Antti Tuomi-Nikula, Mika Gissler, Ari-Pekka Sihvonen, Katri Kilpeläinen and the ECHIM Core Group

IMPLEMENTATION OF EUROPEAN HEALTH INDICATORS – FIRST YEARS







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Final Report of the Joint Action for ECHIM





Publisher

National Institute for Health and Welfare (THL)

Mannerheimintie 166 P.O.Box 30, FI-00271 Helsinki, Finland Tel: +358 29 524 6000 www.thl.fi

ISBN 978-952-245-691-5 (print) ISSN 1798-0070 (print)

ISBN 978-952-245-692-2 (pdf) ISSN 1798-0089 (pdf)

URN:ISBN:978-952-245-692-2 http://urn.fi/URN:ISBN:978-952-245-692-2

www.thl.fi www.echim.org Make-up, layout and cover: Riitta Nieminen, THL

Juvenes Print - Tampere University Print Tampere 2012 © Authors, National Institute for Health and Welfare (THL) and European Union

Neither the European Commission nor any person acting on its behalf is responsible for any use that might be made of the following information. The information contained in this publication does not necessarily reflect the opinion or the position of the European Commission. This publication arises from the project "Joint Action for ECHIM" which has received funding from the European Union in the framework of the Health Programme.

CONTENTS

FC	DREWORD	7
ΑŒ	CKNOWLEDGEMENTS	9
E)	(ECUTIVE SUMMARY	12
1.	INTRODUCTION	15
	1.1. Why do Member States and EU need health information?	15
	1.2. Before the Joint Action: ECHI(M) 1998–2008 and its role in EU health	
	1.3. How to create a sustainable health monitoring system?	
	1.4. The organisation of this report	
2.	AIMS OF THE JOINT ACTION FOR ECHIM	21
	2.1. ECHI shortlist development	22
	 2.2. Implementation of ECHI Indicators in the participating countries 2.3. Gathering, analysing, interpreting and disseminating health information 	
	in the EU	23
3.	ORGANISATION, NETWORKS, COMMUNICATIONS	24
	3.1. ECHIM Partners, Core Group and Extended Core Group	24
	3.2. Developing the network with participating countries	25
	3.3. Networking with and support by the European Commission	25
	3.4. Role and resources of communications	
	3.5. Communication actions and public relations	
	3.6. Lessons learned, conclusions and recommendations	28
4.	ECHI INDICATORS AND THEIR DEFINITIONS	
	4.1. Indicator development and documentation	
	4.2. The 2012 version of the ECHI shortlist	
	4.3. Documentation of ECHI shortlist indicators	
	4.4. Revised procedure for updating the ECHI shortlist	
	4.5. Lessons learned, conclusions and recommendations	37
5.	IMPLEMENTATION PROCESS FOR ECHI INDICATORS IN PARTICIPATING COUNTRIES	39
	5.1. State of affairs at the end of the first phase of ECHIM in 2008	39
	5.2. Main aims and guidelines regarding implementation	43
	5.3. Initial steps in implementation	
	5.3.1. Communication Survey	
	5.3.2. Communication Plan	
	5.3.3. Indicator Data Availability Sheet	
	5.3.4. Implementation plan	
	5.4. Overview of the implementation process and timetables	
,		
6.	IMPLEMENTING THE ECHI INDICATORS IN PRACTICE	
	6.1. Introduction	
	6.2. Implementation work at the EU/ECHIM level	
	0.4.1. Use of international data sources)0

	6.2.2. Use of European Health Interview Survey data	
	6.2.3. Use of European Health Examination Survey data	
	6.2.4. ECHIM Pilot Data Collection	
	6.2.5. The role of the HEIDI Data Tool	
	6.2.6. Summary of achievements and prospects	
	6.3. Implementation work in countries	
	6.3.1. Incorporation of ECHI into the national health information systems	
	6.3.2. Examples of implementation in selected European countries	
	6.3.2.1. Lithuania	
	6.3.2.2. Czech Republic	
	6.3.2.3. Spain	
	6.3.2.4. Netherlands	
	6.3.3. Overview of the implementation of the ECHI Indicators in Europe	
	6.4. Lessons learned, conclusions and recommendations	93
7.	THE NEW ECHI DATA	96
	7.1. Background	96
	7.2. Methods	
	7.3. Results.	
	7.4. Presentation of the ECHI data with the HEIDI Data Tool	
	7.5. Remaining issues concerning the HEIDI Data Tool and the gathering	
	of national data	102
_		
8.	ECHIM, DG SANCO AND EUROSTAT COLLABORATION	
	8.1. DG SANCO actions to support ECHI work, 1998–2012	
	8.2. Central data repository, data collection and dissemination	
	8.3. Role of Eurostat in the ECHI work	
	8.4. Other collaboration and communication	
	8.5. Lessons learned, conclusions and recommendations	110
9.	CONTINUING IMPLEMENTATION AND MAINTAINING ACHIEVEMENTS AT	
	EU LEVEL AND NATIONALLY	111
	9.1. How to maintain a health indicator system for the EU?	111
	9.2. Future European Health Monitoring and Reporting system based on ECHI	
	Indicators	111
	9.3. Tasks of the central health monitoring capacity	112
	9.3.1. Maintaining and improving the ECHI shortlist	112
	9.3.2. Central health indicator database and data presentation tool	
	9.3.3. Supporting the Member States in the implementation of ECHI	
	9.3.4. Collaboration with international organisations	
	9.3.5. Regular evaluation of the system meeting the needs of the users	
	9.3.6. Implementation work at national level	116
	9.3.7. Using ECHI Indicators in the European Commission's health reporting	
	products	116
	9.3.8. Analysing and interpreting the data, and assessing their impact on	11/
	health policy jointly with Member States.	
	9.4. Structure and implementation	
	9.5. The need for interim arrangements	
	7.0. 11 proposar to cusure minimum functions	120
10	. RECOMMENDATIONS	123

ANNEXES	125
Annex 1. The letter to promote Joint Action for ECHIM; sent out by DG SANCO to national health attachés in 2011	126
Annex 2. ECHIM Press Release, published in Ljubljana in September 2009	128
Annex 3. ECHIM Press Release, published in Rome in September 2011	130
Annex 4. ECHIM promotional leaflet, published in 2010	132
Annex 5. Supplementary ECHIM brochure, published in 2010	134
Annex 6. Country Specific Section	135

FOREWORD

Public health policy needs solid health information derived from valid and comparable sources to be able to define and develop health indicators for monitoring and developing purposes. This information should be available locally, regionally, nationally and internationally, and it should be relevant and cover different health aspects, such as health status, health determinants and the health system, including health care services and health promotion. Despite long-term efforts, many European countries still lack data for key health indicators. For some of the existing health indicators there is still a problem of a lack of comparability between countries. This has led to health information being inadequately used in health policy and health policy development.

The work on the European Community Health Indicators (ECHI) started back in 1998. The first projects in 1998–2001 and 2002–2004 focussed on creating a short list of core health indicators for health monitoring. The third project ECHIM – where the M stands for monitoring – was funded from 2005–2008 with the aim of operationalising and further developing the ECHI Indicators and initiating their implementation in most European Union Member States, as well as providing a foundation for a permanent Health Monitoring System in Europe. The Final Report was published in 2008.

In the same year, the Directorate General for Health and Consumers at the European Commission launched Joint Actions as a new form of collaboration between Member States at the European level. The fourth ECHI project was funded for the years 2009–2012. Its aims were a) to improve, document and maintain the ECHI Indicators, b) to develop guidelines and Member State specific plans for implementation of ECHI shortlist indicators at national, regional and EU-level, c) to implement ECHI shortlist indicators in Member States, and d) to achieve good coverage and to maintain a network of national health indicator experts for ECHI Indicators and the necessary data collection.

A central part of the work in the Joint Action for ECHIM was to collaborate with the 36 participating countries and the relevant international organisations in implementing the core health indicators at national level. The ECHI shortlist was also updated and developed further to increase comparability within Europe. A special effort was made to adjust EHIS (final version) and ECHI so that EHIS would allow the calculation of the ECHI shortlist indicators, which was essential since EHIS is to be used in data collection throughout Europe from 2014 on. All adjustments were done in close collaboration with Eurostat and national experts on health surveys. The Joint Action for

Katri Kilpeläinen, Arpo Aromaa and the ECHIM Core Group (Editors): European Health Indicators: Development and Initial Implementation. Final Report of the ECHIM Project. Publications of the National Public Health Institute B 31/2008.

ECHIM further conducted a pilot data collection of those indicators which were not yet available in the international health databases of Eurostat, OECD and WHO. This effort was essential to understand the challenges and the complexity of international comparisons of these indicators.

Finally, the Joint Action for ECHIM prepared a full documentation of all the ECHI shortlist indicators, which is and will be very useful for all users of the indicators. These Documentation Sheets contain the definition of each indicator, a description of its calculation, what data source is recommended by the experts of ECHIM, the rationale as well as more information that is essential when using data.

The ECHI Indicators can be viewed as a full health information system as they cover all aspects that are needed for monitoring the health of European citizens. Let us not forget that the ECHI Indicators are very important when it comes to health reporting as they serve the purpose of harmonising the data collection, analyses and interpretation in the Member States when measuring the impact of health policy or for setting new policy. The Joint Action for ECHIM has prepared a good documentation and methods to support the national and international work on health indicators, health monitoring and health reporting.

Luxembourg, May 2012

Sigurlaug Hauksdóttir, European Commission

ACKNOWLEDGEMENTS

The project leader and co-ordinator thank all ECHIM Core Group members for their invaluable and continuous participation and support. In addition, they want to acknowledge the very constructive communication with DG SANCO and Eurostat.

The ECHIM Core Group comprised the following persons:

- Belgium: Jean Tafforeau¹
- Czech Republic: Jiří Holub², Šárka Danková²
- Estonia: Liis Rooväli³, Kristina Köhler³
- Finland: Mika Gissler⁴ (project leader; followed Arpo Aromaa), Antti Tuomi-Nikula⁴ (project co-ordinator; followed Johanna Mäki-Opas and Elina Kestilä-Kekkonen), Marja Lampola⁴ (financial secretary; followed Ninni Vanhalakka), Ari-Pekka Sihvonen⁴, Katri Kilpeläinen⁴, Jari Kirsilä⁴, Seppo Koskinen⁴, Kari Kuulasmaa⁴
- Germany: Jürgen Thelen⁵, Nils Kirsch⁵, Livia Ryl⁵
- Greece: Aris Sissouras⁶, John Kyriopoulos⁷.
- Ireland: Hugh Magee⁸
- Italy: Emanuele Scafato⁹, Silvia Ghirini⁹
- Lithuania: Remigijus Prochorskas¹⁰, Rita Gaidelyte¹¹, Ausra Zelviene¹¹, Romualdas
- Gurevicius¹¹
- Netherlands: Peter Achterberg¹², Pieter Kramers¹², Marieke Verschuuren¹², Eveline van der Wilk¹², Maartje Harbers¹²
- Slovenia: Polonca Truden-Dobrin¹³
- Spain: Pedro Arias Bohigas¹⁴ (followed Mónica Suarez, Angela Blanco).
- Sweden: Susanne Holland¹⁵ (followed Magnus Stenbeck)
- United Kingdom: Clare Jones¹⁶ (followed: Hugh Markowe), John K. Davies¹⁷
- WHO Regional Office for Europe: Enrique Loyola¹⁸
- OECD: Gaetan Lafortune¹⁹
- Eurostat: Bart De Norre²⁰, Lucian Agafitei²⁰, Albane Gourdol²⁰
- DG SANCO, Unit C2, Health Information: Sigurlaug Hauksdóttir²¹ (followed Federico Paoli and Guðrún Kr Guðfinnsdóttir)
- The European Commission: Stefan Schreck (followed Nick Fahy), Fabienne Lefebvre, Elvira Göbel
- Executive Agency for Health and Consumers (EAHC): Dirk Meusel.

In addition to the ECHIM Core Group members, the following national experts have contributed to the creation of the Country Specific Section by replying to the Communication Survey, writing the National Implementation Plan and National Communication Plan and filling in the Indicator Data Availability Sheet for their countries. Their input has been priceless.

- Albania: Enver Roshi²²
- Austria: Jeannette Klimont²³
- Belgium: Herman Van Oyen²⁴, Françoise Renard¹, Denise Walckiers¹, Michel Willems²⁵ (followed Leïla Bellamammer), Dirk Moens²⁶
- Bulgaria: Jordan Arnaudov²⁷, Krasimira Kirilova Dikova²⁷
- Croatia: Marina Kuzman²⁸
- Cyprus: Pavlos Pavlou²⁹, Maria Athanasiadou²⁹
- Denmark: Anne Illemann Christensen³⁰ (followed Eva Hammerby and Mette Ide Davidsen)
- Estonia: Maali Käbin³¹, Riina Tilk³¹, Mare Ruuge³¹, Luule Sakkeus³²
- France: Gérard Badeyan³³ (followed Alain Fontaine)
- Hungary: György Surján³⁴, Brigitta Gyebnár³⁵, Ágnes Ratalics³⁵, Maria Benyi³⁶, Gabriella Merth³⁴
- Iceland: Guðrún Kr Guðfinnsdóttir³⁷
- Kosovo: Naser Ramadani³⁸
- Latvia: Dace Mihalovska³⁹ (followed Ivo Karaskevics)
- Luxembourg: Guy Weber⁴⁰, Yolande Wagener⁴⁰.
- Malta: Neville Calleja⁴¹, Miriam Gatt4¹
- Moldova: Oleg Barba⁴², Petru Crudu⁴², Natalia Cernat⁴²
- Norway: Heidi Lyshol⁴³ (followed Cassie Trewin)
- Poland: Roman Topor-Madry⁴⁴
- Portugal: Paulo Jorge Nogueira⁴⁵ (followed José Luís Castanheira)
- Romania: Razvan M. Chereches⁴⁶
- Serbia: Jasmina Grozdanov⁴⁷
- Slovakia: Iveta Rajnicova-Nagyova⁴⁸
- Slovenia: Polonca Truden-Dobrin⁴⁹
- Switzerland: Renaud Lieberherr⁵⁰
- Turkey: Fehmi Aydınlı⁵¹
- United Kingdom: Caroline Hall¹⁷, Susan Mayne⁵²

Scientific Institute for Public Health. Brussels.

² Institute of Health Information and Statistics of the Czech Republic. Prague.

Ministry of Social Affairs of Estonia. Tallinn.

⁴ National Institute for Health and Welfare. Helsinki.

⁵ Robert Koch Institut. Berlin.

⁶ University of Patras. Patras.

National School of Public Health. Athens.

⁸ Department of Health and Children. Dublin.

⁹ National Institute of Health. Rome.

¹⁰ Kaunas University of Medicine. Kaunas.

- 11 Institute of Hygiene. Vilnius.
- National Institute for Public Health and the Environment. Bilthoven.
- 13 Institute of Public Health of the Republic of Slovenia, Ljubljana.
- Ministry of Health and Social Policy. Madrid.
- ¹⁵ Socialstyrelsen, The National Board of Health and Welfare. Stockholm.
- 16 Department of Health. London.
- ¹⁷ University of Brighton. Brighton.
- WHO Regional Office for Europe. Copenhagen.
- 19 OECD Health Division, Paris.
- ²⁰ Eurostat, Unit F5 Education, health and social protection. Luxembourg.
- ²¹ DG SANCO, Unit C2 Health Information. Luxembourg.
- Albanian National Public Health Institute. Tirane.
- 23 Statistcs Austria. Vienna.
- ²⁴ Scientific Institute for Public Health. Brussels.
- ²⁵ Statistics Belgium, Brussels.
- ²⁶ Federal Administration Social Security, Brussels.
- ²⁷ Ministry of Health. Sofia.
- ²⁸ Croatian Public Health Institute. Zagreb.
- ²⁹ Ministry of Health. Nicosia.
- 30 National Institute of Public Health. Copenhagen.
- 31 National Institute for Health Development. Tallinn.
- ³² Estonian Institute for Population Studies, Tallinn University. Tallinn.
- 33 Ministry of Health. Paris.
- National Institute for Strategic Health Research. Budapest.
- 35 Ministry of Health. Budapest.
- National Center for Healthcare Audit and Improvement. Budapest.
- ³⁷ Directorate of Health. Seltjarnarnes.
- National Institute of Public Health. Priština.
- 39 Centre of Health Economics. Riga.
- 40 Ministry of Health. Luxembourg.
- ⁴¹ Ministry of Health, the Elderly and Community Care. Guardamangia.
- ⁴² National Centre of Health Management. Chişinău.
- 43 Norwegian Institute of Public Health. Oslo.
- 44 Institute of Public Health, Krakow.
- 45 Ministry of Health. Lisbon.
- ⁴⁶ Institute for Social Research, Babeş-Bolyai University. Cluj-Napoca.
- 47 Institute of Public Health. Belgrad
- 48 KISH Safarik University. Košice.
- ⁴⁹ Institute of Public Health. Ljubljana.
- ⁵⁰ Federal Statistical Office. Neuchâtel.
- 51 Ministry of Health. Ankara.
- 52 The Information Centre for Health and Social Care. Leeds.

EXECUTIVE SUMMARY

Technical Information

Project financed by the	General Directorate Health and Consumer Protection / The		
European Commission	second Programme of Community Action in the Field of Health		
	2008–2013		
Title of the Joint Action	Joint Action for European Community Health Indicators and		
	Monitoring (Joint Action for ECHIM)		
Reference number of the Joint	2008 23 91		
Action			
Duration of the Joint Action	1.1.2009–30.6.2012 (36+6 months)		
Project Leader	Professor Arpo Aromaa (1.1.2009–31.12.2011) and Professor Mika		
	Gissler (1.1.2012–30.6.2012). National Institute for Health and		
	Welfare, P.O. Box 30, FI-00271 Helsinki, Finland.		
DG SANCO representatives	Sigurlaug Hauksdóttir		
Countries involved	EU Member States: Austria, Belgium, Bulgaria, Cyprus, Czech		
	Republic, Denmark, Estonia, Finland, France, Germany,		
	Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg,		
	Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia,		
	Spain, Sweden, United Kingdom		
	EU Candidate Countries: Croatia, Iceland, Serbia, Turkey		
	Other countries: Albania, Kosovo, Moldova, Norway, Switzerland		
Report Status	Final Report		
Date	July 2012		

BACKGROUND: Public health policies aim to improve and maintain the health of citizens. Relevant data and indicators are needed for health policy based on factual information. After 14 years of work (1998–2012), the multi-phase action on European Community Health Indicators (ECHI) has created a health monitoring and reporting system. It has generated EU added value by defining an ECHI shortlist with 88 key health indicators for Europe. Recent work has focussed on implementing the indicators in the participating countries and on improving their comparability across countries.

METHODS: The work was based on the needs revealed by the observations during the previous ECHI phases. Joint Action for ECHIM created a model for the implementation plans for ECHI Indicators. This was a basis for the National Implementation Plans that were drafted by the national key members of the network. ECHIM secretariats provided feedback to the countries and followed up their progress during the Joint Action for ECHIM. The network of national experts was created in the previous ECHI phases and was kept up to date during the Joint Action for ECHIM. In order to assess the availability of those ECHI Indicators not yet available in international databases, a Pilot Data Collection was carried out in the participating countries. The European Commission's HEIDI Data Tool was the central data gathering and dissemination

application. Joint Action for ECHIM participated in the process by providing data for ECHI Indicators and by implementing its methodological checks and definitions.

ADDED VALUE TO THE EUROPEAN COMMISSION: The Joint Action for ECHIM contributed directly to the 2008–2013 Health Strategy of the European Commission. It has increased efforts to improve the comparability of health indicators in Europe and highlighted new data developments, based on policy needs at EU and national level. The ECHI indicator system completes the other international databases (Eurostat, WHO, OECD) as it a) has a stricter focus on the most relevant health issues at EU and national level, b) puts increased efforts on improved comparability between countries, c) highlights new data collection developments on the basis of policy needs, including the monitoring of socio-economic health differences, d) supports the data flow between the European Commission and the Member States, and e) provides an intermediary presentation tool between the primary databases and their end users.

RESULTS: The ECHI shortlist was introduced in 2005. Since then, the indicator metadata have been improved and documented, and the ECHI shortlist updated in 2008 and 2012. The previous versions comprised an Implementation and a Development section. A more precise definition of the indicators and a stronger focus on implementation led to splitting the Development section into a separate Work-in-progress and Development sections. Before the indicators in the Development section can be implemented, major methodological or data problems need to be solved.

Currently, 67 of the ECHI Indicators are already part of regular international data collections and thus available for the majority of participating countries, 14 are close to ready and 13 still need development work. In the Pilot Data Collection for 20 ECHI Indicators, at least some data were provided by 25 countries.

By mid-2012, half of the participating countries will have incorporated ECHI Indicators into their national health information systems and the process is ongoing in the majority of the countries. DG SANCO has taken steps towards a sustained activity by developing the HEIDI Data Tool for presentation of health data and information. The aim for sustainable public health monitoring is also supported by the Eurostat regulation on public health statistics requiring that health statistics shall be provided according to the ECHI methodology.

CONCLUSIONS: The EU needs a permanent health monitoring and reporting system. The Joint Action for ECHIM has set an example for the implementation of such a system which can maintain and develop the ECHI indicators, maintain a central indicator database and data presentation tool, and promote and encourage the use of ECHI in health reporting and health policy making. Further efforts at DG SANCO

and Eurostat are needed towards the permanent health monitoring system. Also further support is needed for the EU Member States and other participating countries to incorporate ECHI Indicators in their national health information systems.

KEYWORDS: health indicators, health monitoring, health reporting.

1. INTRODUCTION

Katri Kilpeläinen, Mika Gissler, Sigurlaug Hauksdóttir

1.1. Why do Member States and EU need health information?

Public health policies aim at maintaining and improving the health of citizens, including actions to reduce health inequalities. These policies have to be based on factual information, in other words, on relevant data and indicators. Measures can thus be targeted and their impact assessed correctly. Time trends allow for an assessment of policy measures and identifying future needs. It is known that reductions of risk factors significantly reduce morbidity and mortality. Nevertheless, rather than basing their health policies on a description of health status and health determinants, most countries continue to rely on traditional mortality figures due to the lack of data for many health indicators. This partly reflects different health information systems in particular countries and their historical developments and information needs.

International health data are currently gathered and disseminated by the World Health Organization (WHO), Eurostat and the Organisation for Economic Co-operation and Development (OECD), but also other international actors collect data about specific areas of health, such as cancers, infectious diseases and congenital anomalies. Both the lack of organisation and coordination in this field and the variation in indicators, data collection methods and calculation methods have led to much extra work and confusion among the data users. In response to that problem, WHO, Eurostat and OECD have launched some joint data collections in the recent years – first through the Joint Health Accounts Questionnaire at the end of 2005, and second through the Joint Questionnaire on non-monetary health care statistics in 2010 (with a planned extension in 2013). These joint data collections are improving the availability and comparability of data on health expenditure and financing across countries, while reducing the data collection burden on national administrations.

Well-targeted health promotion and health protection actions are impossible without a joint and comprehensive health information system that provides the key health indicators. Availability of representative population-based health data is a prerequisite for identifying public health problems locally, regionally, nationally and internationally. Moreover, indicators must be comparable if they are to support planning and policy. Any differences identified in international, national and population group comparisons can provide the initiative for improving health status and health systems. Therefore, the European Union needs a joint health information system to help Member States carry out their public health responsibilities by providing European-wide comparable information also for assessing national needs and for benchmarking national

achievements. Implementing relevant health indicators is an essential starting point for a European health monitoring and reporting system, which is required for identifying EU health priorities.

High quality health information serves EU and all Member States by directing health and other policies and relevant health and welfare services toward fulfilling health needs. A health information system organises and maintains health data collection, storage, analysis, gathering, transfer, retrieval, calculation of health indicators, and health reporting in a coherent and integrated manner. Its goal is to allow all professional users to utilise, interpret and share information so as to transform it into knowledge and action. Comparative health information is of great practical use also for politicians, journalists, teachers, students, researchers, and the general population. Health information is a driving force towards better health as well as towards equity in health and the provision of health care services, since it reveals both the needs and inequalities, which must be tackled simultaneously.

The European Parliament has been calling for an effective health information system since the 1990s. The first step on the road to harmonisation was the launch of the European Commission Health Monitoring Programmes in 1993. Under this Programme, projects were financed to develop harmonised health indicators.² In 1996, at the request of the European Parliament, the European Commission set up a working group to draft a proposal on how to organise health monitoring in the European Union.³ The following year, the Amsterdam Treaty of 1997 provided harmonised instructions in regard to the public health responsibilities of Member States.⁴ At the same time, a succession of infectious diseases epidemics created rising public expectations and awareness of the need for health monitoring and control of communicable diseases. The monitoring of noncommunicable diseases and health status has in general remained less comprehensive.

The multi-phase action "European Community Health Indicators" (ECHI, ECHI-2, ECHIM, and Joint Action for ECHIM) has been successful in creating a solid foundation for implementing health indicators in the Member States and at EU level. Analysis of the results on health trends and health differences between Member States and population groups will allow the EU and its Member States to assess health needs, to target health policy interventions and to assess their effects as well as to plan health

² Commission of the European Communities. Commission communication on the framework for action in the field of public health. Brussels; 1993 24 November. Report No.: COM (93) 559.

³ Aromaa A. Health monitoring for the European Union. A report of an expert group set up by the commission to advise on the organisation of health monitoring. Helsinki: National Public Health Institute, 2000.

European Communities. Treaty of Amsterdam. Amending the treaty on European Union, The treaties establishing the European communities and certain related acts. Official publication of the European Communities. Luxembourg. Office for Official Publications of the European Communities; 1997. Report No.: C 340.

care. Major implementation efforts will be needed in the years to come to improve the current health information system both nationally and internationally.

1.2. Before the Joint Action: ECHI(M) 1998–2008 and its role in EU health

While most European Commission funded health projects have been concerned with specific diseases or health determinants, the action for developing and implementing European Community Health Indicators has taken a more comprehensive approach in establishing a European health monitoring system. During the period 1998–2008, the ECHI projects joined forces with experts from all Member States to develop a list of 88 of the most needed health indicators in Europe (ECHI Indicators). ^{5, 6, 7}

ECHI (1998–2000) and ECHI-2 (2001–2004) established the first versions of both the shortlist and longlist of ECHI Indicators for the European Commission. These indicators focus on general public health issues, and are designed to provide a comprehensive overview on health. After 2005, only the ECHI shortlist has been further developed and implemented. Both ECHI projects were co-ordinated by the Dutch National Institute of Public Health and Environment (RIVM).

ECHIM (2005–2008) followed the work of the ECHI and ECHI-2 projects. It was co-ordinated by Finland's National Public Health Institute (currently: National Institute for Health and Welfare). ECHIM was one of the core actions of the European Commission's Public Health Programme 2003–2008, which mandated the creation of a health information and knowledge system. In this context, ECHIM played a central role by drawing together experts from all Member States and international organisations to consider a) which health indicators are needed at EU level, b) which data will be needed to establish them, and c) which actions are needed to implement them. As a result, ECHIM laid the foundation for indicator implementation in all EU Member States. It defined the ECHI shortlist into its current form, checked the availability of data in Member States through the ECHIM Survey and also Bilateral Discussions, and produced the Final Report where the whole process was documented.⁵ It was a logical continuation of ECHI and ECHI-2, and a bridge from the indicators to practical implementation.

Kilpeläinen K, Aromaa A, the ECHIM Core Group, editors. European health indicators: Development and initial implementation. Final report of the ECHIM project. Publications of the National Public Health Institute B 31/2008.

Kramers P, the ECHI team, editors. Public health indicators for the European Union: Context, selection, definition. Final report by the ECHI project phase II. Bilthoven: Centre for Public Health Forecasting. National Institute for Public Health and the Environment, 2005.

Kramers P. The ECHI project. Health indicators for the European Community. European Journal of Public Health 2003;13:101–106.

The European Commission's Directorate General for Health and Consumers (DG SANCO) has used the ECHI shortlist as a useful frame of reference for the work of their 5-years Health Programmes. However, a sustainable way to continue the implementation at EU level and in Member States was needed. The work of the Joint Action for ECHIM (2009–2012) was firmly anchored to major previous achievements: it leaned on the previous EU work (projects funded by Health Programmes and the statistical work conducted by Eurostat), and in particular it built on its predecessors ECHI, ECHI-2 and ECHIM projects. It developed more precise definitions of the ECHI indicators, and started their implementation in all Member States. The focus was on collecting and disseminating comparable health data and information based on the ECHI shortlist of 88 key health indicators in all EU Member States. This supports the EU Health Strategy and the key outcome is improved and comparable health data across Europe. The work was carried out in close collaboration with the Member States, the European Commission, Eurostat, the WHO Regional Office for Europe, the OECD and other international organisations. Through Joint Action for ECHIM, the long-term expert work on indicators initiated more than ten years ago was now implemented. The Joint Action for ECHIM was financed by the European Commission together with the Member States, and it formed the basis for common efforts in all Member States.

The Joint Action for ECHIM clearly contributes to the 2008–2013 Health Strategy of the European Commission.⁸ The ECHI indicator system completes the other international databases (Eurostat, WHO, OECD) in that it:

- Has a stricter focus on the most relevant health issues, at the level of the EU and its Member States,
- Puts increased efforts into improved comparability between countries,
- Highlights new data collection developments on the basis of policy needs, including the monitoring of socio-economic health differences,
- Supports the data flow between the Commission and the Member States,
- Provides an intermediary presentation tool between the primary databases (notably Eurostat and the Member States) and the end users,
- Optimises the evidence base for policy makers,
- Profits greatly from the extensive network of national experts and EU-funded projects.

Commission of the European Communities. White paper. Together for Health: A Strategic Approach for the EU 2008-2013. Brussels 23.10.2007.
www.ec.europa.eu/health-eu/doc/whitepaper_en.pdf.

The Joint Action for ECHIM has focussed on important public health issues throughout the EU. It has increased efforts to improve the comparability of health indicators in Europe and highlighted new data developments, based on policy needs at EU and national level. DG SANCO has supported the ECHI work by developing the HEIDI Data Tool, of compiled with data according to the ECHI shortlist. Other developments that add to sustainability are the development of the European Health Interview Survey (EHIS), and of the Eurostat regulation on statistics for public health and health and safety at work, which all refer to the ECHI shortlist. All of this supports the improved comparability of data across countries, which is an essential basis for evidence-based health policies.

Finally, the Member States have been involved in all the development steps of ECHI and ECHIM, and they increasingly use the ECHI shortlist for their own health information strategies. Nevertheless, despite years of work, substantial efforts are still needed at European Commission level and nationally, to build-up and maintain a sustainable, easily accessible evidence-base for policy makers and other professionals.

The ECHI Indicators are to be integrated in all national health information systems. The success and future of ECHI depends on the ability of a central EU institution to organise and implement the collection and use of ECHI data at EU level in health monitoring and reporting, and on the ability of countries to provide the required data in a timely fashion with sufficient quality, preferable through international data collection systems. The Member States have a major role to play, since they have to implement ECHIM. Lack of leadership at EU level as well as lack of funding, personnel, and commitment at national level were the main obstacles that slowed down progress in the Joint Action for ECHIM.

The requirements set by the ECHI shortlist cannot always be met; the logical and viable perspective would be to integrate the work on ECHI-defined data with the delivery of data to other international databases, such as the WHO and OECD. This should be seen as one coherent investment of resources, aimed at constantly improving the availability and cross-national comparability of health data.

Finally, health information and knowledge should be emphasised in the forthcoming Health for Growth programme for the years 2014–2020. For all these aims, the Joint Action for ECHIM has prepared good documentation and methods to support the national and international work on health indicators, health monitoring and health reporting.

⁹ European Commission: HEIDI Data Tool. www.ec.europa.eu/health/indicators/indicators/index_en.htm.

The Final Report of the Joint Action for ECHIM consists of three separate reports. This report, "the Main Report", covers the whole project and ECHI shortlist implementation. Reports II and III are supplementary reports that concentrate on two other main deliverables of the project. Report I also covers the main results and conclusions of Reports II and III in brief. All three reports have been linked to each other by cross-referencing. The Reports are:

- I. Antti Tuomi-Nikula, Mika Gissler, Ari-Pekka Sihvonen, Katri Kilpeläinen and the ECHIM Core Group. Implementation Of European Health Indicators – First Years. Final Report of the Joint Action for ECHIM. Reports of the National Institute for Health and Welfare 2012/49.
- II. Verschuuren M, Achterberg PW, Gijsen R, Harbers MM, Vijge E, Wilk EA van der, Kramers PGN. ECHI indicator development and documentation. Joint Action for ECHIM Final Report Part II. ECHIM project partners, 2012.
- III. Thelen J, Kirsch NH, Finger J (Eds.) ECHIM Pilot Data Collection, Analyses and Dissemination, Joint Action for ECHIM Report No.3. Robert Koch Institute, Berlin, Germany (2012).

The first three chapters of this Main Report include the introduction, aims, organisation, networks and communications of the Joint Action for ECHIM. Chapter 4 covers health indicators and their definitions, and summarises the main points of Report II. Chapter 5 describes the process of implementing ECHI Indicators in the Member States. The implementation of the ECHI Indicators in practice is explained in Chapter 6. Furthermore, Annex 6 presents a country specific overview of the progress of implementation in the participating countries. Chapter 7 gives information on the collaboration between ECHIM and international organisations. Chapter 8 describes the new ECHI data, and summarises the main results of Report III. Chapter 9 presents ideas on how the implementation should be continued and how the achievements should be maintained at EU level and in the Member States. Finally, Chapter 10 presents the key recommendations for future work.

All three reports are published as online pdf versions at www.echim.org.

2. AIMS OF THE JOINT ACTION FOR ECHIM

Antti Tuomi-Nikula

The Grant Agreement for a Joint Action, number 2008 23 91 between the Executive Agency for Health and Customers (EAHC) and the participating institutes (THL, HI, ISS, RIVM, RKI) defined the specific objectives of the project as follows (amended in 2011 to include also 6–9):

- 1. to improve, document and maintain the ECHI Indicators
- 2. to develop guidelines and country-specific plans for the ECHI shortlist implementation in participating countries, at regional and EU-level, as needed
- 3. to implement the ECHI shortlist indicators in participating countries and to achieve good coverage
- 4. to maintain a network of national health indicator experts for ECHI Indicators and the necessary data collection
- 5. to design the data flow for the shortlist indicators not yet available in international sources
- 6. to support the EC in producing an electronic data presentation based on the ECHI shortlist indicators in HEIDI, which is hosted by the European Commission
- to review the data integration process for the HEIDI Data Tool covering the ECHI shortlist indicators that are available from international databases
- 8. to design and test a pilot data collection of ECHI shortlist indicators that are currently unavailable from international data sources, based on the operationalisation specified in the ECHIM documentation sheets
- 9. to provide the data collected through the pilot data collection for integration into the HEIDI Data Tool
- 10. to produce the first joint analysis and report on data based on ECHI shortlist indicators.

Much work has been done towards these long-term aims in the previous phases of ECHIM. ^{10, 11} During the Joint Action for ECHIM, the aim was to further develop their definitions and content, and to establish them as continuous actions and permanent structures.

Kilpeläinen K, Aromaa A, the ECHIM Core Group, editors. European health indicators: Development and initial implementation. Final report of the ECHIM project. Publications of the National Public Health Institute B 31/2008.

Kramers P, the ECHI team, editors. Public health indicators for the European Union: Context, selection, definition. Final report by the ECHI project phase II. Bilthoven: Centre for Public Health Forecasting. National Institute for Public Health and the Environment, 2005.

Before the Joint Action for ECHIM, the latest major update for the ECHI shortlist was prepared in June 2008. A few new indicators were added bringing the total number of ECHI shortlist indicators to 88, and the indicators were divided into two sections (implementation and development section) instead of the former three. The indicators in the implementation section were intended for gradual implementation during the Joint Action for ECHIM, although some data problems remained. The development section covered typical policy-relevant issues not yet developed into properly defined indicators. Complete metadata for all indicators were compiled in the Documentation Sheets, which included information on definition, calculation, breakdowns, sources, availability etc.

The Joint Action for ECHIM published a new release of the ECHI shortlist and regularly updated the Documentation Sheets. The new release contained improvements and refinements to existing indicator definitions as well as some additions and deletions; all driven by changing policy priorities, new scientific insights and improved ways of collecting health information based on experience in the current and previous ECHI(M) projects. A new shortlist release was put out just before the end of the project. The ECHIM Products website, which contains all detailed information on the ECHI shortlist, was updated accordingly.

Chapter 4 on health indicators and their definitions is a summary of the ECHI shortlist development work carried out during the Joint Action for ECHIM. The work, which covers the Specific Objective 1, is reported in detail in Report II.

2.2. Implementation of ECHI Indicators in the participating countries

EU-level guidelines for implementing ECHI Indicators at national level were prepared first, on the basis of research and development work, know-how of the participating experts, bilateral negotiations, input from each participating country, existing national health information systems and guidelines by Eurostat, the WHO Regional Office for Europe and the OECD. The national and regional guidelines were based on the above although much more detailed local expertise was provided in each country. The guidelines were developed by National Implementation Teams (NIT's) consulting ECHIM experts.

Joint Action for ECHIM worked toward a continuous process of implementation of health indicators in all participating countries. By the end of the project, ECHI Indicators should be recognised as core European health indicators in most of the countries, and they should have been integrated into national health information

systems. The participating countries have driven most of the work forward, with the support of ECHIM. A great asset was the network of national contact persons, which existed to a large part already at the beginning of the Joint Action for ECHIM, as a result of the previous phases of ECHI(M) projects.

Chapter 5 describes in full detail the work covering the specific Objectives 2, 3 and 4, as well as the status of each country in implementing the ECHI Indicators, while Chapter 6 deals with implementing the ECHI Indicators in practice.

2.3. Gathering, analysing, interpreting and disseminating health information in the EU

Together with the participating countries, Eurostat and DG SANCO, a detailed description of data flow and design for comparable health indicators in Europe, and ensuing information about its contents was produced by the Joint Action for ECHIM. A pilot data collection was carried out, concentrating on indicators not yet available in the international databases.

Joint Action for ECHIM presents a report containing outcomes and interpretations of the first analyses of the enhanced data set, i.e. a presentation of comparable information on central health indicators at EU-level and comparing countries, stressing the new indicators retrieved. Participating countries will prepare country specific reports in collaboration with ECHIM.

The work, covering the Specific Objectives 5–9, is described in Report III. It will also contain a description of the DG SANCO hosted HEIDI Data Tool, its purpose and use, content and functionalities, and the data exported to it.

3. ORGANISATION. NETWORKS. COMMUNICATIONS

Antti Tuomi-Nikula, Jari Kirsilä, Arpo Aromaa, Katri Kilpeläinen

3.1. ECHIM Partners, Core Group and Extended Core Group

The ECHIM Core Group comprised almost 40 members. Most of the practical work was carried out by the Central Secretariat in Helsinki (THL) and by the other four Partner Secretariats at the national public health institutes in Berlin (RKI), Rome (ISS), Bilthoven (RIVM) and Vilnius (HI). The other Core Group members were from Belgium, the Czech Republic, Estonia, Greece, Ireland, Slovenia, Spain, Sweden, and the United Kingdom, from international organisations, the OECD, the WHO, and from the European Commission, DG SANCO and Eurostat.

The ECHIM Core Group of experts and the Secretariats was selected to provide high-level European expertise and experience in health policy, health information and knowledge (both at national and EU level), in data gathering using registers and surveys, in data analysis and indicator development, and in health reporting and dissemination of information. Previously, the contributing experts and institutes have also been involved both in the Health Monitoring Programme and in the Public Health Programme. Members of the ECHIM Core Group have participated in or led major, DG SANCO funded projects.

Indicator-related work was mainly carried out in collaboration with the ECHIM Extended Core Group, which covered 36 EU Member States and Candidate Countries and other European countries, similar in practical terms to the previous Working Party Indicators. Contact persons in each of these countries helped to assess the situation and prepare plans for the national implementation of the ECHI Indicators. The responsibility for the implementation was expected to reside with local experts, administrators and organisations (e.g. Ministries of Health, Public Health Institutes, and Statistical Offices). Experts from the WHO Regional Office for Europe and the OECD participated in defining and selecting indicators. Close collaboration was carried out with Eurostat in order to ensure the best possible equivalence of ECHI Indicators with the European Health Interview Survey (EHIS).

ECHIM's tasks were grouped into eight Work Packages. Work Package 1, which was led by RIVM, focussed on developing and documenting the ECHI Indicators. Work

Kilpeläinen K, Aromaa A, the ECHIM Core Group, editors. European health indicators: Development and initial implementation. Final report of the ECHIM project. Publications of the National Public Health Institute B 31/2008.

Package 2 (RIVM) developed the ECHIM Products website. Work Package 3 (THL) implemented health indicators in Northern and Western Europe, whereas Work Package 4 (HI) implemented health indicators in Southern and Eastern Europe. Work Package 5 (RKI) mapped and described data flow concerning the ECHI shortlist indicators. Work Package 6 (THL) coordinated the project, and Work Package 7 (THL) disseminated the results. Work Package 8 (THL) was responsible for arranging an external evaluation of the project.

3.2. Developing the network with participating countries

A network of contact persons ("Country Experts") that later made up the ECHIM Extended Core Group was in place already during the Working Party Indicators work, and many of its members had been involved in European Health Indicator work since the 1990s. The Country Experts were also the main contact persons of their National Implementation Teams (NIT's; more in Chapter 5). Communication and information dissemination in this group was done by email and through a project website (www.echim.org; newsfeed and regular newsletters) and regular meetings. Altogether four ECHIM Core Group meetings (Vilnius 2/2009, Ljubljana 9/2009, Berlin 9/2010 and Rome 9/2011) and three ECHIM Extended Core Group meetings (3/2010, 3/2011, and 3/2012, all in Luxembourg) were held. The ECHIM Partners had short supplementary meetings on every occasion.

The line-ups of ECHIM Partners and the Core Group were quite stable during the entire project, but there were many changes in the network of national contact persons. A group that large is particularly vulnerable, since the contact persons are working on a voluntary basis without compensation for the work done, with only the meeting costs reimbursed. Therefore, commitment levels to ECHIM aims varied, with some institute contact persons having a larger share of their total working time allocated to ECHIM than others. Overall, the ECHIM Extended Core Group did not lose contact in any country, and two new countries (Albania and Kosovo) joined the network during the project.

3.3. Networking with and support by the European Commission

A major obstacle to the implementation of ECHI Indicators at national level was the lack of a formal position for ECHIM, with resources for the NITs also lacking. Thus DG SANCO's role was mainly to give moral support. Since neither ECHIM nor DG SANCO could oblige countries to implement the ECHI Indicators, the approach was

based on a "gentleman's agreement". Countries were supposed to dedicate themselves to the implementation on the basis of recognising the vast importance of having solid and comparable European health data, which is the aim of ECHIM.

ECHIM prepared a letter (Annex 1) to be sent by DG SANCO to Ministries of Health of European countries. The purpose was to give high profile visibility for ECHIM at upper political levels and thus to support the work of the NITs. The letter was delayed and it was sent in 2011. The HEIDI System (Health in Europe: Information and Data Interface; ec.europa.eu/health/indicators/indicators/) was developed while the implementation of the ECHI Indicators proceeded, as an application that would enable visual presentations and international comparisons using the ECHI data. On the other hand, Eurostat kept a close eye on the ECHI Indicators, as the next round of the EHIS survey was in preparation and was to be carried out in 2014. A significant part of the ECHI Indicators was fine-tuned in close collaboration with Eurostat, in order to ensure that ECHI Indicators could be derived from EHIS data.

The HEIDI Data Tool and HEIDI Wiki, the most prominent products of the EU-level implementation of ECHI Indicators, are introduced in more detail in Chapter 7 and particularly in Report III.

3.4. Role and resources of communications

The role of communication in the Joint Action for ECHIM has been to support the implementation of ECHI Indicators in the participating countries. In a situation where no binding statutes or regulations could be applied in the participating countries, communications have been seen as a persuasive means to strengthen the grounds for European health indicator work. By means of communications, the Joint Action for ECHIM has disseminated information about itself and its goals. It has also put forward an outline of the essential public health challenges in Europe and how they could be met through a better supply of health information made possible through the extensive use of ECHI Indicators.

In 2009 the Helsinki Secretariat sent a 14-item questionnaire (ECHIM Communications Survey) to all participating countries to collect information about the status of implementation in each country. This was to provide the Core Group and Helsinki Secretariat with an overview of the different challenges and national characteristics of each participating country in meeting their work. The intention was also to give a boost to the National Implementation Teams in planning their communications and analysing who were the decision-makers or target groups to be addressed and by what means and messages.

Answers were received from 21 countries. The results showed that the countries faced very different situations. In some countries, ECHIM and its goals were virtually unknown. On the other hand, in other countries key decision-makers knew about and were favourable towards ECHIM and its goals, and co-operation was working. Whatever the case, the launch of the implementation seemed to require not only awareness, contacts and good will, but also determined political engagement in a sufficient number of countries. To achieve this momentum, some countries considered it necessary to obtain stronger support from the European Commission, while others called for high profile communications or better resources in data management.

The answers reflected not only national differences in the challenges faced by the countries, but also the differences in how the National Implementation Teams saw their possibilities to influence the political decision-making in their countries. The issue was how to best utilise communications in making good use of science-based information.

The National Implementation Teams were asked to nominate a communications officer to help with the NIT plan and to actualise the communications, as well as for keeping in contact with the ECHIM chief communications officer at the Helsinki Secretariat, and participating in the countries' joint communication campaigns.

3.5. Communication actions and public relations

During the Joint Action for ECHIM, the goal was to arrange participating countries' joint communications operations in pursuance of ECHIM Core Group meetings. The plan was to hold a small scale press conference for the media of the city or country that hosted each meeting, and to compile a press release to be published simultaneously by as many institutes as possible. This was realised with success in Ljubljana, Slovenia in September 2009 (Annex 2), where a news clip for the national TV was aired. In the last Core Group meeting in Rome, September 2011, a press release (Annex 3) was published and shared through a number of institutes. The idea was not only to tell about the results ECHIM had obtained but to outline how to meet the key challenges in public health in Europe.

Communications issues were dealt with in every meeting of Joint Action for ECHIM. It was debated whether communicating the project's goals is enough, or if there is a need for communications that bring up the significance of European Health Indicators as a means to answer the challenges of the European public health in general. The decision-makers need information about the issues, in order to be able to appreciate the tools necessary to the solution.

The Helsinki Secretariat created a six-page English language leaflet (Annex 4) with information about a few of the most topical public health challenges in Europe, and what is known or remains unknown about their incidence, prevalence and risk factors. The leaflet was meant to be supporting visual material for implementing the ECHI Indicators both at national and EU level throughout Europe. A print run of a 1000 copies was distributed to all participating countries and DG SANCO, and a new supply was provided whenever needed. The NITs of Czech Republic, Italy and Lithuania translated the leaflet into their national languages, and used it efficiently in their national implementation actions. A supplementary brochure illustrating ECHIM's role in a larger context was also created – "Creating Health Information for the EU" (Annex 5). It aimed to provide the bigger picture behind the implementation of health information and data in Europe. Other promotional material included pens, folders and notebooks marked with ECHIM's logo and web address.

3.6. Lessons learned, conclusions and recommendations

Given the informal position of the Joint Action for ECHIM, the Extended Core Group held together quite well, and some new members even joined during the project. Still, more upper-level support would have been called for. A mere gentleman's agreement is clearly not enough to ensure a stable and fully participating group. The situation could be improved through either strong financial support or regulation or their combination. The supporting letter by DG SANCO was inevitably necessary, but it would have had a greater impact if it would have been sent earlier and directly to loosely concerned and better-informed people at the national ministries of health. Also, ECHIM could have done better in creating commitment through a more active approach, e.g. with site visits. Sending out questionnaires by e-mail was clearly not enough. However, site-visits would have required more time and financial resources.

Communications were meant to be a persuasive means to influence decision-making in a situation where no binding statutes or regulations can be called upon. However, ECHIM was only able to begin to make full use of the possibilities of communications, while organising a Pan-European communication turned out to be a learning process for both the secretariats and the NITs.

Using communications to influence political decision-making and development action was clearly something new for public health institutes in Europe. They would clearly benefit from more experience in this field. Institutions participating in ECHIM – with their strong traditions in research and development seem to see their roles mainly in the study and development of scientific problems and new systems instead of marketing their work and proposals to decision-makers. To make direct contacts with leading

experts and some decision-makers is more natural than to go public and use the media to promote the cause.

The communication units of institutes participating in ECHIM were centralised and close to the central administration, which contradicted a direct role in the implementation work of ECHIM. It seems that on several occasions from the viewpoint of the institutes, an EU-project may have appeared as an external and detached action with no direct linking with the institutes' key focuses.

In a European project the role of Pan-European organisations is important also in communications, in representing shared European interests. As a matter of fact the use of communications is a very culture-sensitive matter, bound by different national values and paradigms, and it is difficult to give from the outside strong support or guidance on how to use communications in a country. All over our experience with communications stresses the need to incorporate any development work closely into all activities of the national partners.

4. ECHI INDICATORS AND THEIR DEFINITIONS

Marieke Verschuuren, Peter Achterberg, Ronald Gijsen, Maartje Harbers, Evert Vijge, Eveline van der Wilk, Pieter Kramers

4.1. Indicator development and documentation

During the course of the Joint Action for ECHIM much has been achieved in regard of the further development of indicator definitions and the improvement of indicator documentation: A preferred definition, calculation and data source has been selected for as many indicators as possible

- For all the 88 indicators in the ECHI shortlist the Documentation Sheet has been thoroughly revised at least once
- Small updates were processed in the Documentation Sheets on a continuous basis
- A list of operational indicators was compiled and kept up to date
- Structured remarks on comparability were produced for 43 ECHI shortlist indicators
- A revised procedure for updating the ECHI shortlist was developed
- The ECHI shortlist was updated, resulting in the 2012 version of the ECHI shortlist.

4.2. The 2012 version of the ECHI shortlist

The 2012 version of the ECHI shortlist contains 94 indicators in total. These are the same 88 indicators as in the 2008 version of the shortlist, but for six of these both a self-reported and a register-based indicator variant have been defined. This implies that no existing indicators were deleted and no new indicators were added compared to the 2008 version. While the 2008 version had two sections, the 2012 version has three, namely:

- Implementation section
- Work-in-progress section
- Development section

There are 67 indicators in the implementation section, 14 in the work-in-progress section and 13 in the development section. Indicators in the implementation section can readily be used to support policy making, as they are part of regular international data collections and data are available for a majority of the participating countries;

they are ready for implementation at (inter)national level. Indicators in the work-inprogress section technically are (nearly) ready for incorporation in regular international data collections, but there may not yet be concrete plans for this. The development section contains those indicator topics that are not yet ready to be incorporated in international regular data collections (and thus for implementation) due to considerable methodological and/or data availability problems.

For about 25 ECHI shortlist indicators, the European Health Interview Survey (EHIS) is the preferred (interim) source. When the Joint Action for ECHIM was coming to an end, the questionnaire for the envisaged EHIS data collection round of 2014 was not yet finalised. This implies that changes in the definitions, calculations and status (implementation, work-in-progress or development section) of these indicators may still occur.

Table 1. Overview of the 2012 version of the ECHI shortlist

ECHI shortlist indicators	Data source	Status in the 2012 version of ECHI shortlist	Reference: status in the 2008 version
1. Population by sex/age	Eurostat	Implementation section	Implementation section
2. Birth rate, crude	Eurostat	Implementation section	Implementation section
3. Mother's age distribution	Eurostat	Implementation section	Implementation section
4. Total fertility rate	Eurostat	Implementation section	Implementation section
5. Population projections	Eurostat	Implementation section	Implementation section
6. Population by education	Eurostat (LFS)	Implementation section	Implementation section
7. Population by occupation	Eurostat (LFS)	Implementation section	Implementation section
8. Total unemployment	Eurostat (LFS)	Implementation section	Implementation section
9. Population below poverty line and income inequality	Eurostat (EU-SILC)	Implementation section	Implementation section
10. Life expectancy	Eurostat	Implementation section	Implementation section
11. Infant mortality	Eurostat	Implementation section	Implementation section
12. Perinatal mortality	WHO HfA	Implementation section	Implementation section
13. Disease-specific mortality; Eurostat, 65 causes	Eurostat (and CISID for AIDS related mortality)	Implementation section	Implementation section
14. Drug-related deaths	EMCDDA	Implementation section	Implementation section

ECHI shortlist indicators	Data source	Status in the 2012 version of ECHI shortlist	Reference: status in the 2008 version
15. Smoking-related deaths	n.a.	Work-in-progress section	Implementation section
16. Alcohol-related deaths	n.a.	Work-in-Progress section	Implementation section
17. Excess mortality by extreme temperatures (formerly 'by heat waves')	n.a.	Development section	Development section
18. Selected communicable diseases	ECDC	Implementation section	Implementation section
19. HIV/AIDS	EURO-HIV/CISID	Implementation section	Implementation section
20. Cancer incidence	Globocan	Implementation section	Implementation section
21. (A) Diabetes, self-reported prevalence	Eurostat (EHIS)	Implementation section	
21. (B) Diabetes, register- based prevalence	n.a.	Work-in-progress section	- Implementation section
22. Dementia	n.a.	Work-in-progress section	Implementation section
23. (A) Depression, self-reported prevalence	Eurostat (EHIS)	Implementation section	- Implementation section
23. (B) Depression, register-based prevalence	n.a.	Work-in-progress section	
24. AMI	n.a.	Work-in-progress section	Implementation section
25. Stroke	n.a.	Work-in-progress section	Implementation section
26. (A) Asthma , self-reported prevalence	Eurostat (EHIS)	Implementation section	
26. (B) Asthma, register-based prevalence	n.a.	Work-in-progress section	Implementation section
27. (A) COPD , self-reported prevalence	Eurostat (EHIS)	Implementation section	I d w'
27. (B) COPD, register- based prevalence	n.a.	Work-in-progress section	- Implementation section
28. (Low) birth weight	WHO-HFA	Implementation section	Implementation section
29. (A) Injuries: home/ leisure, violence, self- reported incidence	Eurostat (EHIS)	Implementation section	Implementation section
29. (B) Injuries: home/ leisure, violence, register- based incidence	IDB	Implementation section	

ECHI shortlist indicators	Data source	Status in the 2012 version of ECHI shortlist	Reference: status in the 2008 version
30. (A) Injuries: road traffic, self-reported incidence	Eurostat (EHIS)	Implementation section	Implementation section
30. (B) Injuries: road traffic, register-based incidence	UN ECE	Implementation section	Imprementation section
31. Injuries: workplace	Eurostat (ESAW)	Implementation section	Implementation section
32. Suicide attempt	n.a.	Development section	Development section
33. Self-perceived health	Eurostat (EU-SILC)	Implementation section	Implementation section
34. Self-reported chronic morbidity	Eurostat (EU-SILC)	Implementation section	Implementation section
35. Long-term activity limitations	Eurostat (EU-SILC)	Implementation section	Implementation section
36. Physical and sensory functional limitations	Eurostat (EHIS)	Implementation section	Implementation section
37. General musculoskeletal pain	n.a.	Development section	Development section
38. Psychological distress	n.a.	Development section	Implementation section
39. Psychological well- being	n.a.	Development section	Development section
40. Health expectancy: Healthy Life Years (HLY)	Eurostat	Implementation section	Implementation section
41. Health expectancy, others	EHEMU/EHLEIS project	Work-in-progress section	Implementation section
42. Body mass index	Eurostat (EHIS)	Implementation section	Implementation section
43. Blood pressure	Eurostat (EHIS)	Implementation section	Implementation section
44. Regular smokers	Eurostat (EHIS)	Implementation section	Implementation section
45. Pregnant women smoking	n.a.	Work-in-progress section	Implementation section
46. Total alcohol consumption	WHO (GISAH)	Implementation section	Implementation section
47. Hazardous alcohol consumption	Eurostat (EHIS)	Implementation section	Implementation section
48. Use of illicit drugs	EMCDDA	Implementation section	Implementation section
49. Consumption of fruit	Eurostat (EHIS)	Implementation section	Implementation section
50. Consumption of vegetables	Eurostat (EHIS)	Implementation section	Implementation section

ECHI shortlist indicators	Data source	Status in the 2012 version of ECHI shortlist	Reference: status in the 2008 version
51. Breastfeeding	WHO-HFA	Work-in-progress section	Implementation section
52. Physical activity	Eurostat (EHIS)	Implementation section	Implementation section
53. Work-related health risks	EUROFOUND	Implementation section	Development section
54. Social support	Eurostat (EHIS)	Implementation section	Implementation section
55. PM10 (particulate matter) exposure	Eurostat	Implementation section	Implementation section
56. Vaccination coverage in children	WHO-HFA	Implementation section	Implementation section
57. Influenza vaccination rate in elderly	Eurostat (EHIS)	Implementation section	Implementation section
58. Breast cancer screening	Eurostat (EHIS)	Implementation section	Implementation section
59. Cervical cancer screening	Eurostat (EHIS)	Implementation section	Implementation section
60. Colon cancer screening	Eurostat (EHIS)	Implementation section	Development section
61. Timing of first antenatal visits among pregnant women	n.a.	Work-in-progress section	Development section
62. Hospital beds	Eurostat	Implementation section	Implementation section
63. Practising physicians	Eurostat	Implementation section	Implementation section
64. Practising nurses	Eurostat	Implementation section	Implementation section
65. Mobility of professionals	n.a.	Development section	Development section
66. Medical technologies: MRI units and CT scans	Eurostat	Implementation section	Implementation section
67. Hospital in-patient discharges, limited diagnoses	Eurostat	Implementation section	Implementation section
68. Hospital daycases, limited diagnoses	Eurostat	Implementation section	Implementation section
69. Hospital day-cases as percentage of total patient population (in-patients & day-cases), selected diagnoses	Eurostat (necessary discharge data available but ratio is not centrally computed yet)	Implementation section	Implementation section
70. Average length of stay (ALOS), limited diagnoses	Eurostat	Implementation section	Implementation section

ECHI shortlist indicators	Data source	Status in the 2012 version of ECHI shortlist	Reference: status in the 2008 version
71. General practitioner (GP) utilisation	Eurostat (EHIS)	Implementation section	Implementation section
72. Selected outpatient visits	Eurostat (EHIS)	Implementation section	Implementation section
73. Surgeries: PTCA, hip, cataract	Eurostat	Implementation section	Implementation section
74. Medicine use, selected groups	Eurostat (EHIS)	Implementation section	Implementation section
75. Patient mobility	Eurostat is regularly collecting data on patient mobility but is not yet publishing these.	Work-in-progress section	Development section
76. Insurance coverage	OECD	Implementation section	Implementation section
77. Expenditures on health	Eurostat	Implementation section	Implementation section
78. Survival rates cancer	EUROCARE	Implementation section	Implementation section
79. 30-day in-hospital case-fatality AMI and stroke	OECD	Implementation section	Implementation section
80. Equity of access to health care services	Eurostat (EU-SILC)	Implementation section	Implementation section
81. Waiting times for elective surgeries	n.a.	Development section	Implementation section
82. Surgical wound infections	n.a.	Development section	Implementation section
83. Cancer treatment delay	n.a.	Development section	Implementation section
84. Diabetes control	n.a.	Development section	Implementation section
85. Policies on ETS exposure (Environmental Tobacco Smoke)	WHO Europe tobacco control (computation of indicator not done centrally yet)	Implementation section	Implementation section
86. Policies on healthy nutrition	n.a.	Development section	Development section
87. Policies and practices on healthy lifestyles	n.a.	Development section	Development section
88. Integrated programmes in settings, including workplace, schools, hospital	n.a.	Development section	Development section

There are different elements in the ECHI indicator documentation. First, there are the Documentation Sheets, which were firstly developed under the previous project phase. The Documentation Sheets contain all the technical information needed for computing the ECHI Indicators. During the Joint Action for ECHIM the need emerged to have a quick overview of the ECHI operational indicators, i.e. the ECHI indicator definitions including the breakdowns required for the indicators according to sex, age, socioeconomic status, and possibly other dimensions. This information can be drawn from the Documentation Sheets, but to support implementation in the participating countries and at the European level, it would be convenient to have an overview of the operational indicators only, without reverting to the more detailed information available in the documentation sheets. Therefore, a list of operational ECHI Indicators was developed and maintained during the Joint Action for ECHIM. Finally, to provide support to policy makers and other target audiences who were making use of ECHI indicator data, the Joint Action for ECHIM provided remarks on (in)comparability through presentations and structured and tailored information about the ECHI Indicators.

Documentation Sheets were developed and maintained for all 88 ECHI shortlist indicators. Operational indicators were defined for the majority of the 88 indicators; for the indicators in the development section and some indicators in the work-in-progress section, this was not possible yet. Remarks on comparability were produced for about half of the indicators on the ECHI shortlist (those indicators for which data are readily available in international databases). All individual Documentation Sheets, lists of operational indicators and remarks on comparability are available in Report II.

4.4. Revised procedure for updating the ECHI shortlist

Based on the 2008 experiences with updating the ECHI shortlist¹³, developing a less complex and less time-consuming updating procedure was defined as one of the goals of the Joint Action for ECHIM. This new procedure was developed in 2010–2011, in conjunction with the country representatives of the ECHIM Extended Core Group. Application of this new procedure subsequently resulted in the 2012 version of the ECHI shortlist, which was presented above.

Kilpeläinen K, Aromaa A, the ECHIM Core Group, editors. European health indicators: Development and initial implementation. Final report of the ECHIM project. Publications of the National Public Health Institute B 31/2008.

The main characteristics of the revised updating procedure are:

- Definition and application of clear criteria for additions or removals of ECHI shortlist indicators, and for section eligibility (implementation section, work-inprogress section, or development section)
- Defining clear criteria makes it possible for the ECHIM secretariat in charge
 of indicator development to play a more important role than during the 2008
 updating round, as they can prepare substantiated proposals, carefully comparing
 the countries' suggested ECHI shortlist alterations against the criteria
- Compared to the 2008 ECHI shortlist update, there is a stronger focus on the
 involvement of country representatives rather than of health information experts
 (this shift is logical considering the current status of the ECHI work, moving from
 indicator development to actual indicator implementation at country level).

The full updating procedure is described in Report II.

4.5. Lessons learned, conclusions and recommendations

Though much has been achieved during the present and previous ECHI(M) project phases as described above, indicator development and keeping the indicator documentation up to date are continuous tasks. After all, data collection methods applied by international data collectors such as Eurostat, the WHO and the OECD are being adapted regularly (due to e.g. new scientific insights, new data needs as expressed by the participating countries), and this may have consequences for the methodology underlying the ECHI Indicators. Moreover, stimulation of harmonisation efforts by the participating countries needs to be continued and the outcomes of these efforts need to be incorporated in the ECHI indicator documentation.

Furthermore, although a large number of the indicators in the ECHI shortlist has been operationalised, there are still some (minor) issues to resolve or specific ongoing developments to keep track of in regard of some indicators. This is documented in the work-to-do-sections of the Documentation Sheets. Indicators in the work-in-progress and development sections of the ECHI shortlist require substantial developmental work.

These different types of activities that need to be maintained in order to keep the ECHI Indicators up to date (i.e. in order to keep the ECHI shortlist functional as a tool) have led to the following specific recommendations for future indicator work:

 Ensure sustainability, quality and efficiency of the ECHI indicator work, through e.g.:

- Making sure that overall coordination is carried out at an overarching health information level, to safeguard the primary goal of the shortlist (= to be a general public health tool)
- Creating and sustaining a (small) "central ECHI unit", which can serve as the central secretariat for the work needed on the indicator documentation
- Maintaining the existing ECHI expert network for providing overall guidance ("institutional memory") and specific input for indicator work.
- Keep the ECHI indicator documentation up to date and easily accessible, through e.g.:
 - Keeping track of developments in the data sources used for ECHI that have consequences for the ECHI Documentation Sheets and operational indicators, and processing these
 - Making the indicator documentation sheets and remarks on comparability accessible via the internet in a sustainable way
 - Evaluating the usefulness and added value of the remarks on comparability and, based on the outcomes of this evaluation, making a plan for their further development and maintenance.
- Work with the supra/international organisations and the participating countries on further harmonisation of existing data collections. In particular, it is of importance here to seek coherence with the development of a single European Health Information system by the European Commission and the WHO.
- Work on improving the implementation-readiness of indicators in the work-inprogress and development section, through e.g.:
 - Stimulating research and developmental work for indicator topics in the development section, through placing the concerned indicator topics in the annual Work Programmes of the Health Programmes (DG SANCO) and/or the Framework Programmes (DG Research).
 - Seeking synergy and coherence as much as possible with other indicator initiatives, both within the Commission (e.g. social protection indicators developed under the OMC) and within international organisations such as WHO Europe and the OECD.
 - Working closely together with Eurostat, WHO Europe and the OECD in order to stimulate the uptake of ECHI indicators in regular data collections (for indicators for which this is not yet the case)
 - Keeping track of the developments in and outcomes of European Commission funded projects, Joint Actions, network, etc.
- Update the ECHI shortlist on a regular basis (e.g. once every 3 years).

5. IMPLEMENTATION PROCESS FOR ECHI INDICATORS IN PARTICIPATING COUNTRIES

Ari-Pekka Sihvonen, Antti Tuomi-Nikula, Arpo Aromaa, Jari Kirsilä

5.1. State of affairs at the end of the first phase of ECHIM in 2008

The implementation process was initiated during the first ECHIM project (2005–2008) by establishing some key core structures. First of all, the availability of health data in the international databases as well as in participating countries was assessed. Second, a network of contact persons covering almost all of the 32 EU Member States, Candidate Countries and EFTA/EEA countries participating in ECHIM was established. Third, the ECHI shortlist was revised and updated, and good progress was made with the development of indicator documentation.

As a first action in ECHIM, data availability for ECHI shortlist indicators in the main international databases (Eurostat, WHO Health for All, OECD Health Data) and some more specific international databases (like ECDC, EMCDDA and EuroHIV) was checked, by indicator and by country, and as a result "Country Reports" of data availability in the international data sources were prepared for all participating countries. The Country Reports helped to identify data availability, gaps and relevant data sources.

Next, an "ECHIM Survey" was done to obtain a general overview of national data availability for those topics and indicators that are not readily available and comparable in international data sources. National data sources, their quality and prospects, as well as potential future data sources were reviewed during this process.

Later, "Bilateral Discussions" (face-to-face interviews) were held with country experts of most of the participating countries, in order to review, clarify and to deepen the country-specific information gathered through the Country Reports and the ECHIM Survey. The focus shifted in the Bilateral Discussions to the implementation of the ECHI Indicators.

The initial findings of the Country Reports, ECHIM Survey, and Bilateral Discussions were summarised by country in Annex 4 of the 2008 ECHIM Final Report1 under the name "Country Specific Section". The key figures and words were further condensed into an "Info Box" for every country, providing an easily accessible overview and comparison between different countries. The following table presents a summary of the implementation preparedness of the countries at the start of the Joint Action for ECHIM, as deducted from these Info Boxes.

Table 2. Overview of the countries in their implementation preparedness at the start of the Joint Action for ECHIM.



Country	Country Report, data availability	ECHIM Survey, data availability	Implementation Prerequisites	Main problem	Main improvement	Main solution
Austria				Funding / manpower	New HIS	Regulation from EC
Belgium				Complex administration	Data sources improving	Regulations from EC / Eurostat
Bulgaria				Funding / manpower	ECHI shortlist already being implemented at least partly	Regulations from EC / Eurostat
Croatia				Funding / manpower	E-health records being implemented	Include ECHI recommendations in national health strategies
Cyprus				No / poor health information system	Data sources improving	Regulations from EC / Eurostat
Czech Rep				No political will / awareness	New HIS / HES	Regulations from EC / Eurostat
Denmark				Funding / manpower	Data sources improving	International comparisons of data
Estonia				Funding / manpower	E-health records being implemented	Include ECHI recommendations in national health strategies
Finland				Funding / manpower	ECHI shortlist already being implemented at least partly	More funding / manpower
France				Complex administration	Policy / legislation in preparation	International comparisons of data / Regulations from EC / Eurostat
Germany				Funding / manpower	National Health Monitoring implemented	Complete ECHI shortlist with definitions needed
Greece				No / poor health information system	New HIS / HES	Include ECHI recommendations in national health strategies
Hungary				No political will / awareness	New HIS / HES	Regulations from EC / Eurostat

Country	Country Report, data availability	ECHIM Survey, data availability	Implementation Prerequisites	Main problem	Main improvement	Main solution
Iceland				Funding / manpower	ECHI shortlist already being implemented at least partly	Include ECHI recommendations in national health strategies
Ireland				Complex Administration	Policy/Legislation in preparation	Co-operation at National Level
Italy				Complex administration	ECHI shortlist already being implemented at least partly	Methodology of indicator calculation
Latvia				Funding	New HIS/HES	New HIS/HES
Lithuania				Complex administration	Record linkage in preparation	Methodology of indicator calculation
Luxembourg				No / poor health information system	Data sources improving	Cooperation at national level
Malta				Funding / manpower	EHIS and work on SHA and HES	National Legislation
Netherlands				Data management	Data sources improving	National cooperation
Norway				No HES	New HIS / HES	Complete ECHI shortlist with definitions needed
Poland				No / poor health information system	Policy / legislation in preparation	More funding / manpower
Portugal				No / poor health information system	Data sources improving	Cooperation at national level
Slovenia				Funding / manpower	Data sources improving	Cooperation at national level
Spain				Complex administration	ECHI shortlist already being implemented at least partly	Include ECHI recommendations in national health strategies
Sweden				Funding / manpower	New HIS / HES	More funding / manpower
Turkey				Funding / manpower	Data sources improving	More funding / manpower
United Kingdom				Complex administration	Data sources improving	Cooperation at national level

The colours in Table 1 refer to the overall level of data availability according to the Country Reports and ECHIM Survey, and level of implementation prerequisites as rated by the country representatives themselves, varying from very good (dark green) to poor (orange).

The following lists the points most frequently mentioned when discussing the possible support for and obstacles to the implementation of ECHI Indicators that emerged from the presentations, discussions, and analysis etc. during the first ECHIM phase:

- Implementation was seen as relatively straightforward in countries where one organisation is in charge of health information.
- In more complex situations, intersectoral co-operation (e.g. across ministries, government departments, national and regional public health and social sector bodies and institutes) can cause problems.
- New national legislation to strengthen the national health monitoring unit or equivalent body was seen as necessary in some countries.
- It was feared that ongoing, recent and forthcoming restructuring of national health
 and social care services or amendments to national legislation (related to health,
 data collection, etc.) would delay the implementation process in some countries.
- Some thought that the economic recession would result in cuts in resources (staff and data collections), in the merger of institutes etc. and thus slowing the implementation process
- Complex administration and strict data protection legislation may hinder the implementation process in some countries.
- Data collection often requires additional resources and organisational structures that in many cases simply are not readily available.
- In many countries, EU-level regulation or legislation on public health statistics
 and indicators was considered much more important to implementing the ECHI
 shortlist in practice than a push from the national level alone.
- Others felt that a Eurostat regulation on public health statistics will not be strong enough to support ECHIM data collection.
- Some felt that the only way to implement new data collections or to improve existing ones is through a mandatory EU regulation. Without such a regulation, implementation will not be successful.
- Also more support (know-how, monetary through projects/working groups/ task forces) from the EU and Eurostat is requested from countries planning to implement and develop e.g. AMI/stroke registers, cancer registers, registers for health care services and quality assurance programmes (e.g. on causes of death registers).

All in all, the Country Specific Section of the 2008 ECHIM Final Report provided the starting point for the concrete implementation work to follow in the next phase of ECHIM, the Joint Action for ECHIM, and hinted to possible problems that could be encountered.

5.2. Main aims and guidelines regarding implementation

What does implementation of the ECHI Indicators mean? In short, implementation of ECHI Indicators means putting them into practical use in every country involved in the Joint Action for ECHIM. Since the steps taken differ by country and by indicator, the implementation must be based on country-specific plans. These country-specific plans were drafted in collaboration with and with the support of the five ECHIM Secretariats and the ECHIM Core Group. For some indicators sufficient data existed at the start of the Joint Action, whilst for others new data sources need to be tapped and new data collections need to be set up.

The core steps in the implementation of ECHI Indicators in the countries were:

- Introducing them to national administrators and decision-makers and planners
- Helping, where necessary and feasible, to modify existing data sources and to set up new ones, in order to meet the ECHI indicator requirements
- Creating a system for data flow and storage from countries to the central ECHI
 database for those data/indicators that are not readily available either in international
 databases or from the European Health Interview Survey, EHIS (collective action
 coordinated by ECHIM Secretariats)
- Setting up a centralised presentation system (collective action coordinated by ECHIM Secretariats)
- Analysing the data and interpreting the results (collective action coordinated centrally by ECHIM Secretariats)
- Using ECHI Indicators in national health policy, planning and reporting
- Using ECHI Indicators in EU-level health policy, planning and reporting
- Some of the actions call for collective centrally co-ordinated actions by the ECHIM
 Secretariats (e.g. data flow, centralised presentation system, and data analysis),
 rather than individual efforts from separate countries.

What are the actions that were expected of the countries and the country experts involved in the Joint Action for ECHIM? In short, carrying out the following six steps were central for progress:

- 1. Setting up a group of at least 3–5 national experts (called National Implementation Team, NIT) working part-time on implementation.
- 2. Checking existing data sources, availability and quality. If needed, support was available from ECHIM Secretariats.
- 3. Drafting an implementation plan on the basis of the general guidelines, to be discussed with ECHIM Secretariats and the ECHIM Core Group.
- 4. Finalising the implementation plan, by taking into account the general timetable of implementation. Setting realistic deadlines for each phase of implementation.
- 5. Carrying out the actions implied in the implementation plan.
- 6. Informing key national stakeholders about the ECHI Indicators, the activities at the EU-level and the national plan for implementing the ECHI Indicators.

It was agreed at the beginning of the Joint Action for ECHIM that four key documents should be drafted by all participating countries: "Communication Survey", "Communication plan", "Implementation Plan", and "Indicator Data Availability Sheet". These documents closely follow and document the implementation steps mentioned above. They also enable monitoring and documenting the progress made in the implementation in each of the participating countries.

The Communication Survey questionnaire is used to identify possible key problems faced in the start of the implementation process and the key national stakeholders and their characteristics.

The Communication Plan is a concrete plan on how to best communicate with the key national stakeholders, and thus it is based on the findings of the Communication Survey. Each country was also asked to nominate a person responsible for communications (a communications officer).

The Indicator Data Availability Sheet is a tool to check national data availability and quality for ECHI Indicators.

The Implementation Plan describes step by step the actions needed and taken towards implementing the ECHI Indicators in the country.

Some guideline documents were prepared by the Helsinki Secretariat together with the ECHIM Core Group on what kind of issues should be tackled in implementation in general, i.e. in Implementation Plans ("Guidelines for Implementation of ECHI Indicators") and more specifically, in communications ("Guidelines for National Communication Plans of Joint Action for ECHIM"). Also a template excel sheet for indicator data availability was prepared.

All the country-specific documents and the guidelines mentioned above were made available to all Joint Action ECHIM members via the ECHIM extranet.

5.3. Initial steps in implementation

5.3.1. Communication Survey

Communication was one aspect of implementation that was expected to be important to support implementation proper of the ECHI Indicators. Thus it was felt that issues related to communication should be emphasised right at the start of the Joint Action for ECHIM. Furthermore, it was deemed worthwhile, at the beginning of the Joint Action for ECHIM, to try to identify the common challenges countries expected to face when carrying out the implementation tasks. It was also hoped that based on the results of that exercise, the ECHIM Secretariats would be able to better support the countries in their implementation work and would also be better able to find optimum solutions to common problems that several countries confront and share. Thus a so-called "Communication Survey" was conducted at the start of the Joint Action.

The Communication Survey questionnaire was designed to tackle what were seen by the ECHIM Core Group as the key tasks at the very start of the implementation in each participating country, i.e. before drafting an actual implementation plan Thus it was seen as the starting point, which would also identify possible key problems, and point to their possible solutions, to identify the key stakeholders and, furthermore, how to best communicate with them.

The items of the Communication Survey were the following:

- The respondents were first asked to list the four most important obstacles they
 expected to meet with the implementation in their country, as described in the
 2008 ECHIM Final Report1, taking into account what has happened since the
 publication of the report. Thereafter, the respondents were asked to provide their
 view on the most efficient practical solutions for the problems they had identified.
- Next the persons (or organisations or institutes) best able to help solve each of the
 problems listed in the first question were identified. Besides national key persons
 and/or groups of professionals, politicians or administrators in the field of health
 information, they could also be governmental institutions, as well as national,

European or international disease-group related (e.g. cardiovascular, diabetes etc.) associations. The influential groups may also exist in international settings. Since much of rest of the survey was based on the response to this question (i.e. what are key persons and/or groups), particular attention to this issue was called for.

- Next, an inquiry was made as to whether the members of the National Implementation Team (NIT) had close/some/no contacts with these key persons or groups identified in the previous question. If no contacts had been established to some of these persons and groups, what could be done in order to establish at least some contact? And what would be the best ways to keep in touch with them, or to talk to them so as to have a stronger influence on their views? Furthermore, what would one suggest that ECHIM and the National Implementation Team could do to increase its credibility among the key persons and groups in one's country?
- At the end of the questionnaire, it was asked what kind of (concrete) support for the implementation work could the National Implementation Teams expect from the ECHIM Secretariats in charge of the implementation (THL, HI, RKI and ISS) on the one hand, and from the representatives of the European Commission (DG SANCO) and Eurostat (that support ECHIM and work in close collaboration with it in the ECHIM Core Group) on the other hand. The final question asked what kind of support material was needed to help in implementation and communication activities.

By spring 2011, 21 countries had filled out the Communication Survey questionnaire. Most countries listed mainly national stakeholders (data holders and providers, administrators, planners, staff at ministries etc.) as those best able to help solve the problems, but also EU-level support and legislation were identified. In most countries the National Implementation Team had good contacts with the national stakeholders, who usually were aware of ECHIM and appreciated its work. However, there were also a few countries where the awareness and appreciation of ECHIM and the ECHI Indicators was not very good, and some where ECHIM was practically unknown. Some countries asked for supporting material in print, letters, brochures or leaflets etc. that could easily be "localised" to national settings. Promotional material was duly later produced by ECHIM (see Chapter 3).

5.3.2. Communication Plan

The Communication Survey was intended to provide ECHIM with an overview of the arrangement of communication in the participating countries, and to point out possible problems that the countries confront in their work. After completing the Communication Survey, countries were encouraged to draft a more detailed plan on communication activities. These plans were called Communication Plans. The National

Communication Plan, together with the National Implementation Plan, should present ideas and plans on how to overcome problems in the implementation.

The aim of the Communication Survey was to make countries see the need for conscious and systematic efforts to consider communications issues and aim at a communication strategy. In practice, communication means many things - discussing personally, arranging meetings and seminars, spreading information by means of leaflets, websites, press releases and press conferences, and writing letters, emails and articles etc. The means by which one will decide "to talk" will depend on to whom one needs to talk to: a small group of people, big audiences or a single key person.

The responses of the countries to the Communication Survey formed the basis of the document "Guidelines for National Communication Plans of Joint Action for ECHIM", drafted by the Helsinki secretariat together with the ECHIM Core Group. These guidelines were intended to help National Implementation Teams to raise issues that should be dealt with in the National Communication Plans and Implementation Plans. The document also set up some general guidelines for communication at EU level.

The Communication Plan should include at least the following components:

- The role and main objectives of communication in the implementation work and the key messages.
- The key target groups of one's messages. Most participating countries were able to define the key target groups when responding to the Communication Survey, i.e. spell out who are the persons and organisations whose support is essential in order to be able to successfully carry out the implementation work. Typically they comprise those responsible at different levels for health care, both in national and EU-level, although most countries listed mainly national stakeholders, administrators, planners and existing data providers
- Means of communication. The Communication Plan should also detail which
 means (web, material in print, the role of publicity and mass media, conferences,
 seminars, personal contacts, etc.) could be used to best be able to speak to the
 different key groups and to overcome the possible problems in communication.
 Take into account material and support that can be provided by ECHIM.
- An initial timetable, if possible, highlighting the key actions.
- Organisation of communication. The National Implementation Team is in charge
 of the communication in the country. It was recommended that in every NIT
 there should be at least one skilled communication officer (part-time). In case this
 was not possible, the NIT should seek for such support a person either in its own
 institution(s) or in the ECHIM Helsinki Secretariat.

Most countries did not find a separate communication plan to be necessary, they considered a chapter on communication in the implementation plan to suffice. Seven countries drafted a complete communication plan (Czech Republic, Estonia, Finland, Italy, Lithuania, Malta and Romania), while 13 countries nominated a communication officer.

5.3.3. Indicator Data Availability Sheet

All the "old" country and indicator specific documents compiled in the previous ECHIM project were provided to the members of the Joint Action for ECHIM at the start of the Joint Action, so nobody needed to start the implementation process from scratch, provided that their country had participated in the previous phase of ECHIM. However, since that time, the indicator metadata (definitions, calculation, preferred data type and source) had been revised during the Joint Action, so the analyses done were no longer completely up to date.

At the start of the Joint Action for ECHIM, the ECHI shortlist indicators were (conceptually) divided into 2 sets of indicators as described in the 2008 ECHIM Final Report.

- Section 1 ("implementation section") included indicators that can be implemented
 in the short or medium term. Typically, definitions were sufficiently clear, data
 were more or less readily and regularly available and reasonably comparable
 in international databases. However, in many cases, harmonisation can still be
 improved. These indicators ranged from "perfectly available" to indicators with
 "large data problems".
- Section 2 ("development section") included those indicator topics that were not yet ready for incorporation in international regular data collections due to considerable methodological and/or data availability problems, and thus were most likely not implementable even in medium term. Typically these were indicators with high policy relevance, but limited availability or poor indicator definition or poor crosscountry comparability.

The main objectives of the Indicator Data Availability Sheet were to help countries A) to assess the availability of national data for those indicators that are not available comparably and according to the ECHI definition in the most important international data sources and B) to identify the original national data sources for and assess the quality and comparability of those indicators readily available in international databases.

These two groups differ in what kinds of questions are posed and what actions are needed in implementing the indicators. The former group raises questions such as whether any appropriate national data exist currently, what is the quality and representativeness of the possible data, and how is the situation expected to change in the near to medium term. Whereas for the latter group of indicators, improvements in the data delivery process to the international organisations are a more important issue. On the other hand, issues like the status of the EHIS implementation and whether all the suggested dimensions (age-group, sex, socioeconomic status, region etc.) are available in the data source matters from the point of view of both. Inquiries were made about possible alternative national data sources as well as any already existing data sources or any forthcoming in the near or medium term future. As an example, for some indicators both survey and register based data exist.

A template for the Indicator Data Availability Sheet was prepared by the Helsinki secretariat together with the ECHIM Core Group. The Indicator Data Availability Sheet template gives the preferred data source (at least data source type) for each indicator, which is also and more elaborately documented in the ECHIM Documentation Sheets presented in the up-to-date versions in the ECHIM website www.echim.org.

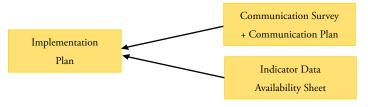
This data availability inventory needs to be done for all ECHI shortlist indicators, except that all indicators for which EHIS is the preferred data source can be lumped together in those countries that participated in the first round of EHIS from 2006–2010.

By the time of writing of this report, 23 countries had completed the Indicator Data Availability Sheet with a sufficient level of detail, which includes all ECHIM Core Group countries except for Greece and Sweden, plus about half of the other countries.

5.3.4. Implementation plan

The Implementation Plan is the tool by which all the actions described above were tied together into one cohesive action and document. In addition to preparing for and concretely planning the implementation actions, it was also necessary to describe, document, and to some extent, to evaluate the implementation process in each MS. The Implementation Plan should include the main points of all the other documents (Communication Survey, Communication Plan and Indicator Data Availability Sheet) prepared during the implementation process (see figure 1).

Figure 1. Relationship of the Implementation Plan, Communication Survey, Communication Plan and Indicator Data Availability Sheet.



The Implementation Plan should include a description of at least the following tasks and achievements:

- 1. Checking the current data sources. Here is a summary of the activities of the assessment that looked at the availability and quality of data for the ECHI shortlist indicators in one's country, and the data provided to national and/or international databases, as described in the Chapter "Indicator Data Availability Sheet" above.
- Check the result of this activity (availability, coverage and validity of data) with the ECHIM Secretariats.
- The resulting updated Data Availability Sheet illustrates the availability of each indicator (fully available / partly available / not available / will become available / available but from a non-preferred source).
- Concentrate next on the missing data sources and the sources that need improvement (i.e. not available / partly available data and indicators).
- Check relevant earlier national and international exercises in the field of health information systems as examples and for background information, e.g. the Dutch Dare to Compare -report¹⁴ and the Eurostat taskforce on diagnosis-specific morbidity statistics.¹⁵
- Follow and monitor also the progress made in the ECHI indicator development work (led by the RIVM secretariat), and when the definitions, calculations, and recommended data source types are finalised for a particular indicator, national and international data availability should of course be re-checked and re-evaluated.
- 2. Set up the National Implementation Team (NIT). This is maybe the most important task at the start of the implementation process, so sufficient consideration should be devoted to it. In most countries the NIT consists of a group of at least 3–6 national experts. Additional members should of course be involved when solving specific issues. The NIT members will only work part-time on implementation, as in most cases no extra funding can be allocated to it. It would be wise to have the national health information contact points for the international organisations of Eurostat, the WHO Regional Office for Europe and the OECD present in the NIT, or at least closely involved with the work of the NIT, in addition to the representatives of, for example, the national institutes of public health, statistics, etc., and ministries of health. Furthermore, the national

Harbers MM, Van der Wilk EA, Kramers PGN, Kuunders MMAP, Verschuuren M, Eliyahu H, Achterberg P. Dare to Compare! Benchmarking Dutch health with the European Community Health Indicators (ECHI). RIVM report number 270051011. Houten: Bohn.

¹⁵ circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/.

member of The Experts Group on Health Information ¹⁶ (EGHI) (formerly the Network of Competent Authorities and Health Information Committee) should also be involved in the work of the NIT. In the Communication Survey and the Communication Plan the most important persons and/or organisations and institutes with regard to successful implementation have already been identified. The NIT should have more or less regular meetings, depending of course on the situation. For specific issues, separate meetings should be organised involving NIT members and other national experts.

3a. Draft an initial general plan for the implementation of ECHI Indicators, with a provisional timetable.

- Set up a realistic goal for the implementation, taking into account the possible resource limitations at national and institute level. This may imply starting with a subset of indicators.
- Plan on how to implement indicators based on existing data sources, how to
 improve data sources and how to establish new ones. This exercise should be done
 from the current starting point of your country. Seek support from the ECHIM
 Secretariats.
- Establish clear lines of approval of data and authorisation of data publications (of data/indicators that are not readily and comparably available in the international databases or from EHIS), although no individual level data will ever need to be provided to the pilot central ECHIM database, or any other database.
- Note that modifying data sources or establishing new ones requires a lot of effort.
 Take into account the resources you have and the time needed.
- Gather a list of contact persons and resources needed to realise the implementation proper and draw a plan on how these persons are integrated into the process.
- Prepare a timetable with clearly defined milestones and deadlines which is in accordance with the general timetable of ECHIM at the EU level. Keep in contact with ECHIM (especially the Secretariat responsible for implementation in your country) and inform about your country-specific deadlines.
- Check the implementation plans (as well as other relevant documents) of other
 countries similar to your own country for inspiration and good practices. All
 implementation plans (and other country-specific documents) were available for
 the ECHIM members in the ECHIM extranet so as to enable national experts to
 learn from each other and to garner good ideas from their colleagues.

3b. Draft initial indicator-specific plans for implementation, with provisional timetables.

The Experts Group on Health Information (EGHI) is a consultative structure with representatives from all the Member States to support the overall implementation mechanisms for the health strategy with regard to health information.

ec.europa.eu/health/strategy/implementation/hic/.

The three main groups of indicators can be discerned within the ECHI shortlist:

1) indicators for which the preferred data source is one of the major international databases, 2) indicators for which EHIS is the preferred data source, and 3) the rest of the indicators (with suitable data sources to be explored at national level). National Implementation Plans should tackle at least the following type of basic questions:

For ECHI Indicators which are readily available and delivered to international organisations (WHO, OECD, Eurostat):

- Does your county deliver all data and generally on time? Or does your county differ
 on some major aspects, e.g. have fundamental problems in delivering some (type
 of) data on time?
- What are the possible improvements for your country in the near future? E.g.
 change in the use of the ICD-code, improved record linkage possibilities, improved
 data management and data flow, etc.

For indicators for which EHIS is the preferred data source:

- What is the current status of the EHIS implementation and what are the concrete national plans for EHIS Round 2?
- Are there other recent data available that are collected according to the EHIS methodology?
- What can be done to implement EHIS or improve the quality of EHIS-based data?

For the rest of the indicators:

- ECHI indicator definitions and other metadata are spelled out in the Documentation Sheets
- For which of these indicators data are already collected? (Regular, nationally representative, including all relevant age groups?)
- For which of these indicators are there no appropriate data currently available?
- Are there already (concrete) plans to collect such data in the future?
- What can be done to collect such data in your country / improve the quality of the data?
- 4. Communication Plan. Here the question is who are the key persons (and/or institutes) and how to best communicate with them. The National Implementation Team (NIT) should also take the lead on communication, if possible. A separate and more detailed national communication plan is to be drafted, here an outline of the plan is sufficient. In the Communication Plan proper it should be detailed how communication with key stakeholders (e.g. ministries, statistical offices, public health institutes) concerning ECHI Indicators and the national implementation plan will be realised in practice.

5. Plan on how to regularly update the plan and document the implementation process. It is important to keep track of what has been done and why it has been done, and what is still to be done. It is recommended to make a separate document on concrete implementation actions, which is updated regularly, after each step in the implementation process, making it easy to document the progress as it happens. Because things will not happen exactly as planned in the original implementation plan, plans have to be adapted along the way, e.g. when progress has been made in indicator definitions for those indicators in the development section.

Updated implementation plans should thus present the key points of all activities undertaken during the implementation process up to that point, and the end results of these activities, and the reasons why certain indicators cannot yet be implemented. And at the end of it, an outline the work still to be done should be presented.

By the time of writing of this report, 19 countries altogether have written and delivered their national Implementation Plans – all ECHIM Core Group countries except for Sweden, together with 6 other countries (Denmark, Latvia, Malta, Poland, Romania and Moldova; although some of these countries have provided quite cursory implementation plans). However there are among the other countries additional countries that have advanced in their implementation process quite substantially, even though, for some reason or another, an actual implementation plan has not been finalised (Austria, France, Norway), raising thus the total number of countries to 22.

5.4. Overview of the implementation process and timetables

The kick-off meeting of the Joint Action for ECHIM was held in February, 2009 in Vilnius, Lithuania. This was also the first meeting of the ECHIM Core Group. As described in Chapter 3, the ECHIM Core Group consisted of almost 40 members, members of the Central Secretariat in Helsinki (THL) and the other four Partner Secretariats at the national Public Health Institutes in Berlin (RKI), Rome (ISS), Bilthoven (RIVM) and Vilnius (HI). The other Core Group members were experts from Belgium, Czech Republic, Estonia, Greece, Ireland, Slovenia, Spain, Sweden, the United Kingdom, together with Eurostat, the OECD, the WHO and DG SANCO representatives.

It was agreed in the meeting that the implementation work will be started with the Core Group countries and thus they would "pilot" the suitability of the various documents in helping to start the implementation of ECHI Indicators and revise the documents and guidelines before the other-than-Core-Group countries become involved in the implementation. The following schedule was agreed for the first implementation activities and drafting of the documents:

National Implementation Plan: deadline September 2009
Communication Survey: deadline September 2009
National Communication Plan: deadline December 2009
Indicator Availability Sheet: deadline March 2010.

The second Core Group meeting was held in Ljubljana, Slovenia, in September, 2009. It was agreed that the revised guidelines and implementation documents are sufficient to start implementation on the second round countries too. On the first day, there was also a press briefing organised for the Slovenian national press to gain more visibility for ECHIM in Slovenia.

The first meeting of the Extended ECHIM Core Group was held in Luxembourg in March, 2010. As described in Chapter 3, the Extended ECHIM Core Group consisted of representatives from 36 EU Member States, EU Candidate Countries and EEA/EFTA countries, together with representatives from Eurostat, the WHO Regional Office for Europe and the OECD. This meeting was the official launch of the Joint Action for ECHIM in other than Core Group Countries, although by this meeting the countries had not yet received the official support letter from the European Commission to encourage them to participate in the Joint Action for ECHIM. This fact was brought up by many of the participants and it was feared that without the official letter, things would progress slowly in some countries.

It was agreed in the meeting that by June, 2010 all countries should have established their National Implementation Teams and have completed the Indicator Data Availability Sheets. And by the end of the summer, they also would have completed the Communication Survey questionnaire and drafted the first versions of their Implementation Plans and Communication Plans. However, in practice, progress was slower, and by the end of the year 2010, about half of the other than Core Group countries had still not completed most of the documents. The reason mentioned most frequently was that without the official letter from the EC, they cannot prioritise ECHIM matters in their work and thus ECHIM may become sidetracked in their country.

In all meetings of the Core Group and the Extended Core Group meetings, overviews of the present state of implementation were presented, as well as a few more detailed country examples of the progress of the implementation. Examples of implementation of ECHI indicators into national data presentations systems were presented in a few meetings also. Documents drafted by the other-than-Core-Group Countries were commented on and progress in the implementation followed by the Partner Secretariats.

Short country reports or updates on the progress of the implementation in the participating countries were collected twice a year, before the meetings of ECHIM Core

Group and the Extended Core Group. Both of these bodies had one meeting per year.

The last meeting of the ECHIM Core Group was in Rome, Italy, in September, 2011. In this meeting, the emphasis changed towards the possible future of the indicator work following from the work of the Joint Action for ECHIM. Discussions also covered the status of the implementation of the ECHI Indicators in Europe and what more can be done before the end of the Joint Action for ECHIM, the indicators and shortlist, the Pilot Data Collection, and the content of the Final Report of the Joint Action for ECHIM. These same topics were the main themes also of the last meeting of the ECHIM Extended Core Group held in March, 2012 in Luxembourg.

All agendas and minutes as well as the presentations held and the background material delivered to the Core Group and the Extended Core Group meetings are available via the ECHIM website (www.echim.org \rightarrow Documents \rightarrow Meeting materials).

The next Chapter will describe how the implementation of the ECHI Indicators progressed in practice, and how well countries fared in the national implementation and in including the ECHI Indicators into national public health reporting.

5.5. Lessons learned, conclusions and recommendations

Having a well-functioning National Implementation Team is very important. It is essential that the national health information contact points for the international organisations of Eurostat, the WHO Regional Office for Europe and the OECD are closely involved with the work of the NIT, as they are among the ones who have a first-hand knowledge of the data delivered to the international databases. Even though there is no official status attached to the NIT, they should be created as an important step towards improved co-operation at national level, by bringing together people from various organisations and by having regular contacts between the NIT members (meetings, emails, and other means of communication).

Realistic goals and timetables should be set for the implementation process. One should first concentrate on those indicators that seem most amenable to implementation to show added value. When one can show that the implementation process is ongoing, it is easier to get others involved in the work.

Policy level support by the Commission is a prerequisite for success to ensure that both European and national importance of the work toward common indicators is prioritised.

Funding may be a problem, as the Joint Action for ECHIM did not have any funds to offer for the national implementation work. National implementation work must thus be financed by national means and resources. Thus, it is essential to seek and obtain national political approval, acceptance and recognition for the ECHI Indicators. The higher the level of acceptance and recognition, the stronger the commitment to ECHI Indicators, the better is the likely outcome.

According to the results of the Communication Survey, the NITs often have good contacts with the important stakeholders and decision-makers, who usually are aware of ECHIM and appreciate its work. However, this has not been sufficient to achieve the necessary level of support for ECHIM. And even if the ECHIM work is accepted and supported, the support usually is more of moral support, and not in a form that would yield more resources. Additional ways to strengthen the relationship with key health administrators and policymakers should be found, e.g. a closer collaboration within NIT, more frequent reporting on the progress made, valid and convincing arguments and the use of publicity and media.

In order to obtain support (political, professional, administrative, and financial) for the implementation work in one's country, one has to formulate, in advance, some key points to support the importance and added value of European wide health indicators. In addition to specific national arguments, more general arguments could be used too. The latter ones could include arguments such as:

- Public health information must deal with all relevant aspects of health status, determinants of health and health care.
- European comparisons provide a better overview on the status of public health at national level.
- Comparable health data are a solid basis for national health policy.
- The means and methods of health surveys and the content and comparability of health information overall are being improved, stabilised and harmonised through European co-operation.
- National health data must closely resemble those from other EU countries.
- ECHI Indicators create preconditions for a balanced overview of health in Europe.
- Examples of how indicators have changed the efficiency of public health work in Europe and in some Member States can be shown.

Communication conducted by ECHIM is directed both at the national and the European Union level. These parallel lines of communication are closely interlinked: improving the knowledge of the ECHI Indicators and their implementation in Member States is crucial to the broader goals of communication at the EU level. Communication

also has an influence on the support given by the European Commission to ECHIM. In other words, the success of the Joint Action for ECHIM is entirely dependent on the progress of the project in Member States.

A network of communication officers in the National Implementation Teams and in DG SANCO's Health Information Unit was planned during the Joint Action. This network was meant to exchange experiences in the implementation work and develop together the best communication practices from which all countries could benefit. It was planned that the network would keep in touch at least through regular email. Telephone conferences would be held if needed, as well as meetings in connection with the ECHIM Core Group and Extended Core Group meetings on topical issues. In reality, there was not enough interest or need in the participating countries at this phase of the implementation that a functioning network could be maintained.

6. IMPLEMENTING THE ECHI INDICATORS IN PRACTICE

Ari-Pekka Sihvonen, Remigijus Prochorskas, Rita Gaidelyte, Jiří Holub, Šárka Danková, Pedro Arias Bohigas, Marieke Verschuuren

6.1. Introduction

This chapter is about the practical work done and achievements in obtaining data for ECHI Indicators or creating conditions for making these data available in Europe. The methodological work on developing the ECHI shortlist indicator definitions and related aspects are described in Chapter 4 of this report and in Report II.

The major features of the implementation process are explained in the previous Chapter 5 of this report. The documents recommended by ECHIM to be prepared step by step for the implementation work have been presented also in that Chapter.

The components of the implementation work can be divided to those that can be done centrally and those that have to be done by the countries themselves. Thus the content of Chapter 6 is divided into two parts: 1) work done centrally by ECHIM teams (e.g. locating and harmonising data with preferable international sources, Pilot Data Collection, data available via the HEIDI Data Tool) and 2) work done by countries in improving their ECHI data availability, quality and the use of ECHI Indicators for health monitoring and health policy support purposes.

On the other hand, there are at least two ways countries can work on the implementation of the ECHI Indicators, i.e. 1) by working on the national data collection, and 2) organising national reporting along the ECHI Indicators. They can also do both. Thus, the implementation work can be divided also into data gathering and health reporting (such as data presentations, public health reports, and incorporation of ECHI into the health information systems). This general division applies to EU-level actions too.

6.2. Implementation work at the EU/ECHIM level

6.2.1. Use of international data sources

To avoid extra work and duplicate data gathering, the available international data sources and data collection exercises have been given preference whenever their indicator definitions and calculations match those of the corresponding ECHI Indicator and where the data comparability is acceptable. Thus the most important sources of data

for the ECHI Indicators are the major international databases of Eurostat, the WHO Regional Office for Europe and the OECD, together with some problem-specific international databases (like those of The European Centre of Disease Prevention and Control (ECDC), and The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

Existing international databases are the recommended data source for over half of the ECHI shortlist indicators. Of those, Eurostat, WHO Health for All and OECD Health Data databases are the recommended data source for 35 of the 88 ECHI shortlist indicators, while other international databases are the recommended data source for 13 indicators. Furthermore, the Morbidity Data project at Eurostat¹⁷ may produce data that become the source of data for three of the register-based versions of those indicators for which both survey- and register-based versions are available (see Table 1 in Chapter 4.2, for details).

Increasingly from the 1990s, the international organisations have coordinated their data collection. Currently all mortality data are shared with the organisations while statistics on health expenditure and other health care data are jointly collected with a common methodology and joint data collection instruments.

The ECHI shortlist is divided into an implementation, work-in-progress and a development section (67, 14 and 13 indicators, respectively). For the indicators in the implementation section a consensus has been reached on the definition and data source, and data availability is good or at least satisfactory. For these indicators the Documentation Sheets (i.e. indicator metadata) have been worked out in detail. Data sources for most of the indicators in the implementation section are the above-mentioned international databases or national health interview surveys (in the future EHIS). The indicators in the development section are considered not ready for implementation at the moment, as more developmental work is still needed on definitions and/or data collections. Indicators in the work-in-progress section are somewhere between these two categories. They are technically nearly ready for incorporation in regular international data collections, but there is yet no concrete plan for this. Development of the indicator definitions for the shortlist indicators is described in Chapter 4 of this report and it is documented in more detail in Report II. The latest versions of the Documentation Sheets can also be found at www.echim.org.

¹⁷ circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/.

6.2.2. Use of European Health Interview Survey data

Since not all ECHI Indicators can be found in the international databases the efforts of Eurostat to develop the European Health Interview Survey (EHIS) are important. Thus, interview data are expected to become a powerful data source for some ECHI Indicators. The EHIS is a standard created as a joint European venture in Eurostat. The main goal of EHIS is to obtain survey-based indicator data that are internationally comparable within Europe. For this reason EHIS is the preferred data source for many of the health status and health determinant indicators of the ECHI shortlist.

The EHIS can, in principle, provide comparable data for over 20 of the ECHI shortlist indicators (see Table 1 in Chapter 4.2. for details).

Thus by having conducted the EHIS, about fourth quarter of the ECHI Indicators can be seen to be or are expected to be implemented. The first round of EHIS has been conducted in 20 European countries between 2006 and 2009. These include 17 EU Member States; 6 "old" Member States (EU-15) and 11 "new" (EU-27). Also one Candidate Country (Turkey) and two non-EU countries (Norway and Switzerland) participated in the first round. Countries that did not participate in the first round of EHIS include Denmark, Finland, Sweden, the United Kingdom and Iceland.

In most countries all the recommended EHIS modules were implemented, but five countries (Austria, Belgium, Germany, Estonia, France and Italy) included only selected parts. EHIS was a part of another national survey in France and Germany, whilst in other countries it was carried out as a standalone survey. The two countries which first conducted EHIS, Austria and Estonia, used an older and shorter EHIS questionnaire. Practically all countries included also questions not covered by EHIS, but which were of national importance.18

Although in most countries all the recommended EHIS modules were included in the national surveys, a closer examination of the national questionnaires, however, revealed that only 10 out of 20 countries had included all questions that were part of the survey. That may be partly explained by the fact that some countries had modified some questions to such a degree that they were not comparable to the joint EHIS questions. Another interesting observation was that eight out of the 10 countries in which the questions were fully implemented joined EU in 2004/2007. On the other hand, the worst off four countries were all either "old" EU Member States or non-EU

Dorothy Gauci. Synthesis report on use of EHIS quality assessment criteria. Final Report, March 2011. <u>circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/healthsinterviewssurvey/</u> ehis wave 1/.

countries. An apparent reason for this is the long tradition of surveys in Western and Central European countries, in which compromises had to be made between European comparability and a possibility to follow national trends.19

The data for EHIS-based indicators are available by educational level and socioeconomic status and to some extent also by region, providing that the sample size is big enough. The current ECHI Documentation Sheets have not been updated according to the second round of EHIS, since the implementation regulation has not been approved yet (June 2012). This has to be done as soon as the final version of the EHIS questionnaire is available.

During the past years, Eurostat and ECHIM have collaborated closely on the revisions of the round 2 questionnaire, striving for correspondence between the EHIS questions and the ECHI indicator definitions.

6.2.3. Use of European Health Examination Survey data

The European Health Examination Survey (EHES) is an initiative to set up a system of standardised, representative health examination surveys (HES) of the adult population of the European countries. Currently health examination surveys are the recommended data type for none of the ECHI Indicators, largely due to the unavailability of such data. At present, EHIS is stated as being an intermediate data source for two indicators (42. Body mass index and 43. Blood pressure), although interview data are not the best source for such information.

When European-wide health examination survey data become available along with the implementation of EHES, these two indicators should be based on EHES data. Prevalence of diabetes in the population (#21) is an additional candidate indicator to be derived from health examination survey data. In addition, it is likely that with increased data availability, more indicators based on the health examination survey will be added to the shortlist, such as the serum cholesterol (and other lipids) level.

Twelve countries participated in the EHES pilot: Czech Republic, Finland, Germany, Greece, Italy, Malta, Netherlands, Norway, Poland, Portugal, Slovak Republic and the UK/England (see Table 3). The fieldwork phase of the pilot surveys took place in July 2010–May 2011. The final results of the EHES Pilot Project will be published by the end of June 2012 (www.ehes.info).

Antti Tuomi-Nikula, Sanna Ahonen, Päivikki Koponen. Comparison of EHIS source questions with national survey questions. Final report, June 2011. methodologiessandsdatasc/healthsinterviewssurvey/ehis_wave_1/.

All 12 pilot countries have evaluated the feasibility of conducting a standardised national HES in their country. In countries with long traditions of national HESs (Finland, Germany, Italy, Netherlands and the UK/England), decisions between maintaining national trends or international comparison have to be made. Furthermore, in several countries with an established tradition, the contents of the examination survey are much more comprehensive than the EHES protocol. For countries without previous national HESs or long traditions of them, it is easier to take up the EHES recommendations.

Nine of the pilot countries as well as Luxembourg and France have concrete plans to conduct nationally representative full-size HESs within next the next few years. In addition, Poland, Portugal and Norway have plans for the national HES in the next few years, although their funding is still open. The general support for EHES is, however, unclear; no funding from the Health Programme can be foreseen and alternative funding sources have to be found.

During the past years, ECHIM and EHES have collaborated closely both at the national and international levels. In many countries, the representatives of ECHIM and EHES are from the same organisations.

6.2.4. ECHIM Pilot Data Collection

The major aim of the Pilot Data Collection was to obtain comparable data for those ECHI shortlist indicators that were at the time not available or not comparable in international databases. At the same time the pilot collection can be seen as an attempt to evaluate both the ability and commitment of Joint Action countries to provide indicators in a way that conforms to ECHI to allow for the needed comparability. This approach can be seen as a "ground test" for the real implementation process and it can pinpoint some of the obstacles and data problems at national level. Ultimately, the pilot collection of ECHI Indicators from Member States paved the way for future data collections with regard to the data flow towards a central database and the data dissemination tool. The main results of this exercise are summarised in Chapter 7 of this report, and in greater detail in Report III.

The indicators chosen for this venture were the following 20 ECHI shortlist indicators from the implementation section:

- 15. Smoking-related deaths
- 16. Alcohol-related deaths
- 21. A/B Diabetes
- 23. A/B Depression
- 24. Acute myocardial infarction (AMI)
- 25. Stroke

- 26. A/B Asthma
- 27. A/B Chronic obstructive pulmonary disease (COPD)
- 29. A/B Injuries: home/leisure/school
- 30. A/B Injuries: road traffic
- 42. Body mass index (BMI)
- 43. Blood pressure
- 49. Consumption of fruit
- 50. Consumption of vegetables
- 57. Influenza vaccination rate in elderly
- 58. Breast cancer screening
- 59. Cervical cancer screening
- 60. Colon cancer screening
- 71. A/B General practitioner (GP) utilisation
- 72. A/B Selected outpatient visits

In the list, "A" denotes indicators for which data are to be derived from (national) health interview surveys (EHIS or national HIS) and "B" indicators from national registers, statistical systems or ad hoc data collections. For the eight indicators marked with A/B both health interview and register-based data were collected separately.

Those Joint Action countries that did not implement EHIS fully or not at all were the main targets of the ECHIM pilot data collection, which took place between July 2010 and April 2011. In addition to this pilot data collection at national level, calculations of EHIS data by using ECHI methods were received via Eurostat for those countries which delivered the EHIS microdata sets to Eurostat. At least some national data were eventually received from altogether 25 countries (see Table 3), but some countries provided only some data, partly with missing indicators and/or breakdowns and even with some dubious values. Furthermore, conceptual and methodological differences among national HIS data sometimes prevented computation according to ECHI methodology. For more details of the Pilot Data Collection and indicator-specific overviews, please see Annex 1 of Report III.

Further, prevalence data for tobacco smoking and alcohol consumption were collected for computation of ECHI Indicators #15 (Smoking-related deaths) and 16 (Alcohol-related deaths). National HIS data were received from several countries. Unfortunately, the alcohol module of the EHIS proved to yield insufficient data for computation of the alcohol-related deaths indicator, and there were too many uncertainties on former and never smokers to be able to calculate the indicator on tobacco-related deaths.

6.2.5. The role of the HEIDI Data Tool

The central position of the ECHI/ECHIM work has been appreciated by the Commission right from the start. The European Commission has been using the ECHI shortlist indicators in their website and other products over the past years, starting in 2006 with the presentation of data for many ECHI Indicators in the website of DG SANCO. In 2009, a new interactive data tool developed by DG SANCO replaced the original 2006 data presentation tool. This tool was developed especially for displaying indicator data, both ECHI Indicators and other policy-relevant European indicator sets. The data tool is linked to the recently launched public health wiki HEIDI (Health in Europe: Information and Data Interface). The HEIDI Wiki is designed to be the comprehensive distribution system on public health information and knowledge in the EU. Technically it is to be maintained by the European Commission, and selected public health experts in Europe are expected to write and update the contents of the wiki. For the time being, the statistical data in the HEIDI system will be taken directly from Eurostat and other international databases.

The development of a sustainable IT-solution for the presentation of the ECHI Indicators was originally one of the objectives of the Joint Action for ECHIM. With the emergence of the HEIDI Data Tool, ECHIM and DG SANCO jointly decided that data for ECHI Indicators should be presented using this tool. More about HEIDI and the collaboration between DG SANCO and ECHIM are described in Chapter 7 of this report. The full version of HEIDI was officially launched in Brussels on 3 May 2012 at the High Level Conference on EU Health Programmes.

In May 2012, the HEIDI Data Tool included data for about half of the ECHI shortlist indicators, ²¹ mainly derived from Eurostat data. This tool currently allows presenting the selected indicator with different layouts: line chart, bar chart, map or table. Time trends are also available. Some indicators can be stratified by gender and age. When available, breakdowns by socioeconomic level or region are provided.

A sustainable system on the automated integration of the ECHI Indicators which are already available in the major international databases – such as the WHO Health for All, OECD Health Data and Eurostat Databases – has been developed in the HEIDI Data Tool. It is planned to submit the Pilot Data Collection indicator data to DG SANCO in order that it can be incorporated into the HEIDI Data Tool.

Website of DG SANCO, HEIDI Wiki. https://webgate.ec.europa.eu/sanco/heidi/index.php/Main_Page.

Website of DG SANCO, ECHI Indicators. ec.europa.eu/health/indicators/echi/index_en.htm.

The ECHI Indicators are linked to the relevant presentation of different public health issues in the HEIDI Wiki. This will make the use of statistical data easier for the users, since the interpretation and current public health knowledge are interlinked.

DG SANCO has stated that the ECHI shortlist indicators are a reference point in EU health monitoring and the basis for EU health reports. One concrete example of a European health report in which ECHI shortlist indicators were used is "Health at a Glance: Europe 2010", which was produced by the OECD and funded by the European Commission.²² The Commission and OECD will complete an update of this report in 2012.

Other developments adding to the sustainability of ECHI Indicators is the Eurostat regulation on statistics on public health and health and safety at work (1338/2008), which refers to the ECHI shortlist. The data collections at EU level by relevant institutions such as Eurostat, ECDC, and EMCDDA are the key elements to building up the data flow from existing data sources to a central database.

6.2.6. Summary of achievements and prospects

A summary of the countries' participation in the data collections of the EHIS, EHES and ECHIM Pilot Data Collection is presented in Table 3. Five countries (Czech Republic, Germany, Italy, Malta and Poland) have participated in all of these three data collections. Most countries participated in the EHIS round I and ECHIM Pilot Data Collection and only a few countries did not take part in any of these data collections. Fewer countries participated in the EHES pilot than in any of the other data collections. Croatia and Luxembourg expect to carry out a full EHES in the near future).

One of the serious shortcomings of data in international databases is that there is little data by educational level or by socioeconomic status, although Eurostat has recently been developing e.g. methods in computing mortality and life expectancy by socioeconomic status.²³ In addition, there are very limited amounts of data by area or region (NUTS2). However, the situation is understandable since international data collections never intended to collect data by socioeconomic status as these remain unavailable in most countries.

Health at a Glance: Europe 2010. OECD, European Union. Published by OECD Publishing, 2010. ec.europa.eu/health/reports/european/health_glance_2010_en.htm.

 $^{{\}color{blue} 23 \quad appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_mlexpecedu\&lang=en.} \\$

Table 3. Overview of the participation in the EHIS round 1, EHES Pilot Study and ECHIM Pilot Data collection.

	EHIS round 1	EHES pilot /	ECHIM Pilot Data Collection
Albania			
Austria			
Belgium			
Bulgaria			
Croatia			
Cyprus			
Czech Republic			
Denmark			
Estonia			
Finland			
France			
Germany			
Greece			
Hungary			
Iceland			
Ireland			
Italy			
Kosovo			
Latvia			
Lithuania			
Luxembourg			
Malta			
Moldova			
Netherlands			
Norway			
Poland			
Portugal			
Romania			
Serbia			
Slovakia			
Slovenia			
Spain			
Sweden			
Switzerland			
Turkey			
United Kingdom			

Another drawback is that some countries participating in the Joint Action for ECHIM do not provide data comprehensively to all of the international databases. In addition, for example, Cyprus, Latvia, Lithuania, Malta and Romania, as well as for Croatia, Serbia, Macedonia, and Moldova are not OECD Member States and therefore their data are not included in the OECD Health Data.

Currently the planning for EHIS round 2 to be carried out in 2014 is ongoing. An implementing regulation for round 2 has been proposed. It would make the data collection obligatory for all Member States (unlike in the first round of EHIS). Thus, the next EHIS round is expected to provide data also for those countries that did not participate previously. It must be noted that from the point of view of ECHI Indicators, repetition of the EHIS regularly (every five years, as stated in the regulation on public health statistics) remains essential.

In addition, in preparation for EHIS round 2, the EHIS questionnaire is being revised. This may have consequences for the indicator definitions and calculations as described in the Documentation Sheets. At the time of the drafting of the ECHIM Final Report, the revision process was not yet finalised. This highlights the importance of keeping the ECHI Indicators and their metadata updated also after the Joint Action for ECHIM ends.

The EHES Pilot Project has demonstrated that health examination surveys adhering to commonly agreed standards can be implemented in countries with different cultural settings and economic positions. The funding for the continued EHES activities is currently open and the future of EHES is in the hands of the Member States. In addition to those countries already carrying out national HESs, other countries must also recognise their importance at the national level. Health examinations have a lot of added value for health monitoring, as has been shown by the experiences e.g. in Germany, Finland and the UK. It seems that the establishment of a European HES needs to go via widespread national adoption, followed by promotion at the level of the European Commission.

An essential part of a sustainable ECHI system is that efforts to improve and harmonise the collection of health data continues at European level. All EU Member States should continue the national implementation of ECHI Indicators in their own health information systems. This is the only way to improve the availability of core health indicators and their comparability across countries. Such a development can only be kept up by joint European efforts.

The HEIDI Data Tool should be further developed to ensure that the correct data sources and definitions are always used, and the data are systematically validated. The ECHI

Indicators should be easy to find in the data tool, and all metadata should be directly linked to it. Further efforts are needed to ensure its user-friendliness and flexibility for different user groups.

The requirements for an efficient and good quality data presentation system are that the end product is quick, reliable and user-friendly. The data display software needs to be quick and easy to use. The data will need to be as complete as possible, reliable and continuously updated. The provision of time series would help to promote the use of the indicators for policy and planning purposes, since it is often necessary to monitor trends and to set targets. The full potential of a health monitoring system is only realised by the provision, analysis and interpretation of up-to-date cross-sectional comparable data enabling comparisons between countries and population groups, and relevant time trends concerning health and its determinants.

The HEIDI Data Tool, in its current state, meets most of these requirements, but some shortcomings have been observed:

- It is currently not possible to hyperlink to the individual indicator presentations themselves, one can only link to the front page.
- The indicator metadata are not yet fully incorporated in a standardised form (i.e. ECHI Indicator "Documentation Sheets") into the ECHI section of HEIDI. Also the meta information about the comparability between countries and over time of the data underlying the ECHI Indicators (i.e. "ECHI remarks on comparability") has not yet been fully incorporated.
- The underlying data are not always those which are recommended and with the recommended definitions as specified in the ECHI Indicator Documentation Sheets. The ECHI Indicators should be the major instrument used in EU-level health reporting. The prerequisites for their use in health reporting include assuring that all indicators and in particular ECHI information in various Commission products has been obtained according to the ECHI guidelines and that the data are correct. Therefore, systematic data validation is one of the key elements of the future ECHI system.

6.3. Implementation work in countries

In this Chapter the viewpoint shifts from international data sources and data collections to the implementation activities carried out by the countries participating in the Joint Action. It is here described and reviewed how well the countries have fared in their efforts in national data collection and in organising national reporting along the ECHI Indicators (like data presentations, public health reports, and incorporation of ECHI into the health information systems).

It is first explained what is meant by incorporating the ECHI Indicators into the national health information systems. Then a closer look is taken at four countries with a successful implementation process: Lithuania, Czech Republic, Spain and Netherlands. An overview of the actual implementation work done—progress made, challenges encountered, and lessons learned—is presented for each of these countries. At the end, an overview of the implementation of the ECHI Indicators in Europe is presented. The short "Country Specific Overviews" of the participating countries are presented in Annex 6.

6.3.1. Incorporation of ECHI into the national health information systems

Generally, the success and future of ECHI depends on two basic conditions: 1) the ability of a certain central EU institution to organise and implement the collection and use of ECHI data, and 2) the ability of countries to provide required data in a timely fashion and of sufficient quality (directly or via other international agencies). The building of the countries' capacity to produce ECHI data is a much more difficult and long-term process that requires the integration of ECHI into national health information systems.

There are several reasons why the incorporation of ECHI Indicators into national health information systems is the only possible way to ensure continuous development and improvements in ECHI data availability, quality and comparability in countries.

First, the majority of ECHI Indicators are conventional health statistics, and they are already included in various health indicator lists used by countries.

Second, being a part of the routine health data collection, processing and dissemination system in countries, ECHI would be "automatically" updated at regular intervals without any special ECHI-focussed efforts. ECHI would also benefit from a country's efforts to improve national health information systems in general. For example, it is hard to expect that any country would provide resources for HIS/HES solely in order to collect data for ECHI, or that efforts to improve the coding quality of causes of death would be limited only to causes used for ECHI Indicators. On the other hand, the special efforts (like in Joint Action for ECHIM) to produce missing ECHI data from new sources may trigger new developments benefitting also other, non-ECHI indicators in national lists. An example could be the starting of health insurance data usage for estimating morbidity indicators in some countries.

Third, the use of the ECHI frame in national health reports would facilitate the compatibility with EU-level reporting and would keep the need for improvements in inter-country ECHI data comparability sufficiently high on the agenda.

In practice, the integration of ECHI into national health information systems may be done in various ways, depending on how these systems are organised in the countries. There are several levels of ECHI integration, starting from the background level, i.e. the primary data sources, data collection, processing and dissemination, as part of more comprehensive national sets of health statistics or indicators, and ending with, e.g. national health reports structured according to the ECHI shortlist.

It is important to emphasise that the ECHI Indicators are also very useful for national health monitoring and health reporting purposes, complementing the core national indicators. National time series are important, but internationally comparable time series are likely to become equally important. ECHI Indicators can also provide inspiration for country discussions on data availability, reliability and comparability as well as give new ideas of which indicators could be used in health monitoring and reporting.

The possibility to compare national data with other Member States or the EU average adds to the attractiveness of implementation as far as the political actors are concerned. First of all, the comparisons may encourage efforts to make some indicators and data available in cases where country data are lacking but are available in other countries. A second motivation might be to see whether one's own country is doing better or worse than other countries. Thus, one way to promote the ECHI shortlist is to try hard to get these indicators included in different national public health strategies as tools that can be used in monitoring policy measures and comparing the results with other EU countries that have introduced similar or different policy measures.

6.3.2. Examples of implementation in selected European countries

The placement of the ECHI implementation within the general national health information system will in most cases strengthen the implementation activities in the country. The four country examples that are presented next deal with countries where ECHI Indicators have been successfully integrated into the national indicator system. After these more detailed country examples, a simple overview of the implementation of the ECHI Indicators throughout Europe is presented.

The first two cases, Lithuania and Czech Republic, are examples of the procedure of how the ECHI Indicators were successfully included in the national indicator systems, and especially into the national health indicator databases (NHIDB). The incorporation of ECHI Indicators into the NHIDB will ensure the regular updating of ECHI Indicators (i.e. being updated at the same time and by the same procedures as the other indicators in the database) and will also make the data on ECHI Indicators readily available for reporting and other purposes. In both countries one of the main purposes of the NHIDB is to support health monitoring and reporting, particularly at the sub-national

level. Both countries have been using the WHO Data Presentation System software (originally a Lithuanian-produced software prepared in collaboration with the WHO) since 1990s, which provides a user-friendly access to the database and offers multiple ways of presenting the data.

Spain is an example of the procedure to implement ECHI Indicators in the complex environment of a country with a highly decentralised political and administrative structure. The situation and challenges faced in Spain are quite different than in countries with a centralised administrative structure. Spain is a country with 17 autonomous regions, thus nationwide systems and harmonised indicators mean negotiations at several levels and with many institutions. Using the ECHI/ECHIM framework has been instrumental in helping to reach consensus on key national health indicators set among the different stakeholders of the Spanish national health information system.

Netherlands serves as an example of a country that is very advanced in the implementation of the ECHI Indicators. The report "Dare to Compare!", ²⁴ a description of public health in Netherlands based on international comparisons using the ECHI shortlist indicators, was published already in 2008, before the start of the Joint Action for ECHIM. The implementation process during the Joint Action comprised a detailed inventory of Dutch health data availability and data quality, fine tuning of the existing data collections and planning the national implementation process after the ending of the Joint Action for ECHIM.

There are also other countries that have progressed well in the implementation of the ECHI Indicators (e.g. Austria, Germany, Greece and Italy), but detailed country examples cannot be presented here by every country. A general overview of the implementation status of the participating countries is presented in Chapter 6.3.3. and more detailed country-specific overviews in Annex 6.

6.3.2.1. Lithuania

The Health Information Centre (HIC - former Lithuanian Health Information Centre) of the Institute of Hygiene was the leading institute coordinating the Joint Action for ECHIM implementation in Lithuania. Following the general ECHIM implementation guidelines, the National Implementation Team has been set up and the first draft of the national ECHIM implementation plan prepared at the beginning of the project. The plan was later updated in 2010. It was thought to be important to place the ECHIM implementation within the context of the general national health information system,

²⁴ Harbers MM, van der Wilk EA, Kramers PGN, Kuunders MMAP, Verschuuren M, Eliyahu H, Achterberg PW. Dare to Compare! Benchmarking Dutch health with the European Community Health Indicators (ECHI). RIVM report number 270051011. Houten: Bohn Stafleu Van Loghum, 2008. www.rivm.nl/bibliotheek/rapporten/270051011.pdf.

strengthening activities in the country. The main focus of the ECHIM implementation plan was the integration of ECHI into the national health indicator database (NHIDB). This would ensure the regular updating of ECHI Indicators and would make the data readily available for reporting to the central EU-level database. The NHIDB has been regularly updated and developed by HIC for the last two decades. The main purpose of the database is to support health monitoring and reporting in Lithuania, particularly at the sub-national level. It provides user-friendly access to a wide range of health statistics at municipality, district, city, county and national levels in Lithuania. It is regularly used by a wide range of actors across the country.

The general aims of the implementation of ECHI Indicators in Lithuania were:

- To improve health data availability and quality with a focus on ECHI by developing new or improving existing data sources, particularly by better utilisation of administrative records.
- To encourage and facilitate the use of health indicators for health monitoring and decision-making at national and local levels by introducing the international ECHI framework and including the available ECHI Indicators in the national health indicator database.

The specific objectives were:

- To revise the list of indicators and definitions applied in the NHIDB in order to harmonise them with ECHIM recommendations. To establish "ECHI user windows" in the database by tagging available ECHI Indicators.
- To develop procedures for generating statistical data for ECHI and other indicators from the national health insurance database.
- To test the record linkage possibilities between the health insurance database and the mortality register.
- To produce an updated version of the NHIDB with integrated ECHI Indicators.
- To test the practicalities of (future) regular reporting of ECHI-related data to the central EU-level database by participating in the ECHIM Pilot Data Collection.
- To increase the awareness about ECHIM among national health administration and key health data providers.

The National Implementation Team included experts from the Institute of Hygiene, Statistics Lithuania, Lithuanian University of Health Sciences and the Ministry of Health. An extended NIT meeting (about 20 participants representing various stakeholders) took place in March 2011. Informal working meetings and communication between the core NIT members took place regularly.

The integration of ECHI into NHIDB also included the development and testing of new methods for the calculation of morbidity indicators using data from the Compulsory Health Insurance Fund database SVEIDRA. The entire list of indicators in the NHIDB has been modified and updated. Over two hundred ECHI-related operational indicators were added or identified among existing indicators, resulting in about 2500 indicators in total, taking into account aggregations by age and sex. Mostly register/administrative record-based mortality, morbidity, health resources and hospital-discharge related ECHI Indicators were added. The ECHI subset in the NHIDB is identified in three different ways: 1) the ECHI subset is listed in the "Help" text of the database; 2) ECHI Indicators are tagged in the main list of indicators; 3) groups of ECHI Indicators are saved as "user windows" that can be quickly loaded by users if needed.

The main data sources used for calculation of ECHI and other indicators:

- 1. Compulsory Health Insurance Fund database was the main data source for morbidity indicators, i.e. the prevalence and incidence of specific diseases, hospital discharges, out-patient visits and related indicators. The database covers over 99% of hospital admissions and about 90% of out-patient visits in the country. Several slightly different versions of definitions and calculation methods for morbidity indicators were introduced in order to preserve previously used definitions and trends and to satisfy the new ECHI requirements. This was mostly related to whether to count subjects or disease cases. In the case of acute myocardial infarction and stroke, an attempt was made to link hospital discharge and mortality register data in order to identify lethal cases which were present in the mortality register but missing in the health insurance database. As it was still not possible to use personal ID numbers for the record linkage, the birth and death dates were used instead, producing rather good results.
- 2. The national mortality register was the source for all mortality related indicators in NHIDB. A separate mortality indicator database²⁵ with an extended list of indicators by COD65 causes was also developed as a supplement to NHIDB (available in Lithuanian only).
- 3. Disease-specific registers (sexually transmitted infections, AIDS, tuberculosis, cancer, mental disorders) were used for disease-specific morbidity indicators in addition to the above health insurance database.
- 4. Annual statistical reporting from health establishments. These reports are collected by HIC and used for calculation of health resources and related indicators.
- 5. Sickness absence data from the Social Insurance Fund (for relevant sickness absence related indicators).

The offline version of the database. lsmuni.lt/lt/biblioteka/informacijos-istekliai/statistines-duomenu-bazes/.

6. Statistics Lithuania database (for population, live births and some other demographic/socioeconomic indicators).

Due to limited availability of HIS/HES data in Lithuania, no survey-based ECHI Indicators were included in the NHIDB. The NHIDB²⁶ is regularly (annually) updated.

Communication and other Joint Action for ECHIM activities:

In the beginning of 2010 a briefing note about the ECHIM project was placed on the websites of a number of national news agencies.

The ECHIM leaflet, the ECHI shortlist and the Documentation Sheets have been translated into the Lithuanian language and placed on the Health Information Centre website²⁷. The explicit reference to ECHI in the NHIDB per se also has a strong promotional effect among users of the database. Data availability sheet and the data for the first ECHI pilot data collection have been prepared and submitted for central processing.

In general, the Joint Action for ECHIM was very useful, as it stimulated further developments in the national health indicator database, improvements in international comparability and the development of innovative ways for estimating morbidity and other health indicators from administrative records.

Main problems and lessons learned:

Among the main problems that could be mentioned are the lack of HIS/HES data in Lithuania for survey-based ECHI Indicators, a compartmentalisation of health data sources and legal obstacles for personal ID-based record linkage, and insufficient financial and human resources in health information field.

One of the difficulties in getting support specifically for ECHIM implementation in the country was the lack of understanding of the usefulness/added value of ECHI, as the majority of ECHI Indicators are conventional health statistics which are already available and commonly used. Therefore, ECHIM communication activities would play a particularly important role in spreading information about the ECHI framework and its potential benefits. The most effective promotional activity would be the introduction of national and international EU/ECHIM databases (when available) to potential users.

²⁶ sic.hi.lt/html/en/lhic.htm.

²⁷ sic.hi.lt/html/echim.htm.

6.3.2.2. Czech Republic

Health statistics in the Czech Republic have a long tradition of comprehensive data collections. The Institute of Health Information and Statistics of the Czech Republic (IHIS CR), a government organisation founded by Ministry of Health, was established in 1960 and has undergone a huge transformation since 1989. The main task and object of activity of the Institute since that time has been management and co-ordination of the National Health Information System (NHIS), including its further development and improvement. The functions of NHIS include collection and processing of information concerning health and health care, management of national health registries, provision of information and exploitation of this information in health research. The Institute is a component of the State Statistical Service.

The national data presentation system was developed in the beginning of the 1990s on the basis of the Lithuanian software prepared in collaboration with the WHO. It contains health indicators that are collected and presented for each of fourteen regions and for the Czech Republic as a whole, for the time series since 1995. More than 600 indicators are divided into main six groups: demography, health status, health services, economic situation, expenditure on health care, environment, and the cancer registry.

Implementation of ECHI is an ongoing process. The Institute joined this activity already in previous years, in ECHIM, and has continued in Joint Action for ECHIM, in which it is represented by a member of the steering Core Group. In comparison with the previous phase of the ECHIM project, several successful steps have been taken leading to better awareness of the project among both professional and non-professional public during the Joint Action for ECHIM. This was one of the main objectives of the project in the country.

Objectives

The general aims in the Czech Republic were as follows:

- To increase the awareness of ECHIM and the ECHI Indicators among the national health administration and various other groups.
- To incorporate ECHI Indicators in the current national health indicator database and to establish a regular updating and dissemination procedure for information on ECHI Indicators.
- To establish procedures and responsibilities for regular collection and processing of data on a feasible ECHI subset and its provision to the central database.
- To propose and set up improvements in the availability and quality of data for ECHI Indicators.

The basic steps of implementation of the ECHI Indicators in the Czech Republic were similar to those of other countries – to set up the National Implementation Team, to create an overview of the availability of data, to prepare an Implementation and Communication Plan as basic materials for successful implementation. Further objectives have been developed later: in order to promote ECHI Indicators, it was decided to create a national website dedicated to ECHIM, to translate the leaflet into the Czech language and to implement ECHI into the national Data Presentation System.

National Implementation Team

The NIT was set up in September 2009, with only IHIS and Ministry of Health members were involved in it. In 2010 it has been enlarged to include new members who are experts from different health institutions in the Czech Republic. Now it has 10 members, 3 of them from IHIS, 3 from the Ministry of Health, 1 from the National Statistical Institute, 1 from the health insurance company, 1 from the National Institute of Public Health, and 1 from the National Reference Centre. The enlargement of NIT was very important because the relevant health institutions started to collaborate with each other via the NIT membership. The NIT has met twice, with the first meeting held in August 2010 and a second meeting in May 2011.

Data sources

An overview of the availability of indicators from national resources was elaborated on at the very beginning of the project, together with the identification of possible problems that could occur in connection with the data, including the proposed solutions as well. For indicators not covered by the international databases and not regularly available from surveys and routine health statistics, an intensive collaboration with the General Health Insurance Company was initiated. Data from this source are based on the administrative evidence of the General Health Insurance System, which covers more than 70% of the population. All cases where the care is provided to the patient and the given diagnosis is reported are covered (in ambulatory as well as in patient care). Additionally, during the processing, data were filtered in order to eliminate multiple cases of use of care by the same person for a given diagnosis. This resulted in estimation of the registered prevalence of selected diseases (Diabetes, Depression, Asthma, and COPD), which was also shared in the Pilot Data Collection.

In total, 14 indicators were calculated from different data sources (self-reported, annual report, registers, and health insurance data) for the Pilot Data Collection. The years covered were 2008, 2009 and 2010 for some indicators.

Activities

The first draft version of the Implementation Plan has been worked out in September 2009. In February 2010 the National Plan of Communication was prepared. In May 2011 the first version of the Implementation Plan was revised after the second meeting of NIT. Also a new Communication Plan for 2011 and 2012 was prepared and approved on 1st May 2011.

An extensive report for the Ministry of Health was elaborated, including all important documents and groundwork for the realisation of the Joint Action for ECHIM in the Czech Republic. The report was presented to the Ministry of Health in April 2010. After comprehensive remark-proceedings by a majority of departments and after including these remarks, the management committee of the Ministry of Health approved the Joint Action for ECHIM as such, including all the important documents (Implementation Plan and the Communication Plan).

The first step of the implementation of indicators into the national data presentation system was carried out in November 2011, when the ECHI Indicators were identified in the current content of the national version of DPS.

3 simple ways of "integration" of ECHI into the national DPS database were used:

- Adding reference to ECHIM in the Help text and including a list of indicators which match ECHI Indicators
- Including "(ECHI)" at the end of the titles of relevant indicators
- In the "Select parameters" window saving groups of ECHI Indicators (ECHI "windows") which can be quickly loaded by users

In total, "ECHI" has been tagged to more than 100 indicators included in the database, when including the sub-indicators of the 14 ECHI Indicators listed below. Some of them, however, are not exactly the same as the ECHI Indicator and were marked with ECHI*.

In total 14 ECHI Indicators are covered by the database (at least partially)

- 1. Population by sex/age
- 2. Birth rate, crude
- 4. Total fertility rate
- 8. Total unemployment
- 10. Life expectancy
- 11. Infant mortality
- 12. Perinatal mortality

- 13. Disease-specific mortality
- 20. Cancer incidence
- 62. Hospital beds
- 63. Physicians employed
- 64. Nurses employed
- 66. Medical technologies: MRI units and CT scans
- 67. Hospital in-patient discharges, limited diagnoses

Communication

At the end of March 2010, the Joint Action was presented at the IHIS CR seminar for the Czech Medical Society. For this occasion (and for further use) the Czech version of the ECHIM Leaflet was prepared, printed and distributed.²⁸

The ECHIM website²⁹ (both in Czech and in English) has also been prepared and launched in April 2010. It has been updated in July 2011 with new documents and information; also the Czech version of the shortlist was revised.

Figure 2. National ECHIM implementation website of the Czech Republic.



In September 2010 a Press release informing about the ECHIM project was published. The idea in preparing the Czech version was that the English press release would be enlarged upon with specific national information, and this idea was adhered to. In September 2011, a second press release informing about ECHIM was published.

²⁸ www.uzis.cz/cz/echim/en/Leaflet.pdf.

²⁹ www.uzis.cz/cz/echim/en/index.html.

Main problems

The problems faced and the difficulties at the national level were very similar to problems observed at the international level. The key problem in the Czech Republic is a lack of awareness and interest in ECHI Indicators among the potential users. This was solved through communication activities, e.g. the national version of the leaflet and its distribution among the main potential users, development of national websites dedicated to ECHIM. However, it would be necessary to have more support from the key stakeholders.

Another problem concerns the data to be collected for some indicators (namely for those non-EHIS indicators which were included in the Pilot Data Collection). New sources of data via collaboration with the General Health Insurance Company had to be found. At this moment, it is quite difficult to enlarge on the number of ECHI Indicators covered by the national data sources, as only existing data can be exploited, since there are no resources for new data collections. Both adequate finances and legislative support would be needed.

A lack of finances and a lack of experts who could maintain the national presentation tools related to ECHI resulted in complications at the national level in regard to reporting ECHI Indicators and promoting their use. Some activities originally planned have not yet been carried out (translation of the Documentation Sheets, reporting on ECHI Indicators, preparing the national conference and seminar on ECHI Indicators).

Main changes since 2008

The situation changed significantly compared to the previous phase of ECHIM. The most important outcome of the current action was the political support from the Ministry of Health, which improved the chances to achieve various steps in the implementation. Setting up the NIT can be also considered as an important step. In the previous phase of the ECHIM project, activities were more concentrated on data scanning – it was important to find out what kind of data related to ECHI Indicators were available. Due to some uncertainties in certain Documentation Sheets it was impossible to decide whether data conformed to the given indicator or not. As a lot of work has been done on the Documentation Sheets during the last two years, the activities have moved to the data collection and presentation rather than data scanning.

One of the most important activities has been the promotion of ECHI Indicators at the national level, their implementation into the national Data Presentation System, the introduction of the national website, where information on this topic can be found; this was still not available at all during the previous phases and hopefully the work will be continued during the next years.

Lessons learned

Participation in the Joint Action for ECHIM was a great opportunity for the Czech Republic to strengthen the national activities in the use of common and comparable health indicators. The recommended scheme of implementation was followed and the recommended and well-prepared tools for this purpose were used.

The detailed background materials for indicators were appreciated since their use and interpretation became much easier, especially for non-professionals. It resulted in more abundant and better use of health statistics by the key stakeholders in the decision-making processes.

6.3.2.3. Spain

The health information systems in Spain are highly developed. Producing health data and indicators is one of the main tasks of the Ministry of Health, Social Services and Equality, in the framework of a highly decentralised political and administrative structure. The 17 Autonomous Regions that comprise Spain collect extensive amounts of data to inform health policies and management and improve health and social care services. Most of this data are then centrally collated, tabulated, analysed and distributed publicly and without charge.³⁰

There is a sectorial Working Group (Subcommittee on Information Systems) with regional representation, where national indicators and information systems are systematically reviewed. Members are delegates from all Regional Health Systems, and agreement must be reached on:

- · content and integration of information flows,
- technical standards and criteria,
- dissemination of information and
- definition and sources of indicators.

In this context, Spain selected a set of national indicators, which constitute the Key Indicators of the National Health System (INCLA-SNS). ECHI has been the framework used in this task, and the indicators were grouped following the ECHI scheme.

Additionally, a number of health strategies in the National Health System have been developed in recent years. To contribute to the monitoring of these strategies, sets of indicators pertaining to them are selected.

www.msssi.gob.es/en/estadEstudios/estadisticas/sisInfSanSNS/.

A situation analysis of Spain on the 88 indicators currently included in the ECHI shortlist has been conducted so as to assess the availability of national and international data sources, current and future preferred sources, dimensions already available, problems with data and possible solutions as well as their comparability with national indicators.

Objectives

- Ensuring timely delivery of data already being supplied to international databases.
- To use, as far as possible, data sources selected by ECHIM with the aim of helping to improve comparability.
- If recourse to domestic sources is necessary, to use reliable and standardised nationwide sources.
- In case of a lack of national resource for any indicator, examine possibilities for their future existence.
- Gradually harmonising ECHI Indicators and Spanish INCLA-SNS.
- To inform policy makers, health administrators, the media and public of how ECHIM is making progress and what results are being achieved.

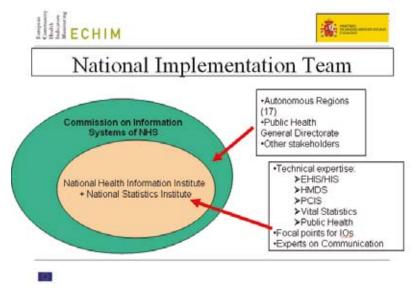
Organisation: National Implementation Team

The National Implementation Team in Spain is organised on two levels (Figure 3). The first level is the Core/Permanent group, comprising the secretariat and representing the front to the project and international organisations. Members of this group are experts based at the Health Information Institute of the Ministry of Health, Social Policy and Equity. They are data correspondents or focal points for different organisations (WHO, Eurostat, OECD, EU, etc.). The National Statistics Institute is also represented in this Core Group.

The second level (Expanded group) includes a representative from each of the 17 Autonomous Regions in Spain plus representatives coming from the Public Health General Directorate and other relevant stakeholders.

Other experts are invited depending on the topics to be discussed, e.g. experts from the cancer or HIV/AIDS registries, drugs information system, social affairs, the National Institute of Health etc. The NIT met at least twice a year for the duration of the Joint Action for ECHIM.

Figure 3. Description of the Spanish National Implementation Team.



Achievements

As a result of previous and current efforts Spain is able to provide 91% of the indicators (67 out of 76 indicators in the implementation list). Of those available at International sources, Spain is able to provide 86% (Table 4).

Table 4. Availability of indicators by data source and Categories. Spain. Situation as of April 2012

Indicator Grouping	International Databases		EHIS/HIS			National Data Sources				Total	
indicator Grouping	No	Yes	No	Yes	Def. pending	No	Yes	Yes, partially	Def. pending		
Demographic and socio- economic factors (9)		9								9	
Determinants of Health (14)	1	2		5	1				5	14	
Health Promotion (4)		1							3	4	
Health Services (29)	1	13		7	1	1	1		7	31	
Health Status (32)	4	10		11	1	1	4	2	5	38	
Total	6	35	0	23	3	2	5	2	20	96	

Note: Although officially there are 88 indicators, those having an A and B form were disaggregated, resulting in a total of 96 indicators.

In 2009–2010 the first round of EHIS in Spain completed its fieldwork and a summary report has been published. 31

Procedures to review the INCLA-SNS list have been adopted in Spain based on similar procedures developed by ECHIM.

Main problems, challenges and pending tasks

Due to a lack of human resources there are some delays in the development and implementation of the Communication Strategy. So far Spain's main activities in terms of the communication about ECHIM include links to the ECHIM website in the health statistical web-portal of the Ministry of Health and inclusion of ECHIM and ECHI Indicators as a topic during a national workshop on health information system.

Some work has been done regarding the development of the Information System for Primary Care at national level (SIAP). Implementation of the SIAP is a key element to obtaining data for some indicators (e.g.: 21B, 23B, 26B and 27B). SIAP will be a representative random multistage sample of around 5 million individuals.

Indicator 29B. Injuries: Home/leisure, violence register based prevalence will not be available in the short term as Spain has decided to use a survey approach rather than a register-based approach. No specific work to change that will be done.

It is important to emphasise that Spain is a country with 17 autonomous regions, which is a complex environment. Nationwide systems and harmonised indicators entail negotiations at several levels, with many institutions involved. As a decentralised state, one of the Ministry of Health's basic tasks is to coordinate regions, ensure their participation and normalise health information.

Lessons learned

Using an external framework (ECHI/ECHIM framework) to develop a set of national key indicators has been fundamental to reaching consensus among the different stakeholders of the Spanish national health information system.

There is still room to improve how EHIS can be integrated in countries like Spain, where national HIS have long tradition.

Maintaining and updating a list of indicators (including the Documentation Sheets) and collating the data and distributing them both at national and international level requires a minimum structure and expertise. The efforts made by many Member States need to be capitalised at EU level, by implementing such a structure.

³¹ www.mspsi.es/estadEstudios/estadisticas/EncuestaEuropea/.

6.3.2.4. Netherlands

Background

In Netherlands, the Dutch Institute for Public Health and the Environment (RIVM) has the lead in the national implementation process of ECHIM. While the implementation process was formalised during the Joint Action for ECHIM by the establishment of a national implementation team (see below), implementation activities in Netherlands had in fact already started before 2009. In 2008, the RIVM published the "Dare to Compare!" report,³² a description of public health in Netherlands based on international comparisons using the ECHI shortlist indicators, also including an analysis of Dutch data quality and availability. The report was very well received, both nationally and internationally. The implementation process from 2009 onwards built on the knowledge and experience gathered during the production of "Dare to Compare!".

ECHI Implementation Advice Group (Dutch NIT) and implementation plan

The Dutch Implementation Advice Group (Dutch NIT) was established in the second half of 2009 and consists of two representatives from the Ministry of Health, one representative from Statistics Netherlands, and four representatives from the RIVM. The Ministry of Health is present in the group because final responsibility regarding (steering of, funding of) several important data collections lies with the Ministry. Statistics Netherlands is present as they collect and deliver the majority of Dutch data to international organisations (e.g. Eurostat, the WHO and the OECD). RIVM, through its role as a partner in the Joint Action for ECHIM, had the lead in the national implementation process, and therefore acted as coordinator, secretariat, and liaison between ECHIM and the ECHI Implementation Advice Group. The RIVM produces national health reports, health system assessments and websites that contain public health information. Therefore, it is a major "user" of health data and indicators in Netherlands.

In 2010, the Group had two meetings. The main issues discussed were:

- Implementation plan, and actions resulting from the plan related to data availability/ quality and communication
- International developments such as EHIS and the Eurostat regulation
- National developments regarding establishing central coordination/harmonisation of health data collections

Harbers MM, Van der Wilk EA, Kramers PGN, Kuunders MMAP, Verschuuren M, Eliyahu H, Achterberg P. Dare to Compare! Benchmarking Dutch health with the European Community Health Indicators (ECHI). RIVM report number 270051011. Houten: Bohn Stafleu Van Loghum, 2008. www.rivm.nl/bibliotheek/rapporten/270051011.pdf.

Before the ending of the Joint Action for ECHIM, a third and last meeting of the Dutch Implementation Advice Group will take place. Topics on the agenda will be the achievements of the Joint Action for ECHIM and sustaining the work needed on data for ECHI Indicators in Netherlands after the ending of the Joint Action for ECHIM.

The RIVM drafted an implementation plan. This plan was discussed with the Implementation Advice Group and provided guidance for the implementation activities. In the plan four main tasks were identified that needed to be carried out for furthering the national implementation process. These four activities are:

- 1. Improving data availability and quality of Dutch data for ECHI Indicators
- 2. Providing data for the ECHIM Pilot Data Collection
- 3. Communication about ECHI, including data presentations
- 4. Ensuring sustainability of the national implementation process after the ending of the Joint Action for ECHIM

The achievements related to these action points are described in the sections below.

Data availability and quality

To be able to see what needs to be done to improve data availability and the quality of data for the ECHI Indicators, first an overview is needed of the current data status. As described in the background section, in Netherlands the RIVM produced such an overview in 2008 (the "Dare to Compare!" report). As in the meantime quite a few ECHI indicator definitions have been altered or refined, it was necessary during the Joint Action for ECHIM to update this overview. This update has recently been finalised and will be input for further work on data improvement (if activities in this field can be sustained after the Joint Action for ECHIM).

During the Joint Action for ECHIM, Statistics Netherlands worked on improved estimates for three ECHI Indicators: 28. (Low) birth weight, 63. Physicians employed and 64. Nurses employed. Dutch data on low birth weight until then were based on Health Interview Survey data. Statistics Netherlands has calculated better estimates using combined data from the national Perinatal Registry (PRN) and the Basic Municipal Registration (GBA). Regarding the numbers of physicians and nurses: Dutch data were based on registered professionals (BIG registry), while ECHI (and Eurostat) requests data on practising physicians. Statistics Netherlands has now made estimates of professionals working in the health care sector ("professionally active physicians or nurses") by combining the BIG registry with the SSB database. This is a microintegrated database of Statistics Netherlands with data from the municipal register, tax

register, social security, and business register.³³ Though this is an improvement, further refinement would be necessary to fully meet ECHI requirements ("practising physicians or nurses"). This would require information about the exact type of job carried out by the professionals within the health care sector so as to be able to eliminate nurses and physicians working e.g. as managers or researchers.

EHIS has not been implemented yet in Netherlands. However, the Medical Consumption Module of the Dutch National HIS (annual Quality of Life Survey, formerly: POLS, now: Gezondheidsenquête) has recently been updated, and during this update EHIS requirements were taken into account. Statistics Netherlands is waiting with the full implementation of EHIS until it becomes obligatory.

ECHIM Pilot Data Collection

The major conclusion that could be drawn from this exercise is that the Dutch Implementation Advice Group was able to submit data for the majority of indicators requested in the ECHIM Pilot Data Collection, also stratified according to the requested sub-groups (sex, age, SES). Other conclusions were:

- Data ownership in Netherlands is scattered, which made it difficult to gather
 all necessary data. This applies e.g. to injury data; data on home/leisure/school
 injuries are collected by another organisation than the one recording road traffic
 accidents. Moreover, not all necessary data are freely available; some organisations
 only publish some aggregated data at their websites and charge fees for tailored data
 extractions from their more detailed databases.
- For many of the (E)HIS-based estimates, sufficient data are available in Netherlands through the annual Quality of Life Survey (formerly: POLS, now: Gezondheidsenquête). Many indicators were, however, not readily available in the required format, so a lot of manual work was needed to compute the requested indicator data.
- In Netherlands, it is possible to compute attack rates for Acute Myocardial Infarction (AMI) and stroke according to the ECHI definition, i.e. through linking hospital discharge and mortality data at the patient level. For the ECHIM Pilot Data Collection, Statistics Netherlands computed the attack rates for AMI and stroke for the year 2004. From 2005 onwards, the coverage of the Hospital Discharge Register has decreased, which hampers the calculation of these indicators for recent years. It is envisaged however that the coverage will increase again, which will enable updated figures on the AMI and stroke attack rates in the future.

³³ Eurostat – Health care staff, annex to Eurostat metadata on Health care resources (non-expenditure data): http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/Annexes/hlth_res_esms_anl.pdf.

Communications activities

The main communication activity carried out in Netherlands is the integration of the ECHI Indicators in the Public Health Compass website (Nationaal Kompas Volksgezondheid, www.nationaalkompas.nl). The Compass is a comprehensive source of information on the state of public health in Netherlands. It is maintained at the RIVM and many experts (also from outside the RIVM) contribute to its content. The Compass contains a horizontal theme on international comparisons. Here an overview of the ECHI shortlist has been added,³⁴ and in several topics, graphs with ECHI Indicators have already been made available (see Figure 4). This integration will be expanded during the coming years and existing topics will be updated regularly. Next to the Compass website, international comparisons using ECHI Indicators will also be presented in the Public Health Atlas (Zorgatlas, www.zorgatlas.nl; see Figure 5). The Atlas website publishes maps on the state of regional public health in Netherlands, and is also hosted at RIVM.

Another important achievement relating to the implementation of the ECHI Indicators in Netherlands was the production of eight International Policy Overviews (IPOs). The aim of the IPOs is to support policy making through providing structures and focussed evidence. This is achieved through giving insight into policy options and good practice examples from other countries in relation to ECHI shortlist topics. IPOs contain information about the effectiveness of policies and interventions, and describe what is happening in the policy area concerned both at national (Netherlands and other countries) and international level. The IPOs are written in English (with a Dutch summary). IPOs were produced for the following topics:

- Alcohol
- Antibiotic resistance
- Breastfeeding
- Health in all -policies
- Mental health and depression
- Obesity
- Occupational health and safety
- Smoking

The IPOs are available on the Dutch Public Health Compass website³⁵.

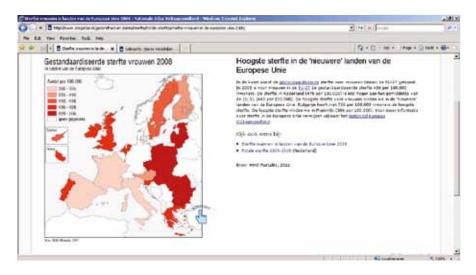
Nationaal Kompas Volksgezondheid, European Community Health Indicators (ECHI). nationaalkompas.nl/thema-s/internationale-vergelijkingen/european-community-health-indicators-echi/.

³⁵ Nationaal Kompas Volksgezondheid, International Policy Overviews. nationaalkompas.nl/thema-s/internationale-vergelijkingen/.

Figure 4. Example of an ECHI Indicator in the Dutch Public Health Compass



Figure 5. Example of an ECHI Indicator in the Dutch Public Health Atlas



Other communication activities were:

 Publication of a short review on international comparisons and ECHI on the RIVM website Zorggegevens.³⁶ This website contains meta-information on data sources for public health and healthcare in Netherlands and on the use of those data in national and international reports.

³⁶ Zorggegevens, kennisplatform internationaal: www.zorggegevens.nl/kennisplatform/internationaal/.

- An "ECHI in Netherlands" Newsletter, of which two editions were published.
- Production of an ECHI Factsheet (used as background material in the websites mentioned above and in the first edition of the Newsletter).
- Topic on ECHI in the international newsletter of the Ministry of Health.
- Presentation on the national implementation of ECHI at the Dutch Public Health Conference.

When the final reports of the Joint Action have been published, some final communication activities are planned (news items in different websites/newsletter, article in the Dutch Public Health Journal (TSG)). In June, a lecture on ECHI and international data will be held at the RIVM.

Problems encountered, lessons learned and challenges ahead

Before the ending of the Joint Action for ECHIM, a final meeting of the ECHI Implementation Advice Group will take place. The most important issue that will be discussed is how to sustain the implementation of ECHI after the ending of the Joint Action for ECHIM. The proposal of RIVM will be to incorporate the data work needed for ECHI in a project called "Focal Point", which will focus on keeping an overview of the quality and delivery of Dutch health data to international organisations. Therefore, this would provide a very suitable organisational structure for incorporating and continuing the ECHI work. Funding for the Focal Point project is currently still on an ad hoc basis, however, so it is not yet clear whether this will provide a sustainable solution in the long run.

A complicating factor in relation to the data coordination work for ECHI in particular and to the data coordination work for international data deliveries in general is the scattered data ownership situation in Netherlands. Many different stakeholders, both public and private, collect (public) health data, without central steering. Since the beginning of the Joint Action, the Ministry of Health was working on a plan to establish central coordination and steering for health data collections in Netherlands. Some progress has been made in bringing together municipal health services and Statistics Netherlands to jointly collect a first set of HIS data. Next, HIS data collections by various lifestyle related organisations and institutes in Netherlands are now under scrutiny for possible harmonisation and improved effectiveness. Some of these activities may be of relevance to the quality and availability of Dutch ECHI Indicator data.

To get to grips with this scattered data situation, it is necessary to make a detailed inventory of Dutch health data availability and regularly talk with those producing and delivering data. The work on the ECHI Pilot Data Collection has provided the RIVM

ECHI team with increased insight into national data availability and the quality for those indicators that were part of the pilot (i.e. those indicators for which currently no regular international data collections yet exist). Earlier, the "Dare to Compare!" report already provided a good overview of the quality and availability of indicators present in the international databases. Further inventory work is still needed, however, and could be carried out during the next phases of the Focal Point project.

Finally, because of the financial crisis, public funds are being cut also at the Ministry of Health. Until now this has not resulted in direct cuts for the data work related to international data deliveries, but this may well happen in the (near) future. This could also apply to funds for international cooperation e.g. in the field of indicator development and data harmonisation.

6.3.3. Overview of the implementation of the ECHI Indicators in Europe

In this Chapter, the implementation process and its level is presented for all participating countries as of July 2012. Six different stages of implementation of the ECHI Indicators at the national level are distinguished. These are not mutually exclusive stages, but they can be listed from the "worst" to the "best" stage. The stages are categorised as:

- 1. No actions for ECHI implementation took place in the country.
- 2. Only some of the steps and actions recommended by the Joint Action for ECHIM have been taken (e.g. National Implementation Team, Implementation plan, Communication survey, Data availability sheet, and Pilot data collection; for a description of these actions and documents, see Chapter 5).
- 3. A national ECHIM website exists, preferably including also links to www.echim. org and the HEIDI Data Tool.
- 4. ECHI Indicators are explicitly mentioned in the most important national health data presentation sites (of public health institute, statistics institute, ministry of health etc.), in addition to the national ECHIM website.
- The use of ECHI Indicators in the national health monitoring and reporting systems is stated in the plans for future actions of public health institute, ministry of health's strategies, policy agendas etc.
- 6. ECHI Indicators are incorporated into national health information systems in one or several of following forms:
 - a) ECHI Indicators have been included in national health indicator databases or datasets.
 - b) ECHI Indicators have been used in public health reports and/or other publications.
 - c) ECHI Indicators have been included in public health monitoring and reporting systems in other forms.

Table 5. Overview of the status of the implementation of the ECHI Indicators by country at the end of the Joint Action for ECHIM in June 2012.

- 6a. ECHI Indicators have been included in national health indicator databases
- 6b. ECHI Indicators have been used in public health reporting
- 6c. ECHI Indicators have been included in public healtsystems in other forms
- 5. Use of ECHI Indicators in health monitoring is stated in the plans for future actions
- 4. ECHI Indicators are explicitly mentioned in health data presentation websites
- 3. National ECHIM website exists
- 2. Only some of the implementation actions done
- 1. Not implemented

COUNTRY	6a.	6b.	6c.	5.	4.	3.	2.	1.
Albania								
Austria								
Belgium								
Bulgaria								
Croatia								
Cyprus								
Czech Republic								
Denmark								
Estonia								
Finland								
France								
Germany								
Greece								
Hungary								
Iceland								
Ireland								
Italy								
Kosovo								
Latvia								
Lithuania								
Luxembourg								
Malta								
Moldova								
Netherlands								
Norway								
Poland								
Portugal								
Romania								
Serbia								
Slovakia								
Slovenia								
Spain								
Sweden								
Switzerland								
Turkey								
United Kingdom								

Of the countries that drafted and filled in most of the requested documents, especially the National Implementation Plan and Data Availability Sheet, practically all were able to get the ECHI Indicators eventually implemented (category 6). Alternatively, the countries had advanced in the implementation process at least so that some political and administrative support and acknowledgement of the ECHI Indicators had been achieved and thus implementation in the near future is likely (categories 4–5).

Most of the ECHIM Core Group countries eventually progressed well in the implementation (Table 5). Due to various reasons (such as a change in the national circumstances, a change of contact person, financial and staff cutbacks etc.), some countries were not able to advance as far in the implementation as they initially had hoped (e.g. Sweden). That happened also e.g. in Slovenia despite a promising start.

In countries with strong regions (such as the United Kingdom, Belgium, Spain) implementation is of course even more complicated than in countries with a centralised administrative structure. In the worst scenario one has to harmonise various health indicator systems to produce comparable and reliable estimates within one country. A complicating factor in relation to the data coordination work in these countries for ECHI in particular and to the data coordination work for international data deliveries in general is the scattered data ownership situation. Collating data requires a high degree of cooperation which is not always possible with limited resources. But as the case of Spain shows, these disadvantages can sometimes be used to work in one's favour.

A public health report based on European-wide comparisons using the ECHI shortlist indicators has been published in two countries, in 2008 in Netherlands ("Dare to Compare!") and in 2012 in France (*La santé en France et en. Europe: convergences et contrastes*).³⁷ The use of ECHI Indicators and framework is highly recommended both nationally and in international health reporting by the EU.

ECHIM was not able to make good contacts with some countries that are not in the Core Group. These countries did not draft any of the documents recommended by ECHIM (e.g. Hungary and Turkey; although Hungary participated in the Pilot Data Collection), and the implementation process has not yet been started.

There were also a few countries that eventually did not proceed much further in the implementation process than drafting some of the documents proposed by ECHIM. In most cases this meant the replying to the Communication Survey, i.e. identifying possible key problems faced in the beginning of the implementation process and with

³⁷ Haut conseil de la santé publique (HCSP). La santé en France et en Europe: convergences et contrastes. Collection: Avis et rapports (HCSP). Mars 2012. 265 pages. www.solipam.fr/IMG/pdf/hcspr20120301_santeFranceEurope.pdf.

the key national stakeholders. In some cases, especially in those countries that joined ECHIM later, the start was the Indicator Data Availability Sheet and the assessment of national data availability and quality for the ECHI Indicators.

There are various reasons why the progress of the implementation was slow. First of all, in the countries that were not in the Core Group, the official launch of the Joint Action for ECHIM was as recently as March 2010. Furthermore, the supporting letter by DG SANCO to the participating countries was eventually sent quite late, only in January 2011. The slow progress was in part due to the fact that some countries joined the Joint Action work in practice even later (e.g. Albania, Moldova). Therefore, a number of countries had a limited time for any implementation work.

In some countries the contact person left his/her position and it took a while before a new contact person was appointed or found. In some other cases the implementation process in practice died off when the contact person changed.

Another contributing factor was the deep economic recession in Europe prior to and during the time of the Joint Action for ECHIM. Therefore, the health sector was rearranged in many countries: institutes and organisations were merged or separated, sometimes causing a change of the collaborating institute or at least the contact person. Due to the economic recession, cuts were made in personnel and funding in many of the participating countries and collaborating institutes.

To administer the Joint Action for ECHIM in all European countries was a demanding task. Changes in circumstances can interfere with any social process intended to lead to a permanent information system. It was also not possible to foresee such events prior to the Joint Action for ECHIM. All the factors mentioned contributed to delays and slowed down the implementation work.

6.4. Lessons learned, conclusions and recommendations

ECHIM should have devoted more efforts to finding an experienced contact person in the countries where the initiation of the implementation process was slow, especially at the start of the Joint Action, but also later when there was no progress in the implementation.

In the case of a change in the contact person, ECHIM should have been more firm in insisting that the replacement contact person should be nominated by the country as soon as possible. On the other hand, ECHIM could not have asked for a country/institute to nominate another contact person in place of an existing one. In practice this

could not have been done even if ECHIM assessed that that the progress made was too slow and no implementation documents were drafted.

Some administrative and technical decisions and arrangement should have been implemented faster. ECHIM could have been more firm with the deadlines agreed in the meetings and email communications for drafting various implementation documents. On the other hand accepting delays was intended to persist with as many members of the network as possible. ECHIM could have created more commitment through a more active approach, e.g. site visits. On the other hand, communicating by emails and questionnaires was supplemented by regular Core Group and Extended Core Group meetings.

However, one outstanding reason was given by some contact persons for the less than active participation of the country: They stated that at the ministerial level it was interpreted that the country was not officially involved in the project until the Ministry has received a formal invitation from DG SANCO. Therefore, funds, staff and other resources could not be dedicated to the ECHIM work before the official letter to support ECHIM activities was received. It was sent in January 2011, which was late.

The consequences of the economic recession during the Joint Action for ECHIM could be seen clearly. Less funding, less staff, the merging of institutes and organisations meant that in many countries the prerequisites of implementation deteriorated and thus the implementation process slowed down. Furthermore, many countries felt that DG SANCO's support for the national implementation of ECHI Indicators was insufficient. Such support would have been needed at the political level, meaning information to national governments on the purpose of the project with a request for support at the policy level, as well as the financial level. Symbolically, even a small amount of financial support by DG SANCO would have had a positive effect. This was originally suggested in the initial application for the Joint Action for ECHIM.

The best plan and practise to implement the ECHI Indicators is to integrate them into the national health indicator systems and databases. By being a part of the routine health data collection, processing, and dissemination systems in countries, ECHI Indicators would be automatically updated at regular intervals without any special ECHIM or DG SANCO initiated efforts. This would also make the data readily available for reporting to the central EU-level database. ECHIM would also benefit from any efforts to improve national health information systems in general. In addition, the ECHI Indicator data collection should be integrated with a regular, existing national work related to data deliveries to international databases of Eurostat, the WHO and the OECD.

The implementation of indicators is long-term work. A constant support from national and EU health authorities, statistical authorities, professionals and decision-makers is needed. Thus the need to find ways to increase awareness about ECHIM both among national and EU-level health administration and key health data providers is eminent. Even good contacts with national stakeholders and/or their awareness of the importance of public health data did not always guarantee strong enough support. Stronger moral, practical and preferably also financial support would have been useful to create an additional push in the implementation work within participating countries.

Following the ECHIM initiative the importance of communication was appreciated in most countries, but different environments and administrative arrangements, historical contexts meant that it was rarely used actively enough. We believe that still more effort should have been devoted to communications issues, although, admittedly, they were on the agenda of every ECHIM Core Group and Extended ECHIM Core Group meeting. In addition, various promotional materials were produced by ECHIM for countries to localise and make use of, as described in Chapter 3. Despite several successes, they could have been promoted more actively.

Successful implementation of the second round of EHIS in 2014 is crucial to European Health Monitoring; it will provide the data for a considerable number of ECHI shortlist indicators. The still ongoing revision of the EHIS questionnaire may have consequences for the indicator definitions and calculations as described in the Documentation Sheets. Continuous revision and improvement is typical for health information and it highlights the importance of continuing ECHI work also after the Joint Action for ECHIM ends.

To execute comparable health examination surveys (EHES) in the majority of European countries will take many more years. The outlook is that countries already committed to such surveys will continue whilst other countries continue to wonder about their added value (over HISs), cost, and cost-effectiveness. HESs are the only valid source for data on several health determinants and measures of disease. There are no ECHI indicators for some essential health measures simply because the data are not yet available. When, hopefully before 2020, a reasonable number of countries can provide HES data, it will be time to revise the ECHI shortlist.

An important step of DG SANCO was the significant improvement of the HEIDI Data Tool during the Joint Action for ECHIM. This enables users to easily make international comparisons of selected ECHI Indicators. On the other hand, it would be desirable to have a better description of the metadata for users, e.g. the deviations from the standard methodology if there are any in a given country.

7. THE NEW ECHI DATA

Nils Kirsch, Jürgen Thelen

7.1. Background

The ECHIM Work Package (WP) 5 focussed on collecting and disseminating new indicator data by means of a pilot collection. In addition, WP5 contributed to the process aimed at the identification of a sustainable platform for the presentation of the ECHI Indicators and the related data integration process. The Pilot Data Collection would add to the comparability of health data and contextual information based on the ECHI shortlist.

About half of the ECHI indicators can be extracted from international databases (WHO Health for All, OECD Health Data, Eurostat) and data collections organised by European Agencies (ECDC, EMCDDA, IARC).

For quite a number of indicators—mainly relating to health status and health determinants—data can only be more easily obtained by means of population-based interview and examination surveys. Furthermore, depending on the size and scope of the interview, the majority of health interview surveys provide information on the socioeconomic status (SES) of the participating individuals. There are several approaches for tackling this issue, e.g. questions on household income, occupational status and highest completed education. From various surveys it is known that questions on household income are more prone to (positive) reporting bias, and item non-response. Since there is no European-wide definition for a composite SES index it has been decided to use the currently most comparable and robust alternative, the information on the highest educational level accomplished, as a proxy for the socioeconomic classification. According to the ISCED-97 classification³⁸ comprising seven educational levels, an aggregation in low (ISCED level 0–2); medium (ISCED level 3–4) and high (ISCED level 5–6) education is mostly used to stratify the population by educational status.

The European Health Interview Survey (EHIS) was developed as a standard questionnaire³⁹ The main objective of EHIS is to gather survey-based indicator data that are cross-nationally comparable in the EU, including collaborating accession and candidate countries and EEA/EFTA states. For this reason EHIS was selected as the preferred data source for the majority of health status and health determinant indicators

www.uis.unesco.org/Library/Documents/isced97-en.pdf.

³⁹ Questionnaire for the 1st EHIS round (2007–2008), English Version. circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/.

of the ECHI shortlist. Accordingly, the ECHIM Pilot Data Collection focussed on those health survey based indicators that are not readily available from international sources, respectively other European data collections like the EU-Survey Statistics on Income and Living Conditions.

By 2010 the first round of EHIS was completed in 20 European countries to a varying degree. In total, 26 indicators⁴⁰ based on DG SANCO and DG EMPL needs and covering 3 domains (health status, health determinants and health care) were calculated by Eurostat and disseminated via the Eurostat database website.

A report⁴¹ on the comparison of EHIS source questions with national survey questions revealed that EHIS was fully or to a minor extent partly comparable in ten countries.

The remaining nine countries implemented only part of the four EHIS modules or included non-comparable elements into their national HIS. Nine EU Member States (Denmark, Ireland, Finland, Lithuania, Luxembourg, Netherlands, Portugal, Sweden, and UK) plus Iceland and Croatia either stuck to their former customised surveys or did not conduct a population-based health survey recently. It must be noted that the conducting of national health surveys following the EHIS guidelines⁴² was not mandatory for European countries, but based on a "gentleman's agreement".

The main targets of the ECHIM Pilot Data Collection were the countries that did not fully or did not implement EHIS at all. The ECHIM Pilot Data Collection took place between July 2010 and April 2011.

7.2. Methods

Out of the 36 countries participating in ECHIM, communication was established with contact points in 34 countries. Afterwards, WP 5 sent a user-friendly, hyperlinked and macro-embedded excel questionnaire to the national contact points. This included detailed instructions on how to handle the questionnaire and how to operationalise the 20 indicators of the ECHI shortlist.

⁴⁰ EHIS Indicators guidelines: circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/.

Antti Tuomi-Nikula, Sanna Ahonen, Päivikki Koponen. Comparison of EHIS source questions with national survey questions. Final report, June 2011. circa.europa.eu/Public/irc/dsis/health/library?l=/methodologiessandsdatasc/healthsinterviewssurvey/ehis_wave_1/.

⁴² Guidelines for the development and criteria for the adoption of Health Survey instruments, circa.europa.eu/Public/irc/dsis/health/library?l=/reports/healthsinterviewssurvey/.

From the domain of health status we asked about the prevalence data on diabetes (#21), depression (#23), acute myocardial infarction (#24), stroke (#25), asthma (#26), COPD (#27), and injury incidence, differentiated by home/leisure (#29) and road traffic accidents (#30) and by injury severity.

The health determinant indicators were body mass index (#42), blood pressure (#43), regular smokers (#44), and both fruit (#49) and vegetable (#50) consumption. The section of health services was described by indicators such as influenza vaccination rates of elderly (#57), cancer screening rates (#58 breast, #59 cervical and #60 colon) and utilisation of physicians, medical specialists and dentists/orthodontists.

Twelve countries were not asked to provide the EHIS derived indicators since their data were centrally computed and could be obtained from Eurostat.

However, all participants were also requested to deliver register-based data for morbidity indicators, road traffic accidents and health professionals' utilisation, if available. Regarding acute myocardial infarction (AMI) and stroke attack rates (fatal and non-fatal) it is anyway necessary to avail specialised registers and match hospital discharges with causes of death registers.

Participants were requested to deliver the indicator data according to ECHI definitions and breakdowns by total, sex, varying age groups and by the three educational levels. For completeness, ECHIM WP 5 obtained the missing indicator data of EHIS participating countries from Eurostat according to the corresponding ECHI definitions as of July 2011.

Additionally, national contact points and data holders were requested to provide metadata for the selected indicators. The concerned metadata sheet was based on a slightly tailored template largely following the Euro SDMX Metadata Structure (ESMS). ⁴³ The relevant EHIS metadata ESMS ⁴⁴ template provided essential information used in that context, too.

EURO SDMX Metadata Structure (release 3.3.2009).

epp.eurostat.ec.europa.eu/cache/ITY_SDDS/Annexes/ESMS_Structure.xls.

EHIS – Eurostat Reference Metadata.

epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/hlth_ehis_esms.htm.

The Pilot Data Collection was a largely successful exercise although the Joint Action for ECHIM had neither an official mandate nor could it provide extra resources. So the entire quest was depending on the willingness and collaboration of the partners whereby several Joint Action partners reported on serious difficulties in delivering the requested data. The main reasons mentioned were a shortage of manpower at the national statistical offices or public health institutes, a lack of institutional and/or political commitment, changes of personnel, fragmentation of data sources, or having no consistent system of health monitoring and reporting at national level, which was concomitant with a lack of appropriate registers. Hence, for one reason or another ECHIM WP 5 extended the deadline for re-delivery of questionnaires three times, but obtained no data at all from nine countries (Bulgaria, Croatia, Greece, Luxembourg, Portugal, Slovakia, Slovenia, Sweden and Turkey).

On the other hand, the majority of countries returned the questionnaire (N=25, response rate=73,5%), but with varying extents of completeness and breakdowns of indicators, respectively. (A comprehensive overview can be found in Annex 1 of Report III)

The results for register-based indicators were less successful than initially expected. Either countries maintained morbidity registers and kept no survey data, or vice versa. Additionally, the "quality of registers" depends strongly on proper IDC-9/10 coding practice (sometimes also matching with Cause of Death registers) and a suitable coverage of the national population. The lack of SES information depends on the register (also stratification to age bands is not granted) and was therefore expected in advance. Except for AMI and stroke attack rates the registers of morbidity and healthcare utilisation predominantly keep data on total numbers and often only differentiated by sex and are not stratified by age groups according to ECHI. Additionally, the register-based indicator values should be reported as age-standardised (European Standard Population), while the survey data are not standardised but should gain population representativeness through the sample composition and likely ex-post application of weighting factors.

These source-dependant characteristics disable a direct intra-country equality check between survey results and registers and thus also hamper the intended valid crosscountry comparison.

The indicator data attained during the Pilot Collection were pooled with the centrally

computed ECHI-conforming data from Eurostat in July 2011. Although EHIS participating Member States were spared from EHIS-deduced indicator submission, four countries (Austria, Belgium, Estonia and France) additionally sent their nationally

produced data, which enabled a further opportunity: a small-scale comparison between national results with the unique computation methodology at Eurostat.

While the Austrian and Belgian data matched very closely the results from Eurostat, the deviations were larger for the other two countries. To understand the results from Estonia, one must note that this country was the first to carry out a complete EHIS in 2006 ("Pilot EHIS"), which enlarges the likelihood of introducing random and systematic errors in conducting and processing EHIS, alike. Whenever such deviations could not be sorted out bilaterally, ECHIM WP 5 opted for the data calculated by Eurostat and used these data for the joint analyses.

The main output of Report III is the analysis of those newly gathered ECHI-conforming data. The vast majority are based on (E)HIS results, except register/ administratively deduced indicators for AMI and stroke attack rates plus injury rates from road traffic. Wherever possible, rough intra-country comparisons with register/ administratively deduced data are attempted with the survey based indicators. However, each analysed indicator is covered by its own Indicator Data Sheet (IDS), and since two indicators on injuries contained two definitions (according to severity of accidents) and one indicator contained even three operationalisations (medical service utilisation), WP 5 decided to elaborate five single IDSs out of the three ECHI Indicators. This approach is regarded as user-friendly and easier to comprehend.

All in all WP 5 was able to produce 24 IDS which entails 21 (E)HIS deduced indicator data sheets and three register/ administratively- based IDS on AMI and stroke prevalence rates plus non-fatal road traffic incidences.

- All Indicator Data Sheets comprise four paragraphs:
- A. Definition, Operationalisation, Dimensions, Sources, Rationale
- B. Figures according to breakdowns (Data tables presented in Annex 3 of Report III)
- C. Descriptive data analysis (min-max-means-rankings, correlations if possible)
- D. Remarks and Discussion, Comparison with other sources, relevant literature and charts / figures, suggestions for possible interpretation of «outliers», documentation of quoted literature

All compiled IDS can be found in Chapter 1.3 of Report III

In the IDSs paragraph D, other data sources like the OECD, WHO Europe, certain research institutes/federations and suitable reports/publications are used for initial intraand international comparisons, in order to appraise the rating of the new ECHI data. Such comparability assessments need time and expert knowledge, meaning that the IDS discussion and interpretation section cannot be regarded as having been exhaustively elaborated. Further input might be necessary and would give more life to the envisaged wiki-like functionalities of DG SANCO's HEIDI portal after the end of the Joint Action for ECHIM.

The pure indicator data will be submitted to DG SANCO (Unit A4) in order to incorporate those into the HEIDI Data Tool. The information provided in IDS paragraphs C and D will also be used as metadata within the HEIDI wiki environment in order to help users to comprehend the displayed data.

7.4. Presentation of the ECHI data with the HEIDI Data Tool

The development of a sustainable IT-solution for the presentation of the ECHI Indicators was one of the objectives of the Joint Action for ECHIM. In this context the task of WP5 was to participate in the process aimed at identification of a sustainable platform for the presentation of the ECHI data and the underlying IT solution.

For this purpose several software solutions for the interactive presentation of the ECHI Indicators were tested and assessed for their functionality and usability. The following software solutions were included in the review:

- 1. WHO Data Presentation System, a license-free standalone solution developed by WHO and used in several EU countries (e.g. Czech Republic, Italy and Lithuania)
- InstantAtlas, a commercial software solution by GeoWise Ltd., UK (used by the WHO Regional Office for Europe, UK regional health observatories and other regional health authorities)
- 3. ECHI@EC, a flash application developed by DG SANCO/A4.

All of the above-listed solutions provide the basic functionalities that are regarded essential for an up-to-date data presentation system. However the features provided by the different solutions vary substantially.

With regard to the overarching objective to establish a sustainable solution that could be permanently hosted by DG SANCO, the selection process had to be streamlined with the ICT policy of the European Commission implemented at that time. Following this general requirement, the integration of third party software products had to be avoided and consequently the flash application ECHI@EC was selected as the presentation tool. However, following an in-depth discussion in the working group set up for this task,

it was concluded, that the ECHI@EC was not fit for purpose in the version available by then (March 2010). The DG SANCO unit responsible for the development of the presentation tool was therefore asked to introduce a large number of changes and adaptations of the tool, resulting in a complete overhaul of the underlying flash application.

Following the complete revision of the data presentation tool and the subsequent implementation as a component of the so-called HEIDI Wiki, the name of the application was changed to the HEIDI Data Tool. HEIDI is an acronym for Health in Europe: Information and Data Interface.

While the HEIDI Data Tool is designed to present the available data for the ECHI Indicators, the newly presented HEIDI Wiki intends to be the technical platform for the European Commission Health Information System. The HEIDI Wiki was officially launched on the occasion of the conference "EU Health Programmes: Results and Perspectives" (Brussels, 3.5.2012).

At the end of the Joint Action for ECHIM, data for 44 of the ECHI shortlist indicators were integrated in the HEIDI Data Tool. These indicators are already collected by international organisations according to the agreed ECHIM definition. However, the ECHI Indicators for hospital discharges and mortality are not presented for the age groups defined by ECHIM due to the aggregation of the routinely collected data.

A process for an automated integration from international databases has been set up by DG SANCO. Additional data for the ECHI shortlist indicators is provided by the ECHIM Pilot Data Collection. The new ECHI data will be uploaded to the HEIDI Data Tool during the second half of 2012.

7.5. Remaining issues concerning the HEIDI Data Tool and the gathering of national data

The development of the HEIDI Data Tool for presenting and disseminating ECHI data marks an important milestone in the process. Finally a central data presentation system at EU level has been launched and integrated into the EU Health Information System.

However, a number of crucial problems regarding the HEIDI Data Tool and the underlying data remain to be solved. In the following, some important and necessary improvements are briefly described.

Some of the important functionalities of the HEIDI Data Tool were not implemented by the end of the Joint Action for ECHIM. Among these the most important are:

- HEIDI Data Tool should provide the possibility for linking into the system. This
 is important to allow health information systems in Member States to directly link
 with the presentation of specific ECHI Indicators
- The selection of two or more indicators to be displayed at once has to be implemented. This would enable the comparison of ECHI Indicator data e.g. for different educational groups. Currently only one ECHI Indicator can be presented which means that no comparisons (e.g. between men and women, educational groups or age groups) are possible.
- A user-friendly download of data for a single indicator or an indicator group is not yet implemented. Moreover it is recommended to enable the download of a complete data set.

One of the main tasks of WP5 of ECHIM was the gathering of new ECHI data from national correspondents. Following the submission by the partners, the data was subject to a face-validity check. By this means a number of errors were eliminated from the delivered national data sets.

Due to the limited duration of the Joint Action for ECHIM, it was not possible to establish a permanent central data repository. This functionality is however urgently needed to be able to update the ECHI data.

Several options regarding the institutional responsibility for maintaining the central database have been discussed. As a result it became apparent that the EU institutions would require a legal basis for the collection of the data. In view of the tabular nature of the data coming from the MSs, this should be a minor problem. Furthermore, Eurostat will be in charge of collecting and maintaining data according to the framework regulation (EC/1338/2008),⁴⁵ which covers the majority of the ECHI shortlist indicators.

For the ECHI shortlist indicators currently not covered by the framework regulation and its annexes, it is suggested to include these in the common data collection by Eurostat, the WHO and the OECD. However, given the lack of an official mandate, it was not yet possible for the Joint Action for ECHIM to add to the ECHI shortlist indicators that are not already collected.

Regulation (EC) 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work. eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX;32008R1338:EN:NOT.

In addition, the question regarding the operational resources to carry out the core tasks needed to maintain the HEIDI Data Tool remain unanswered. According to the assessment of ECHIM these core tasks consist of:

- Data handling and quality control: Maintaining the underlying database of the HEIDI Data Tool needs to be carried out with content expertise. This task comprises initiation and control of the automated data integration process from international databases, data validation in terms of the appropriateness of the definitions, and checking of the correct stratification schemes (age, sex, SES, region), and where necessary initiation of a data collection for ECHI Indicators not covered by an established data flow
- Further development of the HEIDI Data Tool: As stated above the HEIDI Data Tool still requires improvement. This refers to the functionalities of the tool and the possibilities to present the data. Although the HEIDI Data Tool has now been designed as a part of the HEIDI Wiki, it is still accessible as a stand-alone tool which does not achieve the possibilities of other indicator presentation platforms.

According to the proposal made by the Joint Action for ECHIM these tasks could be accomplished by an interim structure which would however require financial support by the next Health Programme.

The experiences of the review of the automated integration process and the properties of the HEIDI Data Tool are presented in more detail in Chapter 2 of Report III.

8. ECHIM. DG SANCO AND EUROSTAT COLLABORATION

Maartje Harbers, Pieter Kramers, Marieke Verschuuren, Nils Kirsch, Jürgen Thelen, Antti Tuomi-Nikula

8.1. DG SANCO actions to support ECHI work, 1998-2012

The ECHI initiative started in 1998 from the European Commission's new mandate in health monitoring, more specifically from its main goal "to establish a set of health indicators for the EU". This was specified further in 2003 by DG SANCO's call for developing the ECHI shortlist for priority implementation. As such, the ECHI work has been appreciated by the EC right from the start, as being central to its objectives in health monitoring. This was apparent from e.g. the intense cooperation between DG SANCO and ECHI(M), and the uptake of many results of EU-funded projects on indicators in the ECHI shortlist.

In 2008, this role of the ECHI shortlist was consolidated in the EU Health Strategy "Together for Health: A Strategic Approach for the EU 2008–13". One of the fundamental principles for EC action on public health is that health policy must be based on the best scientific evidence, derived from sound data and information and relevant research. In relation to this value, one of the specific EC actions mentioned in this policy document is the development of a "System of European Community Health Indicators with common mechanisms for the collection of comparable health data at all levels, including a Communication on an exchange of health-related information" 46.

Over recent years, the European Commission has increasingly been using the ECHI shortlist indicators on their website and other products. This started in 2006 with the presentation of data for ECHI Indicators on the DG SANCO website. In 2009, DG SANCO developed an interactive data tool for displaying indicator data (both ECHI Indicators and other policy relevant European indicator sets⁴⁷ see 8.2.). Besides presenting data of ECHI Indicators, there is also general information about ECHI on the DG SANCO website⁴⁸.

The data tool is linked to a public health wiki called HEIDI: Health in Europe: Information and Data Interface. HEIDI is designed to be a comprehensive information

⁴⁶ EU Health Strategy "Together for Health: A Strategic Approach for the EU 2008-13". ec.europa.eu/health-eu/doc/whitepaper_en.pdf.

Website of DG SANCO, The HEIDI Data Tool. ec.europa.eu/health/indicators/indicators/index_en.htm.

Website of DG SANCO, information on ECHI.
<u>ec.europa.eu/health/indicators/echi/index_en.htm.</u>

source for information on public health in the EU. It is to be technically maintained by the European Commission, and public health experts in Europe are expected to contribute to and update the contents of the wiki. A draft version of the wiki has been online for a couple of years. The full version of the wiki was recently launched on May $3^{\rm rd}$ 2012.

The European Commission considers the ECHI shortlist indicators to be the basis for European health reports: "In the framework of the Community Public Health Programmes, health reports are produced using, wherever possible, comparable information on health according to the European Community Health Indicators (ECHI) produced by the ECHI project and now widely used by the European Commission. The objective is to report in the most comparable possible way on the health status of Europeans, as a basis for the European health information and knowledge system". ⁴⁹

A concrete example of a European health report in which ECHI shortlist indicators were used is "Health at a Glance: Europe 2010", which was produced by the OECD and funded by the European Commission⁵⁰. The Commission and OECD intend to make a follow-up of this report in 2012.

8.2. Central data repository, data collection and dissemination

In August 2009 representatives of DG SANCO/A4 and ECHIM met in Berlin to discuss various options for data storage, formats and the presentation tool. During this meeting the group was informed that EUPHIX, as a data presentation application, was no longer favoured by DG SANCO, and that major rearrangements for DG SANCO's EUROPA website were planned. Following the wiki functionalities, the European Commission intended to bundle the rather fragmented Public Health projects outcomes and reports in a system named HEIDI wiki. Furthermore, another data presentation system (ECHI@EC superseded by the HEIDI data tool) was selected by the EC. The task to develop the tool was assigned to DG SANCO Unit A4.

During the development of the data presentation system, ECHIM reviewed the functionalities of the tool and gave advice on the procedure for the automated integration of ECHI data from other international databases. However, as the development process was performed by DG SANCO it was not possible to directly participate in the development and design of the tool.

Website of DG SANCO, European health reports. ec.europa.eu/health/reports/european/programme/index_en.htm.

Health at a Glance: Europe 2010. OECD, European Union. Published by OECD Publishing, 2010. ec.europa.eu/health/reports/european/health_glance_2010_en.htm.

The data tool is designed to present indicator figures, while the HEIDI wiki environment would allow for the presentation of analyses and the related relevant metadata of the ECHI Indicators derived both from available international databases and the recently deduced (E)HIS data of the ECHIM Pilot Data Collection.

In the course of the Joint Action for ECHIM, it became apparent that the proposed central capacity for the collection and analyses of the data, including a central quality control would not be established. This must be seen as a major obstacle regarding the sustainable presentation of ECHI data. These tasks that have been performed by WP5 during the Joint Action for ECHIM are essential for the provision of high quality data. An interim solution has been proposed by ECHIM (Chapter 9) but a final agreement regarding the organisation of the workflow and the necessary resources has not been reached.

8.3. Role of Eurostat in the ECHI work

Right from the start of the ECHI work in 1998, Eurostat has been actively involved in the process of harmonisation and collection of health data for the European Community Health Indicators. In this context the structures for the production of harmonised public health statistics has provided an important basis for the work of ECHIM. Within the ESSnet Health Statistics (the successor of the Partnership Health Statistics) five core groups were established that successfully worked on the principles for the collection of health data in specific areas. The different groups focussed on the 1) Causes of Death statistics, 2) Health Care statistics, 3) Health Interview Surveys, 4) Health and social integration and 5) Diagnosis-specific morbidity statistics. As an overarching advisory group, the Working Group Public Health Statistics was established to oversee the annual work plan and prepare strategic decisions⁵¹.

The collaboration between Eurostat and DG SANCO was organised through the European Health Survey System, taking into account the results from indicator related projects supported under the Public Health Programme. Although Eurostat started the collection of health data in different areas (Health Care Expenditure, Health Care Resources, Health Status and Determinants) already under a previous gentleman's agreement, it became increasingly evident in the course of the project that it needed a specific legal basis for the collection of harmonised health data for the ECHI Indicators.

⁵¹ Eurostar's Activities in Health Statistics. circa.europa.eu/Public/irc/dsis/health/library?l=/statistics_information/background_2006pdf/ EN_1.0_&ca=d.

In 2005, Eurostat provided a preliminary assessment of the data availability connected to the ECHI shortlist. The result of this assessment was used as an important input for the country reports compiled during the ECHIM project (2005–2008).

The close cooperation between ECHI/ECHIM and Eurostat continued during the development of the European Health Interview Survey (EHIS)⁵². One of the main points for the development of EHIS was that this survey should result in valid data for a considerable number of ECHI Indicators, particularly on health status and health determinants. The ECHI and ECHIM projects have been involved in an advisory role in both the development of the EHIS questionnaire for the first round of EHIS (2006–2009) and the revision of the questionnaire to prepare for the second round (planned for 2013–2015). However, ECHI experts only had an advisory role in this process, as decision-making power lay with the Member States as represented in the ESS (European Statistical System). As a result, a consensus was reached, taking into account the needs of the MSs and the needs of ECHIM that led to the adaptation of certain ECHI Indicators following the agreed content of EHIS round II.

Extensive collaboration between Eurostat and ECHIM continued in the course of the Pilot Data Collection. Eurostat (Unit F5) centrally computed the data for 19 ECHI Indicators according to the ECHI definitions and a breakdown based on the microdata sets of 16 Member States that participated in the first round of EHIS (2006–2009). The obtained indicator data were pooled with national data that were gathered during the ECHIM Pilot Data Collection. More information on this is provided in Report III.

In the December 2008, Regulation (EC) 1338/2008 of the European Parliament and of the Council on Community statistics on public health and health and safety at work⁵³ was adopted. Article 1(3) of this Regulation states: "The statistics shall provide data for structural indicators, sustainable development indicators and European Community Health Indicators (ECHI), as well as for the other sets of indicators which it is necessary to develop for the purpose of monitoring Community actions in the fields of public health and health and safety at work." (Regulation (EC) No. 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work). The Regulation provides a legal base for the European Commission to gather data for ECHI Indicators through the ESS. In practice this means that Eurostat will gather these data from the Member States and disseminate the calculated ECHI data via the Eurostat database. The 2008 Regulation is a framework regulation specifying the data and variables to be delivered in

⁵² Eurostat website, EHIS metadata. epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/hlth_ehis_esms.htm.

Figure 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work.
eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX;32008R1338:EN:NOT.

five annexes. For each of the annexes a specific implementing regulation will be adopted. Up to the end of the Joint Action for ECHIM, two regulations were adopted (Causes of deaths, Health and Safety at work) and three were under negotiation in the ESS. It can be expected that the implementing regulation for EHIS (Annex I Health Status and Health Determinants) will be adopted early in 2013.

8.4. Other collaboration and communication

In addition to Eurostat, representatives of both the OECD and WHO Regional Office for Europe have been members of the ECHIM Core Group throughout the project, participating in the development of ECHI shortlist indicators, their definitions and data presentation. The ECHIM Core Group and Extended Core Group meetings have also been a good forum for discussing topical issues concerning e.g. the joint data collections of these three organisations and possible solutions for integrating ECHI methods into them, in the process aimed at creating a common European health information system.

Although some other international organisations did not participate in the ECHIM Core Group, they and some EU projects were consulted on issues concerning the development of specific ECHI Indicators. These comprised the European Centre for Disease Prevention and Control (ECDC) and the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), and some core EU projects, such as EUROCISS, EUBIROD, EUROCHIP, EHLEIS, IDB, EUMUSC.NET and PHIS. They were of considerable help in fine-tuning the metadata for the ECHI shortlist indicators.

ECHIM has been presented and promoted on numerous occasions both at national and international levels. The most prominent have been the European Public Health Association (EUPHA) conferences in 2009 (Łódź), 2010 (Amsterdam) and 2011 (Copenhagen), where ECHIM has organised workshops including several presentations and discussions. Presentations have also been given at DG SANCO and WHO conferences on health information. In addition, ECHIM has been promoted by presentations and posters in meetings and conferences of other EC-funded projects, such as EHES, EUMUSC.NET, I2SARE, EHLEIS and EUROCHIP.

Scientific articles written about the ECHIM work have been published in the European Journal of Public Health⁵⁴ and Eurohealth⁵⁵. In addition, at least two articles are under preparation while this report is being finalised.

Health indicators in Europe: availability and data needs. Kilpeläinen K, Tuomi-Nikula A, Thelen J, Gissler M, Sihvonen A-P, Kramers P, Aromaa A. Eur J Public Health. 2012 Jan 31.

Providing a solid evidence base for policy makers: ECHI initiative. Verschuuren M, Kramers P, Hauksdóttir S, Aromaa A. Eurohealth 16:30. 2010.

After the first eight years of primarily Health Indicator development for DG SANCO, the ECHIM project (2005–2008) concentrated on laying the foundation for the implementation of the ECHI Indicators in European countries. Next, the current Joint Action for ECHIM focussed on implementing the ECHI shortlist in the national health monitoring and reporting systems. Over such a long period, the personnel both in EU Institutions and in the Member States' governments inevitably changed and there was a shift in the strategic health priorities. This was apparent in the variation of the Member States' commitment or ability to implement the ECHI shortlist. These influences were particularly seen in Member States during periods of the debt crisis, with drastic financial reductions affecting both national budgets and those of EU institutions like Eurostat (e.g. sunset clause for EHIS round II).

A lot of effort, resources and expert knowledge has been utilised up to now on building a joint European health indicator system. ECHI has also been broadly accepted as real added value in various expert stakeholders circles (WHO, OECD), and the political and legal arena of the European Commission alike. The implementation of ECHI under the Joint Action has been successful. All these efforts should smoothly lead to the proposed health indicator and health information system. It would be an unexpected and disappointing outcome if ECHI loses its impact on the Commissions' Public Health policies and strategic vision following the end of the Joint Action for ECHIM. This is particularly true since top European experts have worked on ECHI and its implementation for years.

The coexistence of several Health Indicator sets (e.g. EUHI, Regional and Urban HI) displayed at DG SANCO's Public Health website and HEIDI must confuse information seeking visitors, and may gradually weaken the role of ECHI – or any health information emnating from EU. Therefore, a stronger commitment and political—conceptual vision by DG SANCO is recommended to maintain the core health indicators that will comprise ECHI in the future.

9. CONTINUING IMPLEMENTATION AND MAINTAINING ACHIEVEMENTS AT EU LEVEL AND NATIONALLY

Pieter Kramers, Arpo Aromaa, Marieke Verschuuren, Mika Gissler

9.1. How to maintain a health indicator system for the EU?

Health policy and planning need a system for health monitoring. The ultimate perspective underlying the ECHI work since 1998 is having a sustainable health monitoring and reporting system in place. Starting from the current status, a transition period is needed to safeguard what has been accomplished and to develop it into a viable permanent arrangement. This future system should be jointly operated by DG SANCO, Eurostat and the EU Member States, in close collaboration with the WHO and the OECD, to serve health policies and professionals at Member States and EU level.

After the Joint Action for ECHIM ends on 30.6.2012, a plan for the future maintenance and development of the health indicator system is needed. The continuation involves the following core tasks:

- 1. The ECHI indicator system should be maintained and improved.
- The central health indicator database and data presentation tool should be further developed.
- 3. The ECHIM network should be maintained.
- 4. The implementation of data sources and indicators in countries should be continued.
- 5. Collaboration with other international organisations should be enhanced.

In the longer term, health reporting based on the core indicators as well as analysis and interpretation of those health data should become priorities. The core functions of ECHI are presented in the following Chapter in more detail.

9.2. Future European Health Monitoring and Reporting system based on ECHI Indicators

For sustainability there is a shared vision of preferring a sustained way of financing instead of project financing. DG SANCO has restated its views of ECHI being a reference point in EU health monitoring. Its status as the core set for health information in the EU should be made clearer, and political commitment should be strengthened at EU and

national levels. The ECHI(M) work has already stimulated quite a few improvements in harmonised data collection and use of comparable health indicators.

There has also been a call for consolidation and evaluation. The ECHI shortlist should not grow, innovations should be limited, and additional workloads of the Member States in terms of data deliveries should be minimised. Increased cooperation with WHO and OECD is highly recommended.

The Eurostat regulation on statistics on public health and safety at work (1338/2008)⁵⁶ and its implementing regulations are seen as potentially helpful for Member States, which have a major role to play. The national level is where the implementation of ECHIM data work has to be realised, supplemented by solutions for data flow to the EU data repository. If the requirements set by the ECHI shortlist cannot always be met at present, the logical and viable perspective would be to integrate the work on ECHI-defined data with the delivery of data to other international databases such as those of the WHO and the OECD. This should be seen as one coherent investment of resources aimed at constantly improving the availability and cross-national comparability of health data. A long-term scenario should be a single European Health Information System, an umbrella under which the EU, WHO and OECD would work together.

9.3. Tasks of the central health monitoring capacity

The following tasks are included in the core task for the future central health monitoring system.

9.3.1. Maintaining and improving the ECHI shortlist

Updating the ECHI shortlist

The shortlist is intended to remain rather stable. Nevertheless, changing policy needs, advancing scientific insights and new systems for data gathering (e.g. EHES) may be reasons for updating the ECHI shortlist. This updating can imply adding or deleting indicators, but also a reconsideration of whether an indicator should stay in the implementation section (ready for use) or development section (still some problems to be solved) of the ECHI shortlist. The review and updating of the ECHI shortlist should take place at regular intervals – e.g. every three years – and it should follow the ECHIM guidelines.

⁵⁶ Regulation (EC) 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics on public health and health and safety at work. <u>eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008R1338:EN:NOT.</u>

Maintaining the indicator documentation

ECHI indicator metadata (definition, calculation, breakdowns, data sources etc.) have been documented according to a structured format in the ECHI Documentation Sheets. These sheets must be updated when there have been changes in data collection, or when indicators are added. This applies similarly to the list of operational indicators. This is the list specifying all the required subdivisions, most often by sex, age, and socioeconomic status.

Solving remaining problems

By the end of the Joint Action for ECHIM, several indicators will not yet be completely ready for full implementation at national level. These indicators are placed in the "development section" of the ECHI shortlist. There may be remaining questions on the appropriate definition, or problems with the regular availability of data. The actions to solve these problems vary from consulting experts to communicating with data providers on improved methods. Such actions will remain necessary.

Ensuring coherence with other indicator initiatives

Besides ECHIM work, there are other initiatives producing indicators for different purposes. Examples are the indicators developed by the Social Protection Committee, the EU structural indicators, OECD Health Care Quality Indicators, or other indicators identified by Committees at DG SANCO and other Directorate Generals. Whilst the 88 ECHI shortlist indicators are a manageable core set to describe health in general terms, the other indicator sets reflect additional data needs from different, mostly more specific scopes. There is, however, a natural overlap, e.g. in the sense that ECHI has often selected one or two indicators from any specific area for presentation in the shortlist. In these cases, the indicators should be harmonised, and ECHI should utilise development work done in these specified fields.

Utilising EU-funded projects

Collaboration with many DG SANCO funded projects has been very fruitful during the previous ECHI and ECHIM project periods. Some current DG SANCO funded projects and Joint Actions – but also other projects, e.g. those funded by DG Research – are engaged in indicator development and in data collection. ECHI(M) and national experts should assess these for new information on possible improvements of existing indicators, or even on the usefulness of introducing new indicators into the ECHI shortlist. The reverse is just as important. Needs and problems in some ECHI Indicators in the development section may be taken up in annual work programs of DG SANCO and subsequently dealt with in new projects.

9.3.2. Central health indicator database and data presentation tool

Data handling with content expertise

An important task is to fill the central database. This implies the responsibility to initiate and control the continuous process of introducing the appropriate data, preferably from international sources, but sometimes also from national sources. More specifically, this includes the validation of the correct breakdown of data by background variables—such as sex, age and socioeconomic status—according to ECHIM standards and of the inclusion of the required metadata. A quality check of data coming from international sources is not always easy, but a continuous effort is needed to improve the comparability of data, e.g. by checking for unexplained discrepancies. For this, profound knowledge of the various primary sources used (e.g. mortality statistics, population surveys, health care registers) is needed. Notes should be taken on data deficiencies in any respect in order to improve for the next round. Finally, the task includes a check on whether the data are presented correctly in the data presentation tool.

IT development of the database

An equally important task is the IT development of the database and the connected data presentation tool. This includes the design and maintenance of the proper data flows from international databases and national data providers to the central database, as well as the desired functionalities of the data presentations. Here IT expertise, in good and frequent coordination with public health content expertise, is needed.

9.3.3. Supporting the Member States in the implementation of ECHI

Increasing the visibility of the ECHI shortlist

In spite of the importance attached to the ECHI shortlist by DG SANCO and increasingly also the EU Member States and other participating countries, knowledge of its existence and added value should be further promoted throughout EU circles, and especially at national political level. This is a continuous task, as with the others. Actions by DG SANCO and their "ECHI unit" should include an active promotion of ECHI in the direction of other EU initiatives and towards Eurostat work, and regular (also moral) support towards the Member States. At national level, the national contact persons and national implementation teams should continuously involve policy makers and national parties in data collection.

This task implies encouragement and support to the national experts and organisations in developing and improving their data collection. Due to the existing variation in the available health information, work on further harmonisation is needed in order to achieve better comparability. The ECHIM experience⁵⁷ shows that only part of the important data and indicators, as selected by ECHIM, are available in international data sources (Eurostat, OECD, and WHO). For quite a few indicators, the required data that are not present in international databases do exist at national level. For some areas, such as hospital data and especially health interview surveys (HIS), the situation is improving. After the full implementation of the second wave of EHIS a much larger share of ECHI Indicators will be covered by Eurostat. However, the recently emerging uncertain commitment for an appropriate continuation of EHIS after wave II is worrisome. Apart from these areas, there will probably remain a few issues where ECHI has to rely on national data sources. One example is the current lack of possibilities to partition many health data by socioeconomic variables.

When the Eurostat regulation on public health statistics becomes operational, this task may be expected to gradually shift to Eurostat, as the natural partner for the national data deliveries. There will remain a task for ECHI, however, in feeding back to Eurostat and the national Health Information Systems on issues of data improvement and comparability, e.g. on the issue of subdividing health data by socioeconomic background.

9.3.4. Collaboration with international organisations

As stated before, the European Commission and WHO Regional Office for Europe have announced that they intend to work towards a common European Health Information System. The OECD has also joined the collaboration. Already now, a large part of the data for the ECHI central database are derived, besides from Eurostat, from sources such as ECDC, EMCDDA, the WHO Regional Office for Europe, the OECD, IARC, and others. It is clear that, in the maintenance of the ECHI indicator system and the associated data presentation tool, there is a task to act at the forefront of the envisaged further harmonisation of health information in Europe.

A crucial issue is that the perception of ECHI in the Member States is one of increasing data delivery obligations, not only from ECHI but also from the various other international organisations. The above-mentioned coordination aimed at further integration should ultimately lead to a reduction of this workload.

Kilpeläinen K, Aromaa A, the ECHIM Core Group, editors. European health indicators: Development and initial implementation. Final report of the ECHIM project. Publications of the National Public Health Institute B 31/2008.

9.3.5. Regular evaluation of the system meeting the needs of the users

Evaluation should be undertaken on a regular basis to investigate who the users are and whether the ECHI indicator system satisfies them. This includes an assessment of the feedback from users, including policy makers and health professionals, and subsequently the development of views and plans on improvements in the organisation of health monitoring and reporting work.

9.3.6. Implementation work at national level

Much of the success in consolidating ECHI will rely on the implementation work in each of the Member States and other participating countries. An important issue is that the actual work to implement the ECHI shortlist and to integrate it into the existing systems of data delivery to international organisations has to be done by the national health data correspondents themselves. During the current ECHIM project, NITs (National Implementation Teams) have been set up in quite a few participating countries. These NITs made an inventory of the problems encountered in the implementation of ECHI, and the formulated corresponding solutions, unique for each country's specific situation. Often the NITs brought together the various actors involved in international data delivery at national level. The challenge at this level is to develop data sources and data collection using the experience of others, and to develop a perspective of sustained data collection and delivery for ECHI and other international databases in an integrated manner. This should be mirrored by the increasing collaboration, as described in 9.3.4.

9.3.7. Using ECHI Indicators in the European Commission's health reporting products

This task includes ensuring that ECHI information in various EC products has been obtained according to the guidelines and that it is correct. It could also include work on other indicators than the ECHI shortlist that are important for the Commission and that are used for different, more specific purposes. In this case, some of the tasks mentioned in 9.3.1.–9.3.4, would need to be expanded to these adjacent indicator areas.

9.3.8. Analysing and interpreting the data, and assessing their impact on health policy jointly with Member States.

This is the long term goal of all health data collection and also the only way to improve the quality of the data and development of the monitoring system. Therefore, as soon as possible, emphasis should be laid also on this task. DG SANCO has clearly stated that the financing of the ECHI indicator work should shift from projects to permanent financing. Accordingly, the European Commission has already made a start to take on some of the tasks as sustained activities, such as the development of the HEIDI Data Tool and the connected HEIDI health information website, the development of the EHIS harmonised questionnaire, and the piloting of the European Health Examination Survey (EHES). In the more formal sense, the regulation on statistics on public health and safety at work (1338/2008) states that EU statistics shall provide data for the ECHI Indicators. This regulation has been accepted and the implementation regulations for EHIS are currently under development at Eurostat.

The types of expertise needed for adequately performing the tasks should be acknowledged. First of all, it is essential to have a concise core team of first-grade public health professionals in place, in combination with up-to-date skills in IT and data handling. These people need to work closely together and communicate informally, and they should be firmly anchored in a wider European expert network. Only then an "ECHI unit" can gain the level of professional authority needed to act as a credible partner in discussions with experts around Europe, and it can thus grow to a status where it is respected and used by the community of European public health professionals and policy makers. The types of expertise needed in the team include at least public health, health services, epidemiology, health statistics, and informatics. With the right people and the right setting, the critical mass in terms of the number of people for the core team may be fairly small.

The ECHIM long-term vision of the final sustainable situation is a permanent health monitoring and reporting (HMR) capacity, to carry out the tasks listed above. As outlined earlier by Aromaa⁵⁸, this could be shaped as one central unit or as a "virtual capacity", consisting of persons placed centrally plus experts located in national public health institutes. A central agency for the overall function of health monitoring and reporting would by itself seem reasonable, since such agencies do exist for sub-areas of public health, e.g. ECDC and EMCDDA. This may not be realised within the next few years, however.

To place an HMR capacity entirely within DG SANCO would perhaps not be the optimal choice, in view of the specialised professional character of the HMR work and DG SANCO's primary function as a policy unit; this view has also been expressed by DG SANCO. A logical solution could be to host the capacity within an existing agency. This could be ECDC, which has the advantage of offering a professional environment that

Aromaa A, 1998. Health Observation and Health Reporting in Europe. Rev. Épidémiol Santé Publique, 46(6) (December 1998): 481–490.

includes the necessary infrastructure. The ECDC's current mandate holds the option of broadening its activities into areas such as non-communicable diseases. However, having a small general health reporting unit within a much larger communicable disease unit might lead to problems of balance and it might be necessary to "ring fence" resources in this area.

If none of these options would guarantee an adequate professional environment for a central HMR capacity, the solution has to be sought in the collaboration with national public health institutes, or specialised university departments. Perhaps the model of the WHO Collaborating Centres can be used. In all cases there should be a close connection with Eurostat, where the technical data handling skills are located.

The tasks for this HMR capacity have been described above. If the collaboration with the WHO and OECD on harmonising health information systems proceeds and develops in the future, it is this HMR unit that should represent the SANCO side, together with Eurostat. Also, DG SANCO has initiated the HEIDI Wiki system, which needs professional input in editing, but also the expertise required for ECHI Indicators. All of these developments could find a natural environment in the HMR capacity. In any of these organisational options, it should be possible to perform the ECHI tasks with some ten experts, provided they are of the right expertise and professional level. They also should be able to flexibly employ other experts for limited tasks. Such a small size seems optimal for professional critical mass, efficiency by small overheads, flexibility, and openness towards expert circles around Europe.

Finally, the ideal sustainable situation implies having a permanent structure in place at national level, coordinating all data deliveries from the country to international organisations, and serving as an active counterpart at national level for the central HMR capacity, along with the WHO and OECD.

9.5. The need for interim arrangements

The ideal structure is unlikely to be in place by mid-2012. Therefore, arrangements should be made for an interim period of several years, and for this short term we may rather speak of an "ECHI unit", as opposed to the HMR capacity to emphasise the more restricted scope. We assume that in one way or another, the needed expertise will be realised, since otherwise the adequate maintenance of ECHI will not be possible.

Since DG SANCO has stated that it might not be ideal to place all of the expertise functions directly within its C2 unit due to their specialised professional character, it may be preferable to bring together expertise from different actors under a central

"umbrella" as the ECHI unit. In this unit, a combination of policy oriented input from DG SANCO and the professional expertise from a consortium of national public health institutes or specialised university departments is needed. For continuity it would be beneficial to have at least some of the current ECHIM partner institutes involved in this work, although the structure might differ from the present one. Also Eurostat needs to be included. We note that Eurostat has been actively involved in the ECHI(M) process from the start, and for a major part of ECHI shortlist indicators, Eurostat data are being used. In the development of EHIS there is a close collaboration between ECHIM and Eurostat, which has to be continued. During the coming years, the role of Eurostat in the ECHI data collection will potentially be formalised through the implementation of the Regulation on statistics for public health and health and safety at work.

We envisage the following structure:

- ECHI unit as the core team, consisting of a co-ordinator at DG SANCO C2, two
 or three IT experts at DG SANCO A4, one contact person at Eurostat, and three
 public health professionals in national institutes. They together carry out the tasks
 described in Chapter 9.3.
- ECHI advisory group of about eight national HMR specialists and representatives
 from Eurostat, the WHO and the OECD, for regular consultation by email,
 meeting e.g. every six months, to discuss the main issues. This group would be the
 steering group, resembling the current ECHIM Core Group.
- A body where all participating countries are represented. This body has a broader scope than ECHI, but it is the place where general issues and progress on ECHI and health monitoring are discussed and commented on. At present, the Expert Group for Health Information (EGHI) is the natural place for this, but it should then be strengthened to the position its predecessors held in the past.
- Network of national contact persons for the implementation. They coordinate the
 work within each country. They keep contact with the core team on their progress,
 and with their national representatives in the EGHI. Note that the gathering,
 production, analyses and reporting of national health data is a within-country
 task often shared by many actors in a complex manner. Therefore the national
 contact persons can only function through good contacts with the NITs (National
 Implementation Teams), and other experts in charge of national data.

This solution results in a "virtual public health monitoring capacity", involving the triangle: national experts, DG SANCO and Eurostat. The ECHI unit should also think of improved ways to organise and host the work in the future. If for the more "final" solution, the agency option is not realised, this "virtual" capacity may need to persist for a longer time.

In regard to financing, it is difficult for any affiliated expert group to be fully aware of the various formal possibilities and constraints of financing the sustained work by the Commission. ECHIM is aware of the view as stated by DG SANCO that the current Health Programme cannot finance permanent or frequently recurring costs for the same activity. This reflects the general and pressing problems that are encountered repeatedly when DG SANCO funded projects produce results that all involved parties subsequently would want to become sustainable. In the ECHIM case, with the arrangements as described earlier, DG SANCO and Eurostat could finance parts of the virtual capacity from their existing budgets, which they already do to some extent. For the necessary expert input from national public health institutes in the ECHI unit, a way needs to be found to generate some dedicated funding. Here it is important that there is no or minimal co-funding required from the participating countries, since it is basically sustainable EC work, also supported by formal Regulations. A direct agreement with a consortium could be a viable option. As this is envisaged to be a transition situation, the financing could be arranged for a limited period, but linked to a view on a sustained solution for the future.

As to the financing of Member State activities linked rather to national data work than to the ECHI unit, the experience from the current Joint Action for ECHIM suggests that it would be desirable to have some financial support to Member States for the development of incomplete national information systems, especially in these days of economic problems and cutbacks. This could possibly be arranged via structural funds. On the other hand, it is logical as a long-term perspective that Member States and other participating countries devote structural resources of their own to the sustained delivery of data according to ECHI, as an integrated part of the data flow to all international organisations that has been current practice for years. In some countries, this is already happening.

Ultimately, the continued availability of good data that are comparable in time and between countries is, first of all, of interest not only to the EU but above all to the individual countries, in support of improved evidence-based health policies.

9.6. A proposal to ensure minimum functions

Perspectives for a DG SANCO led maintenance of ECHI work are unclear. Before taking up the ideas proposed by this final report, DG SANCO has decided to first carry out an independent evaluation of the status and use of ECHI Indicators in the countries⁵⁹. The exact terms of reference of this evaluation still remain unclear. Even in the case of a positive outcome of the evaluation, this will leave a gap of at least one

Official Journal of the EU, 8.12.2011, page 30.

year after the end of the Joint Action for ECHIM. In other words, there is at present no perspective for central coordination or financing of continued work on the ECHI indicator system. The only thing that will probably be continued at central EU level is the HEIDI Data Tool accommodating data connected to the ECHI shortlist, but this is primarily a technical application which may not work well without content-oriented guidance.

At the same time, quite a few countries have started to incorporate ECHI Indicators in their national data collection and/or reporting activities. They see their value and intend to continue that. For this, a minimal level of central coordination remains necessary. If DG SANCO is not taking this on board, there has to be other ways to bridge the gap. This could be the creation of an informal network of the main stakeholders, i.e. the national counterparts.

The basic idea for an informal ECHIM network is a communication network in which all national contact persons, who have a central position in health data collection and dissemination, including deliveries to international databases, can participate. These contact persons could be the same as the current representatives in the ECHIM Extended Core Group. A few countries could volunteer as a team of co-ordinators with divided tasks. Evidently, the core tasks described earlier are too much for an informal network as envisaged here. Still, carrying out the following five activities could be feasible, and at the same time these would help in further promoting the ECHI work at national level, and help bridging the gap until a sustained solution comes in place.

The five tasks could include:

1. Communication between the participating countries: Collecting an update on the status and progress of ECHI-related work in all countries, and circulating this to all, preferably every six months (request for update will be circulated by a co-ordinator, resulting compilation disseminated by a co-ordinator). Advice to national counterparts on the implementation process.

2. Other communication tasks:

a) with Eurostat: on changes in their data collection and presentation; reminding them to keep ECHI in mind when making changes, and to use ECHI as a guidance for that (Eurostat contact person to be assigned; co-ordinator keeps regular track of Eurostat changes; national experts inform co-ordinator on their observations; Eurostat contact person keeps ECHI co-ordinator informed); b) with the HEIDI Data Tool to monitor their changes, updates and improvements (regular check of tool by co-ordinator, DG SANCO C2 informing co-ordinator of changes; if necessary reaction by co-ordinator to HEIDI Data Tool people);

- c) with the WHO on their activities towards further integration of joint European health data collections (mutual information; discussion based on ECHIM frame and history).
- 3. Compiling a list of issues that should be tackled as soon as a central facility and funds would become available. This could derive from problems reported by the national counterparts with e.g. specific data collections, or from scientific and policy related developments (no active search, rather a passive documentation of issues that pass by).
- 4. Keeping track of any developments that may lead to a better future for a maintained ECHI, for example, the ongoing evaluation by SANCO, or the possible extension of the ECDC scope.
- 5. PR: making people available for invited presentations; (initiatives mainly at national level).

It is important that the status of the network remains informal, and is not linked to formal government positions to allow for the maximum flexibility. This should be possible since the tasks are basically restricted to exchanging information. Yet, by these communication efforts, the network could prevent ECHI know-how and experience from being lost and could continue to promote the exchange of best practices. The final rationale and benefit for the participating countries would be as they were: improving cross-national comparability of data and indicators for better health policies.

Those countries which are actually working with ECHI Indicators, integrated in their national data collection and/or reporting system, would have people and a budget assigned to that. Ideally, the work with ECHI would be integrated in the system of all international data deliveries by the WHO, OECD, etc. With only a very small share of such national budgets, a communicating network could be maintained. Of course, the countries that do not yet work with ECHI should all be included, but the majority of activities could logically be done, for the time being, by the most active participating countries. We assume that some co-ordinating role by 2–3 countries could be agreed.

It is not foreseen to arrange meetings of the network without external funding. However, the EUPHA section on Public Health Monitoring and Reporting could host the network. This section meets every year at the annual European Public Health conferences, it can have issues on ECHI on its agenda, and these meetings are open to all conference participants. In addition, the section's wiki site could serve as a forum for exchange and discussion.

10. RECOMMENDATIONS

ECHIM Core Group

After the end of the Joint Action for ECHIM, the ECHI health indicator system has to be maintained and developed further. Over time, uniform health reporting, analysis and interpretation of health data should become priorities in all European countries.

The following six tasks are the most important recommendations of the Joint Action for ECHIM for the European Commission to ensure future ECHI Indicator work, when moving from a project-based approach to a sustainably funded permanent structure. These are described in more detail in Chapter 9 of this report as well as in Report II.

1. Ensure continuity through the central role of health monitoring and reporting in the new Health Programme

2. Maintain and improve the ECHI indicator system

Developments in the data sources used for ECHI that have consequences for the ECHI Documentation Sheets and operational indicators should be followed and processed. In particular EHIS, EHES, Eurostat Morbidity Statistics and the OECD Health Care Quality Indicators project should be closely followed. The ECHI shortlist should be regularly updated, according to emerging needs, e.g. once every three years.

3. Develop the central health indicator database and data presentation tool

Make the ECHI Indicator Documentation Sheets and remarks on comparability accessible on the internet in a sustainable way, first in the HEIDI Data Tool and in the long run in a central data repository, which is to be developed. Evaluate the usefulness and added value of the remarks on comparability and, based on the outcomes of this evaluation, make a plan for their further development and maintenance.

4. Maintain the ECHIM network

Create and sustain a central "ECHI Unit", which serves as the central secretariat for the work needed on the indicator documentation. Maintain the existing ECHI expert network for providing overall guidance. Find efficient ways to keep the network functional, e.g. link it closely with the Expert Group on Health Information (EGHI).

An interim network of ECHIM experts will be co-ordinated by the RIVM also after the end of the Joint Action for ECHIM, while awaiting a more sustained structure. However, due to its unofficial nature, it cannot take on any of the tasks listed. The ECHIM website (www.echim.org) will be maintained, and the ECHIM Products website will be merged to it. Regular updating of the website will remain uncertain and should be ensured.

Continue the development and implementation of data sources and indicators in Member States

Stimulate research and development work for indicator topics in the development and work-in progress sections, through placing the indicator topics concerned in the annual Work Programmes of the Health Programmes (DG SANCO) and in the Framework Programmes (DG Research). Work closely together with Eurostat, the WHO Regional Office for Europe and the OECD in order to stimulate the uptake of ECHI Indicators in regular data collections and international statistical systems. Political commitment and support is necessary both at national level and at EU level for a continuous and sustainable implementation process.

6. Enhance collaboration with other international organisations

Good connections between the ECHI Unit and other important health information stakeholders in Europe and people working on the implementation in the participating countries should be maintained and improved. In particular, it is important to seek coherence with the development of a common European Health Information system by the European Commission, the WHO Regional Office for Europe and the OECD.

ANNEXES

Annex 1. The letter to promote Joint Action for ECHIM; sent out by DG SANCO to national health attachés in 2011.

Annex 2. ECHIM Press Release, published in Ljubljana in September 2009

Annex 3. ECHIM Press Release, published in Rome in September 2011

Annex 4. ECHIM promotional leaflet, published in 2010

Annex 5. Supplementary ECHIM brochure, published in 2010

Annex 6. Country Specific Section

The letter to promote Joint Action for ECHIM; sent out by DG SANCO to national health attachés in 2011.



EUROPEAN COMMISSION

HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Public Health and Risk Assessment

Director

Luxembourg, C2/AR/FP/XX/xx Mr/Ms/Dr XXX

XXX

Dear Mr/Ms/Dr XXX,

Subject: Joint Action on European Community Health Indicators Monitoring (ECHIM)

In 2007 the Commission requested all Member States to participate in a Joint Action for ECHIM – European Community Health Indicators and Monitoring. This Joint Action started in January 2009, under Finnish leadership. I am writing to thank you for your participation and support so far, and to request your assistance in ensuring that we continue to make progress on this important project.

The current Joint Action is the fourth project phase of a long-term European Commission initiative, which began in 1998, aimed at developing, together with all the Member States, a European health monitoring system. The aim of this Joint Action is to finalise the ECHI shortlist and to support its implementation at Member State and EU level.

The ECHI shortlist is a carefully compiled, comprehensive set of 88 health indicators aimed at providing an overall basis of comparable European data for health policy both at Member State and European level. Furthering harmonisation of underlying data collection processes will therefore also be beneficial for both the Member States and the Commission.

The ECHI shortlist makes as much use as possible of existing indicators from sustainable international databases, as maintained by the Commission (Eurostat), WHO and OECD. More information on the status of data availability at Member State and EU level is provided in the Annex attached to this letter. Eurostat, being the EU statistical office, is ECHIM's main data provider. Currently public health statistics are being provided to Eurostat via the European Statistical System on the basis of gentlemen's agreements. In the coming years however, Regulation (EC) No 1338/2008 on Community statistics on public health and health and safety at work, through the development of several Implementing Regulations, will form the legal basis for the collection of data for the ECHI shortlist and other EU indicator sets. Regulation to support the implementation of the European Health Interview Survey (EHIS) in 2014 will be a key component of the ECHIM process.

Commission européenne, 2920 Luxembourg, LUXEMBOURG - Tel. +352 43011 Office: HTC 00/XXX - Tel. direct line +352 4301-XXXXX - Fax +352 4301-31050.

I attach much significance to the ECHIM Joint Action as a platform to improve the availability of comparable public health information throughout Europe, and as an initiative to pave the way for the forthcoming Eurostat regulation. I would therefore like to ask you to keep supporting the implementation process in your country. I realise that in these times of financial restrictions your possibilities may be limited, and that changes take time, but I also stress that the work is of primary value to the Member States themselves. The Joint Action project team is of course available to give you guidance and advice regarding what kind of implementation activities would be most suitable for your country given your specific national situation.

In my view, ECHI indicators may play a fundamental role in monitoring, evaluating and therefore shaping health policies at national and local level, as the "Dare to compare" report issued by the National Institute for Public Health and the Environment in the Netherlands probably shows. Is your administration also planning to utilise the ECHI indicators as a support to policy making, and if so how do you think they could best fulfil your needs? If you have no plans in this direction, I would remain very interested in receiving your advice on how to improve this tool to guarantee the highest added value for your political action.

Yours sincerely,

Andrzej Ryś

Enclosure: Status of data availability for the ECHI shortlist indicators at

Member State and EU level

c.c.: Ms Jacquemyn, Assistant SANCO/C Mr Schreck, Head of Unit SANCO/C/2 Ms Mattila, Deputy Head of Unit SANCO/C/2

ECHIM Press Release, published in Ljubljana in September 2009

INŜTITUT ZA VAROVANJE ZDRAVJA REPUBLIKE SLOVENIJE



NATIONAL INSTITUTE OF PUBLIC HEALTH

Press Release

EUROPEAN JOINT ACTION FOR ECHIM

Programme to Develop and Implement Health Indicators in the EU

Reliable health indicators are vital for forming policies and
planning public health related measures

Ljubljana, September 29 2009 – Joint Action for ECHIM (European Community Health Indicators and Monitoring) programme meeting was held in Ljubljana on September 29 and 30, 2009. The project aims to develop comparable indicators for the health of European citizens. Its aim is forming a comprehensive health information and knowledge system to help support public health measures and national strategies aimed at developing a high quality, generally accessible and sustainable health care system.

"At the meeting, we will discuss the implementation of the health indicator set formed in 2008 in member countries' respective systems and the enhancement of public health data availability," said **Polonca Truden-Dobrin, representative of the National Institute of Public Health (IPH)**, who leads the Slovenian part supported by the Slovenian Ministry of Health, before the meeting.

27 countries participate in the project

These include 24 EU Member States plus Iceland, Norway and Moldova. Slovenia is a part of the project Core Group, along with Finland, Germany, Netherlands, Italy, Lithuania, Belgium, Czech Republic, Estonia, Greece, Ireland, Spain, Sweden, United Kingdom and the World Health Organization (WHO). The meeting was attended by the representatives of the latter.

ANNEX 2

Comparable data needed

"European countries already have a lot of health and health care data, but there is need for

more. In addition, the data are not comparable between countries. And so the foundations to

form a common European health policy and health policies in individual EU Member States

are weak ..." stated prof. Arpo Aromaa, ECHIM project leader.

Slovenia near European average in terms of data availability

ECHIM research shows that data availability in Slovenia is better than the European average

and a detailed data source analysis reveals that it is near the average. Data from routine data

collections are available in Slovenia and the EHIS survey (based on health and health care

interviews) was already conducted. "We will need to focus most of our efforts on monitoring

health care, health services and measures addressing promotion of health. Data from

methodologically appropriate data base sources will need to be made available. Once the e-

health projects are implemented, we expect to see further improvements in terms of data

quality and timeliness in routine data collection in the health care system" added Polonca

Truden-Dobrin.

Additional information:

Urška Kaloper

Public Relations Office. Institute of Public Health RS

Tel: 01/2441 479

E-mail: urska.kaloper@ivz-rs.si

129

ECHIM Press Release, published in Rome in September 2011



Socioeconomic differences in health are substantial across Europe

Mortality is known to vary with socioeconomic level described by education, occupation and income. However, in Europe data about morbidity and health determinants are scarce. The lower the socioeconomic level the larger are the population group's morbidity rates. The first results of the ECHIM health monitoring project have now been analysed. For example, obesity, diabetes and depression are more common among low-skilled persons than among highly educated persons in Belgium, France, Germany, Italy and Austria.

It is not yet to say whether different diseases are more rampant in one European country that another. The data previously collected from different countries have been generated by varying methods and at different time, which complicates comparisons. Also there are no simple explanations for lower prevalence of asthma, chronic pulmonary disease or hypertension, which varied in Estonia, France and Italy, which can only be obtained by more in depth analyses.

"However, the variation by socioeconomic group was large and consistent. Lower socioeconomic level was also associated with higher disease prevalence in all countries", emphasizes Professor Arpo Aromaa, the leader of ECHIM project. Since lower educational levels are more common among older people it is important to take into account socioeconomic level, age and cohort effect.

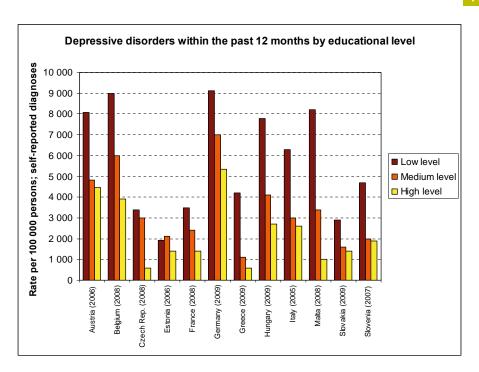
Still, according to Aromaa, it is quite evident that in Europe, education, for example is more important in determining the number of years in good health than our nationality or the country we live in. "First interpretation is that health in all countries would be greatly improved by reducing the socioeconomic variation in the common determinants of chronic diseases."

ECHIM, The Joint Action for Health Information and Monitoring, has defined 88 key indicators to compare health in various European countries. Using these indicators, ECHIM has now produced the first ever comparative findings based on the collation of European Health Interview Survey data together with a number of EU Member States. The intention is to proceed with the collection of comparative data and in depth analyses.

Please visit the ECHIM website (<u>www.echim.org</u>) to keep informed!

For further information, please contact:

Arpo Aromaa Professor emeritus, Leader of ECHIM arpo.aromaa(at)fimnet.fi Tel: +358-9-47448770 National Institute for Health and Welfare Helsinki, Finland Nils Kirsch kirschn(at)rki.de, tel: +49-3018-7543771 Jürgen Thelen thelenj(at)rki.de, tel: +49-3018-7543115 Robert Koch Institute Berlin, Germany



ECHIM promotional leaflet, published in 2010



Benefits of accurate health indicators

Health policy and planning must be based on reliable evidence, which acts to inform health promotion, prevention and care. Measures can thus be targeted and their impact assessed correctly. Time trends allow for an assessment of policy measures and identifying future needs.

To implement evidence-based measures requires an effective health information and monitoring system that provides the key health information around the across countries if they are to support planning and policy, both at the EU level and in individual Member States. Any differences seen in the international, national and population group comparisons can provide the initiative for improving health systems.

High quality health information serves EU populations by directing policy and services toward fulfilling health needs. The beneficiaries of such a system include officials, administrators and professionals responsible for public health. Comparative health information is of great practical use also for politicians, journalists, teachers, students, researchers, and the general population.

Health information is a driving force towards better health as well as equity in health and health care provision, since it reveals both the needs and inequalities that must be tackled together.

ECHIM in a nutshell

European Community Health Indicators and Monitoring (ECHIM) aims to consolidate and expand ECHI Indicators towards a sustainable European health information system. Its main goal is to help Member States implement and then to collect and disseminate comparable health data based on the ECHI shortlist of 88 key

The ECHIM Core Group consists of 35 Member State experts; it facilitates liaison between EU (DG Sanco). Eurostat and the WHO Regional Office for Europe. ECHIM has contact persons in over 30 European countries.

At present, ECHIM co-ordinates implementation of ECHI Indicators in Member States, supporting this action through expert advice and guidance. ECHIM also collaborates with DG Sanco and Eurostat in order to support the implementation of health data and relevant health indicators in all EU countries.

The practical goal is to implement an ongoing process of indicator installation in Member States, which will result in improved health data and data flow to establish comparable health indicators across Europe. A further goal is to earry out the first joint analyses and reports on the data for the established ECHI shortlist indicators.

Through Joint Action for ECHIM, the long-term theoretical expert work on indicators initiated in 1998 can now be implemented. Financing for joint actions is provided by the European Commission and forms the basis for a common effort by

Centros

National Institute for Health and Welfare (THL), Helsinki National Institute for Public Health and the Environment (RIVM), Bilthoven Robert Koch-Institute (RKI), Berlin Public Health Institute (ISS), Rome Institute of Hygiene (HJ), Villnius

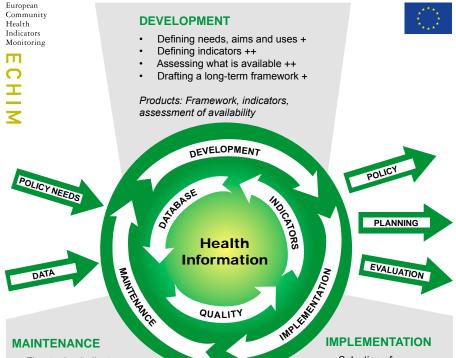
More Information

www.echim.org | www.healthindicators.eu | echim@thl.ff



CREATING HEALTH INFORMATION

(Autumn 2010: ++ done; + ongoing; ± to be carried out)



MAINTENANCE

- Fine-tuning indicators and metadata +
- Gathering new data to MS and EU databases +
- Analyses, interpretations, dissemination ±
- Establishing of infra- structures and core capacity for health monitoring ±
- Data, interpretations and reports being used +
- Evidence based health policy to become a rule ±

Products: Up-to-date health indicators, core capacity for health monitoring, EUwide working system of data gathering, analysis, interpretation and dissemination, evidence based health policy

- Selection of indicators ++
- Definition of indicators and metadata ++
- Quality assurance +
- Databases and presentation interfaces (EU and MS level) +
- Gathering data from existing databases ++
- Gathering data from MS and other new sources +
- Analysis, interpretation and dissemination +
- Assisting MSs and Commission in implementation +

Products: Set of indicators, definitions of indicators, structures in MSs, systems for data flow, analysis presentation and dissemination

Country Specific Section

In this annex an overview of the implementation status of the ECHI Indicators is presented in order to create a general view of the participating countries, as separate entities as well as in European context. The country specific overviews describe the progress since the end of the previous ECHIM project (2005–2008) in the participating countries. They are thus also intended as a direct continuation of the Country Specific Section presented in the Annex 4 of the Final Report of the previous ECHIM project¹. The structure is standardised for all countries, which are assorted in alphabetical order. In this introduction the structure is looked through question by question.

The country specific overviews start with the section "National Implementation Team" in which a description of the composition of the National Implementation Team (NIT; i.e. the institutes and organisations represented in the NIT) and a short overview of the main topics discussed in the NIT meetings is presented. The NIT is the structure that is responsible for drafting the Implementation Plan and other required implementation documents, and is in charge of the whole implementation process of ECHI Indicators in the country in question.

In the section "Progress made since 2008" an overview of what has happened since the end of the previous phase of the ECHIM project is presented. The countries were asked to list what has happened during the Joint Action for ECHIM ("Most important improvements"), how things are currently implementation wise ("Current shortcomings and hindrances" and "Actions currently ongoing") and to speculate on what they should do next ("Actions planned next").

The last item in this section asks the country experts themselves to rate how much the prerequisites for implementation have changed in their country since 2008 (i.e. since the publication of the Final Report of the previous ECHIM project) on a five-class scale, whether they have improved "a lot", "moderately" or "a little", or has there been "no change", or have they even "degenerated". This is the only item in the questionnaire where predetermined set of answer categories was given; all other questions were openended.

The next two sections, "Data availability" and "ECHI implementation status in June 2012", describe the current overall status of the implementation of the ECHI Indicators in the participating countries.

Section "Data availability" describes participation in the European wide data collections that are, from the view point of implementation of the ECHI Indicators, the most important ones. Participation in four kinds of data collections is included:

Kilpeläinen K, Aromaa A, the ECHIM Core Group, editors. European health indicators: Development and initial implementation. Final report of the ECHIM project. Publications of the National Public Health Institute B 31/2008.

- Whether or not the country participated in the first round of European Heath Interview Survey (EHIS) between 2006–2009. EHIS is the preferred data source for many of the health status and health determinant indicators of the ECHI shortlist.
- Whether or not the country participated in the pilot project of the European Heath Interview Survey (EHES) between 2010–2012. The EHES Pilot included countries which are planning to conduct their first national HES. In addition, also other countries have indicated their willingness to conduct a standardised EHES in the future. Thus also whether the country has a plan to conduct the EHES in the near future or not, as well as the year when it is planned to be done, are reported.
- The last item is this section is about the participation in the ECHIM Pilot Data Collection in 2010–2011. Its major aim was to obtain comparable (HIS and/or register based) data for those ECHI shortlist indicators that were at the time not available or not comparable in international databases. To get HIS based data from those participating countries that did not implement EHIS fully or not at all, was the other aim of the ECHIM Pilot Data Collection. The data collection included 20 ECHI shortlist indicators.

The section "ECHI implementation status in June 2012" describes how well the countries have succeeded in the implementation of the ECHI Indicators by the end of the Joint Action for ECHIM – the overall status of the implementation process is presented for all Joint Action countries.

Six stages of implementation of the ECHI Indicators in the national level are distinguished. These are not mutually exclusive stages, but they can be listed from the "worst" to the "best" stage. The stages are categorised as:

- 1. No actions for ECHI implementation took place in the country.
- 2. Only some of the steps and actions recommended by the Joint Action for ECHIM have been taken (e.g. National Implementation Team, Implementation plan, Communication Survey, Indicator Data Availability Sheet, and Pilot Data Collection; for a description of these actions and documents, see chapter 5).
- 3. A national ECHIM website exists, preferably including also links to the ECHIM website and the HEIDI Data Tool.
- 4. ECHI Indicators are explicitly mentioned in the most important national health data presentation websites (of public health institute, statistics institute, ministry of health etc.), in addition to the national ECHIM website.
- 5. The use of ECHI Indicators in the national health monitoring and reporting systems is stated in the plans for future actions of public health institute, ministry of health's strategies, policy agendas etc.

- 6. ECHI Indicators are incorporated into national health information systems in one or several of following forms:
 - a) ECHI Indicators have been included in national health indicator databases or datasets.
 - b) ECHI Indicators have been used in public health reports and/or other publications.
 - c) ECHI Indicators have been included in public health monitoring and reporting systems in other forms.

The topic of the section "Lessons learned, conclusions and recommendations" is the evaluation of the Joint Action for ECHIM. The participating countries were given the opportunity to express how they experienced working with ECHIM and the ECHIM secretariats ("How well has ECHIM met the expectations of your country?"), and with DG SANCO on the other hand ("How well has DG SANCO met the expectations of your country?"), as well as what could have been done better and how the implementation process could have been improved and supported better by ECHIM and/or DG SANCO.

The countries were also asked to evaluate how, in the national level, the functioning of the National Implementation Team could have been improved ("How could the functioning of the NIT have been improved?").

The last section, "Future prospects after the Joint Action for ECHIM", sets the eye to the future. Here the countries were asked to contemplate how they see the future prospects after the Joint Action for ECHIM ends.

The country specific overviews were written by the national country experts (in most cases with the help of other national experts, of course) together with the ECHIM Helsinki secretariat. The country experts also checked and approved the overview of their own country before publishing. In total, the Country Specific Section contains an overview of 31 countries. Some countries' information is missing for various reasons.

AUSTRIA

National Implementation Team

There is no formal NIT in Austria, but there is a good and regular communication between Ministry of Health and Statistics Austria (STAT). Regular Jour Fix of STAT and Ministry of Health acted as the NIT. NIT meetings were held once a quarter (regular Jour Fix of STAT and Ministry of Health), ECHI was always one point on the agenda, although the meetings were mostly about implementation on the website of STAT.

Progress made since 2008

Most important improvements: The calculation and presentation of ECHI Indicators on the website of STAT.

Current shortcomings and hindrances: None

Actions planned next: An update of the ECHI Indicators.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A lot.

Data availability

EHIS first round: Done. EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. Data for 58 ECHI Indicators are available on the website of Statistics Austria: www.statistik.at/web_en/statistics/health/ -> European Community Health Indicators (ECHI).

- 4) ECHI Indicators are explicitly mentioned in the most important national health data presentation websites. On the website of Statistics Austria: www.statistik.at/web_de/statistiken/gesundheit/ -> Europäische Gesundheitsindikatoren (ECHI).
- *3) National ECHIM website:* www.statistik.at/web_de/statistiken/gesundheit/ -> Europäische Gesundheitsindikatoren (ECHI).

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? The Documentation Sheets were very helpful for calculating the indicators and are necessary for international harmonisation. It would be good to have Documentation Sheets for all indicators.

How could the functioning of the NIT have been improved? There is no formal national implementation team in Austria but there is a good communication between Ministry of Health and Statistics Austria. There was a regular exchange of information on ECHIM.

Future prospects after the Joint Action for ECHIM

Not discussed yet.

BELGIUM

National Implementation Team

A "focal point for the data collection on national health statistics" has been set up, including representatives of most of the institutions gathering data and supporting data collection.

Topics of the meetings have been the availability or comparability of the data, reply to the request for health indicators originating from WHO, OECD and Eurostat, and follow up of the implementation progress.

Progress made since 2008

Most important improvements: Setting up of a national cancer registry. Important progress has been made also in reducing the large delay in vital statistics.

Current shortcomings and hindrances: Mental health hospital discharge statistics.

Actions currently ongoing: Trying to improve the utilisation of ECHI Indicators by the different health authorities at federal and regional level; e.g. choice of several ECHI Indicators for the "Project on performance of the Belgian health system".

Actions planned next: Giving more visibility to ECHI Indicators by a link to ECHIM and HEIDI websites, and putting the results of ECHI Indicators in the future Health Indicators portal of the Scientific Institute of Public Health.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

5) The use of the ECHI Indicators in national health monitoring and reporting systems is stated in the plans for future actions. Several ECHI Indicators will be included in the "Project on performance of the Belgian health system 1", which should help to monitor the health system performance in Belgium (https://kce.fgov.be/publication/report/a-first-step-towards-measuring-the-performance-of-the-belgian-healthcare-system).

In addition, some ECHI Indicators are already used in regional public health report and in the report of the Health interview survey. But currently, they are not specifically mentioned as "ECHI Indicators".

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? It was an opportunity to revitalise the discussion / coordination on the health indicators with the different health authorities at federal and regional level.

How could the functioning of the NIT have been improved? The NIT is actually the focal point coordinating the replies to the international organisations as far as health indicators are concerned. The task related to the ECHI has thus been added to the mandate of this group.

Future prospects after the Joint Action for ECHIM

Presentation of the results of all available ECHI Indicators on the portal of the Scientific Institute of Public Health.

BULGARIA

National Implementation Team

NIT consists of two experts (health statistics and IT) at the National Center for Public Health and Analyses. In June 2011 the National Centre of Health Information was merged with the National centre of Public Health Promotion and the new structure was named the National Centre of Public Health and Analyses.

Progress made since 2008

Current shortcomings and hindrances: Low funding of normal activities.

Actions currently ongoing: MoH project of National Health Information System.

Actions planned next: Building of Mental Health registry (2012). Building of 6 other Health registries (COPD, Diabetes, AMI etc.) beginning next year.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made.

Lessons learned, conclusions and recommendations

How well has DG SANCO met the expectations of your country? What could have been done better? DG SANCO could have stressed the importance of the project to the Ministry of Health (although there have been many changes in the personnel of the Ministry, so that might not have had a big impact on the situation).

How could the functioning of the NIT have been improved? The funding of our Center (by the Ministry) is very low and we have lack of personnel.

Future prospects after the Joint Action for ECHIM

None specified.

CROATIA

National Implementation Team

Contact person is nominated, but no National Implementation Team has been set up. Croatia was in no position to join Joint Action in any other way than as collaborative partner, meaning that no additional resources have been devoted to the activities at the national level.

Progress made since 2008

Current shortcomings and hindrances: No HIS nor HES has been performed yet in Croatia.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? No change.

Data availability

EHIS first round: Not done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made.

Lessons learned, conclusions and recommendations

None specified.

Future prospects after the Joint Action for ECHIM

None specified.

CYPRUS

National Implementation Team

The coordination is provided by the Health Monitoring Unit of the Ministry of Health. The closest collaborating partner is the Cyprus Statistical Service who organise and conduct the EHIS. Other collaborators include the Medical and Public Health Services and other Departments of the Ministry of Health, The Population Registry of the Ministry of Interior, The Department of Labour of the Ministry of Labour and Social Insurance, EKTEPN, the Police, the Health Insurance Organisation and health related professional organisations. An important recent addition to our collaborators is the Commissioner for Private Health Care Providers who have started supplying aggregate health care data to the Health Monitoring Unit and the Statistical Service.

There are no formal meetings of the National Implementation Team. However, there is constant communication, on an ad hoc basis, as a part of routine daily work.

Progress made since 2008

Most important improvements: Quality improvements in the Cancer Registry. Introduction of a new death certificate based on requirements of the causes of death implementing regulation. Creation and maintenance of a medical birth register for public maternity units. Improvements in the Injury Data Base. Initiation of collection of some aggregate data from the private sector. Partial introduction of clinical coding in public hospitals.

Current shortcomings and hindrances: Financial crisis, staff shortages, resistance to change in primary source systems, inability to collect data from private health care providers, lack of national legal framework for the Health Monitoring Unit.

Actions currently ongoing: Introduction of clinical coding of diagnoses and medical procedures by the Ministry of Health as part the implementation of a DRG system, in collaboration with the Health Insurance Organisation. Preparation of a draft law empowering the Health Monitoring Unit to collect health data.

Actions planned next: Expansion and improvement of the system of data collection from the private sector, introduction of the DRG system, introduction of a legal framework for the HMU. EHIS in 2014, planned by the Statistical Service.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made. Our main concern in recent years has been the creation of previously absent or the implementation of basic improvements in existing data collection systems. The characteristics of the national health care system make it difficult to collect nationally representative health care data. Derivation of indicators from registers is not easy except for nationwide population based registers (e.g. cancer registry) or surveys.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? For Cyprus, it would have been better if more attention was given to harmonising primary data collection systems.

How well has DG SANCO met the expectations of your country? What could have been done better? Coordination of national efforts at European level was adequate. We think more robust, cost-effective funding mechanisms and strengthening of the European legal framework as well as closer cooperation with Eurostat could have been done better.

How could the functioning of the NIT have been improved? Better organisation and establishment of formal meetings would have improved the functioning of NIT. Financial constraints and staff-time limitations were a hindrance.

Future prospects after the Joint Action for ECHIM

We intend to continue collaborating with network partners and using the ECHI Indicators in our national health information system.

CZECH REPUBLIC

National Implementation Team

NIT has ca. 10 members, some of which were replaced during the project duration. Involved organisations are the Institute of Health Information and Statistics, Ministry of Health, National Reference Center, General Health Insurance Company, Czech Statistical Office and National Institute of Public Health.

The NIT has met 2 times, first meeting was held in August 2010, second in May 2011. During the meetings, first, members of NIT were informed on "state of play" at national as well as international level. Second part of the NIT meeting was usually dedicated to discussion of presented topics, namely the future plans were discussed and participants were informed about their tasks. Finally the minutes of the meeting were disseminated to all members of NIT and approved.

Between the meetings e-mail communication was used in order to inform members of NIT on all news, changes and state of play.

Progress made since 2008

The situation changed significantly compared to previous project. The most important outcome of current action is that political support from Ministry of Health has been obtained. This political support should provide better achievement of implementation steps. Setting up the NIT can be also considered as an important step. In the previous phase of the ECHIM project activities were more concentrated on data scanning – it was important to find out, what kind of data related to ECHI Indicators are available. Due to uncertainties in some Documentation Sheets it was impossible to decide whether data for the given indicator are available or not. As a lot of work has been done on the Documentation Sheets during the last 2 years the activities have moved to the data collection and presentation rather than data scanning.

One of the most important activities done within the project was promotion of ECHI Indicators at the national level, their implementation into the national Data Presentation System, introduction of the national website where information on this topic can be found – this was not available at all during the previous phases and the NIT hopes to work on this during the next years.

Significant improvement was done on availability of administrative data on prevalence of depression, diabetes, asthma, COPD through intensive collaboration with the General Health Insurance Company. Data from this source are based on the administrative

evidence of the General Health Insurance System, which accounts more than 70% of population. All cases when the care is provided to the patient and the given diagnose is reported are covered (ambulatory as well as in patient care). Additionally, during the processing data were filtered in order to eliminate multiple cases of use of care by the same person for given diagnose.

Most important improvements: Obtaining political support by approving the Joint Action for ECHIM, and setting up the NIT, communication activities – website, leaflet etc.

Current shortcomings and hindrances: Lack of awareness and interest in ECHI Indicators among the potential users, lack of finances and lack of experts who could maintain the national presentation tools related to ECHI.

Actions currently ongoing: Implementation of ECHI into national data presentation system.

Actions planned next: Creation of InstantAtlas dynamic presentation of selected groups of ECHI Indicators on the website, translation of Documentation Sheets (at least some of them), translation of the final report of the project (partly), and creation of a "cookbook" for national ECHI users.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: 2014.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. There exists a national data presentation system which covers also ECHI Indicators (www.uzis.cz/cz/dps/english/index.html). If the DPS is considered, currently only 14 indicators are represented (some of them partly), but the online version is to be updated shortly and will include more indicators labelled as "ECHI". If the availability of indicators for the Czech Republic in general is considered, about 80% of all 88 ECHI shortlist indicators are covered; most of those for which there are no data are from development or work in progress sections of the ECHI shortlist.

3) National ECHIM website: www.uzis.cz/cz/echim/en/index.html.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? Quite well, we followed recommended scheme of implementation and used recommended and well prepared tools for this purpose. We really appreciated the detailed background materials for indicators which make their use and interpretation much easier, especially for non-professionals.

Unfortunately, the project was realised during the economic crisis, which was one of the reasons why no new or more detailed data collections could be introduced. In general, it is not very easy to introduce new data collection or to change the current system due to financial and legislative restrictions.

How well has DG SANCO met the expectations of your country? What could have been done better? The important step done by DG SANCO was significant improvement of the HEIDI Data Tool during the last phase of the project, which enables users to make easily international comparison of selected ECHI Indicators. On the other hand, it would be desirable to better describe the metadata for users of the tool, namely the deviations from the standard methodology if there are any in given country.

Concerning the expectations we think that DG SANCO's support of countries in implementation of ECHI at national level could be more intensive, at political level (information to national governments on purpose of the project with request for support at the political level) as well as at financial level (there was no funding, except of participation in the meetings) provided to some countries included in the project and the costs related to activities done at the national were substantial. The absence of political and organisational support from DG SANCO is apparent also from the fact that at the end of the project we still do not have any idea or support in continuation of the project in the future and clearly described system of data collection for ECHI Indicators (not available from the international sources) from the national level is missing.

How could the functioning of the NIT have been improved? By more frequent cooperation; 2 meetings and few e-mail communications per 3 years is not enough, better distribution of activities among all members of NIT would be desirable, the main part of activities was done by 2 core persons and participation of other members was rather formal than practical. But it is related to overall insufficient support of the project at international and national level and lack of finances and capacity for these activities.

Future prospects after the Joint Action for ECHIM

The future prospects are not very good in the Czech Republic, as the political support is still weak and there are numerous limitations concerning the health statistics, especially due to financial crisis and a request to decrease administrative burden. We plan to use ECHI Indicators when preparing different health reports, we would like to promote their use and we plan to update the shortlist and related materials when necessary, but there are no additional capacities for further development of ECHI related activities.

DENMARK

National Implementation Team

The National Implementation team was first formalised in 2010, and therefore the work has been spare. NIT consists of members from the National board of Health, Statistic Denmark and the National Institute of Public Health. The NIT has had four face-to-face meetings and ongoing telephone and e-mail communication since it was established. The topics for the meetings have been the overview and definition of ECHIM, the agreement between ECHI Indicators and national data sources, delivery to the ECHIM Pilot Data Collection and the preparation of a national implementation plan.

Progress made since 2008

Most important improvements: The establishment of the NIT, delivery to the ECHIM Pilot Data Collection and preparation of the national implementation plan have greatly improved the prerequisites for implementation by heighten the awareness and knowledge about ECHIM and by identifying national data sources.

Current shortcomings and hindrances: Lack of resources.

Actions currently ongoing: Harmonisation of national data sources and ECHI Indicators.

Actions planned next: Further harmonisation of national data sources and ECHI Indicators.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? No change.

Data availability

EHIS first round: Not done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made. Some ECHI Indicators are similar to indicators already used in the national health indicator monitoring system and they are published in both national reports and online

databases. For about 60% of the ECHI Indicators a corresponding indicator can be found in the national health indicator monitoring system and these indicators are regularly used in national public health reporting and reports. The National Board of Health have launched an online database (www.sundhedsprofil2010.dk) as part of the publication process, but since the database only includes HIS indicators – where only some of them are ECHI Indicators – and is only available in Danish, we do not find it relevant or useful to label which are ECHI Indicators. We will however take this into consideration when presenting the results for the next national HIS where EHIS indicators should be fully integrated.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? The basic idea of ECHIM is very good, and the work group has done a tremendous and thorough work so in that respect the expectations have been fully met. However it is very difficult to "compete" with already establish national indicators or develop new data sources without adequate financing and mandate from the EU.

How well has DG SANCO met the expectations of your country? What could have been done better? See above.

How could the functioning of the NIT have been improved? The NIT should have been made a priority and been establish earlier in the process.

Future prospects after the Joint Action for ECHIM

None specified.

ESTONIA

National Implementation Team

National Implementation Team consists of members from Health Information and Analysis Department, Ministry of Social Affairs, and Department of Health Statistics, National Institute for Health Development.

Progress made since 2008

Most important improvements: Development of a unified platform for registries, enabling register linkage (ETRA) and leading to easier delivery of data. Developing the national health statistics database. Dissemination of information about ECHI Indicators on governmental level, in the counties and municipalities, and among the health care providers. Development and harmonisation of methodology.

Current shortcomings and hindrances: Poor availability of certain data (e.g. those requiring specialised morbidity registers), harmonisation of registries' data and possibilities of linkage, limited personnel resources. Lack of time for sustained activities in addition to everyday work.

Actions currently ongoing: We are developing the national health statistics database to bring forth ECHI Indicators among other health data by identifying them as a separate group to create the ECHI "user-window." (The database is available both in English and Estonian, therefore ECHI indicators are also both in Estonian and in English.)

We are also currently improving the indicators in our National Health Plan to include more ECHI (currently 19 of 31 indicators are also in ECHI shortlist); We are preparing for EHIS 2 wave. We are integrating EHIS 2014 questionnaire to our 2014 HIS to get comparable ECHI Indicators.

We are developing e-Health statistical module for getting patient data on individual level for producing regular statistics (the pilot testing starts in summer 2013). Due to that the data specification and quality are expected to improve. The first relevant hospital care indicators using e-health should be available in 2014. Also same definitions related to inpatient care are revised on national level.

Actions planned next: Collaboration with e-Health Foundation, and obtaining data from Electronic Health Record system by Statistical Module which is currently being developed. When the ECHI "user-window" at the national health statistics database is ready, we will start more widespread dissemination of information (press releases, articles) about ECHI Indicators to general public and interested parties.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Done.

EHES pilot: Not Done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. We have started to integrate the ECHI shortlist to our national database (National DPS: pxweb.tai.ee/esf/pxweb2008/dialog/statfile1.asp) and have created a tentative ECHI "user window" (pxweb.tai.ee/esf/pxweb2008/Database en/ECHI/ECHI. asp; work still in progress).

Indicators completely or partially implemented either in National Health Plan or Regional Health Profiles: 31/88 (35%)

Indicators already in the database: 44/88 (50%)

Indicators in the database and distinguished as ECHI: 16/88 (18%)

Overall data availability (indicators completely or partially available):71/88 (81%)

In addition, some ECHI indicators are similar to or the same as indicators already included in the National Health Plan: www.sm.ee/eng/activity/health/national-health-plan-2009-2020.html (p. 23–24, 28, 39, 45–46), although not explicitly labeled as ECHI Indicators.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? More possibilities for international comparison – integration of ECHI into Eurostat datasets.

How well has DG SANCO met the expectations of your country? What could have been done better? There could have been better communication / exchange of information and experience between MS or ECHIM team when the development of HEIDI Data Tool was ongoing, to make it more user-friendly. Also communication in the country should be on a better level. Statistics makers were not informed enough about the developments and could not provide own input. In the sense of workload, the inputs expected from countries could have been more pre-planned and informed in advance, for enabling better integration with our everyday work.

How could the functioning of the NIT have been improved? The national level teamwork would have needed more coordination and co-operation. There could have been more face-to-face meetings to get some time to concentrate just on ECHIM.

Other comments? ECHIM year action plan should be provided to countries regularly as well as reports. More coordination from DG SANCO side is expected in the future. The development of different tools like HEIDI Data Tool should be discussed in extended groups.

Future prospects after the Joint Action for ECHIM

We will continue integrating the ECHI Indicators to our national health statistics database and labelling them as such. Efforts to disseminate the information about ECHI Indicators should be increased. The possibility of usage of indicators should be supported and promoted both on national and international levels.

FINLAND

National Implementation Team

The NIT in Finland is based on two interlinked circles. The inner circle is based on the expertise of the National Institute for Health and Welfare (THL) and consists of the ECHIM Helsinki secretariat personnel together with a few other THL experts, including the Finnish contact person for data delivery to Eurostat, WHO and OECD Health Data, and a communications officer.

The outer circle is flexible and includes contacts that are maintained depending on the stage of the implementation process as well as indicators that are on the agenda. Closest contacts are with Thematic Programme for Key Indicators on Health, Welfare and Social Services (INDI) project and Our Health, an interactive statistical database.

The first meeting (16 persons from THL) of the NIT was held at THL in January 2010. The ECHIM Helsinki secretariat has weekly meetings and the national implementation issues are on the agenda when necessary.

Progress made since 2008

Most important improvements: Register coverages are complete and quality is good. Most of the register based data are available also on regional level. The collection of register data on primary care in health care centres started in 2011 improved the register data further. The implementation of electronic receipt has been delayed, but it is now in use in several health districts. The legislation on biobanks and health registers will be updated in 2012–2014, but it remains unknown how much this affects the public health monitoring.

Current shortcomings and hindrances: 1) Due to lack of long-term funding the population surveys are carried out at unpredictable intervals. However, until now, this has not prevented us from obtaining useful data also for time series. In regard of indicators for which EHIS is the preferred data source, main problem is that there has not been a nationally representative HIS since 1996. THL will carry out the EHIS, but there is lack of funding to carry out EHIS as a separate survey. A large proportion of similar HIS content has already been incorporated in the questionnaires used in the nationally representative Health 2011 HES survey. However, only a part of the questions are exactly the same as in EHIS. 2) Lack of funding and thus manpower (for conducting EHIS; for continuation of national implementation after the end of Joint Action for ECHIM).

3) Complex administration, co-operation and coordination between institutes could always be improved. 4) Problems to integrate local and regional IT programmes and

solutions in national health information systems have caused severe delays and poorer quality in national data collections. 5) The closure of the Finnish Information Centre for Register Research (RETKI) in spring 2012. 6) Statistics Finland employs unduly strict rules with record linkage of e.g. socio-economic status with other data sources.

Actions currently ongoing: Full scale national HES (Health 2011; www.terveys2011.info). Regional and local survey data are still scarce but THL has created a system of postal regional surveys (Alueellinen terveys- ja hyvinvointitutkimus, ATH), which municipalities and regions can use to monitor their citizens' health.

Actions planned next: Continue with implementation of ECHI Indicators into Our Health and SOTKAnet Statistics and Indicator Bank. Continue co-operation with INDI and Our Health projects to ensure that the indicators used are compatible with the ECHI Indicators when feasible.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Not done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: 2011–2012.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6c) ECHI Indicators have been included in public health monitoring and reporting systems in other forms. Some of the ECHI shortlist indicators have been incorporated in the Our Health database (www.terveytemme.fi; in Finnish only) and more will be included in the near future. A category of ECHI Indicators is being included in the SOTKAnet (uusi.sotkanet.fi) which contains comprehensive statistical information on health and welfare in Finland. It also includes key data on population and health in Europe broken down by country.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? Joint Action for ECHIM was successful in providing a framework for the implementation of the ECHI shortlist indicators on the national level. As many feel that there was insufficient political support and acknowledgement of the ECHI shortlist,

ECHIM should have been able to put more efforts in getting continuous and concrete (political, financial) support for the implementation work and the ECHI shortlist from DG SANCO.

How well has DG SANCO met the expectations of your country? What could have been done better? DG SANCO must be thanked for co-funding work on the ECHI Indicators for over 10 years. However, during Joint Action for ECHIM, support by DG SANCO should have been more active, substantial and visible. For example, the supporting/invitation letter of DG SANCO to the Health Attachés at Permanent Representations to the EU should have been sent out right at the start of the Joint Action. In addition, symbolically, even a small amount of financial support by DG SANCO would have had a considerable positive effect. Despite the inherent difficulty of sustaining work which has been developed in projects, DG SANCO should have had a more clear and concrete vision of the sustainable continuation of the ECHIM work. An important step of DG SANCO was the introduction of the HEIDI Data Tool.

How could the functioning of the NIT have been improved? The merger of the National Public Health Institute and STAKES into THL, together with bureaucracy at THL, impeded and slowed down the implementation process.

Future prospects after the Joint Action for ECHIM

Currently, no national funding is available for ECHIM work, but THL will participate in the interim ECHI network.

FRANCE

National Implementation Team

In France an expert team was set up to initiate the use of the ECHI shortlist indicators in a national report comparable to the "Dare To Compare" report published by the RIVM (Netherlands). Together with an advisory board the expert team is regarded as the National Implementation Team.

Progress made since 2008

Most important improvements: In addition to the response to the Pilot Data Collection the main activity related with ECHI during the last period was essentially devoted to producing the report "Health in France and in Europe - convergences and contrasts" (in French only), which is a first attempt at using the system of ECHI Indicators. The report is now published (online version:

 $\underline{www.hcsp.fr/docspdf/avisrapports/hcspr20120301_santeFranceEurope.pdf}).$

With respect to the data delivery systems, up to now the only indicators system as such which is established is the one for monitoring the 100 objectives defined in the Public Health Law of 2004. As the usefulness and necessity of international comparisons is now commonly accepted in France, the definition of these indicators was sought whenever possible consistency with the ECHI Indicators. The latest report about these 100 objectives is available online at www.drees.sante.gouv.fr/IMG/pdf/etat_sante_2011.pdf.

Current shortcomings and hindrances: The answer to ECHI Indicators will mostly go through the response to regulations implemented by Eurostat. Indeed for now it is the only obligation recognised by statistical services. More generally, the only way the ECHI shortlist will be integrated with national indicator systems is that it is included in the replies to requests from international databases, mainly Eurostat but also specialised agencies (IARC, EMCDDA, ECDC, etc.).

Actions currently ongoing: For all diseases for which the indicator is split between EHIS and response to an estimate from registers, as it comes to important diseases, the Institute for Public Health Surveillance includes them into its work programme.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: 2013.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6b) ECHI Indicators have been used in published public health reports and/or other publications. ECHI Indicators are the basis for the report "La Santé en France et en Europe: convergences et contrastes". The report is in French but the summary will be translated to English soon. For each indicator, in addition to the data and figures, there is a methodological part that gives the status of the indicators for France.

Lessons learned, conclusions and recommendations

One lesson of our work in producing the report "La Santé en France et en Europe: convergences et contrastes" is the difficulty of knowing and analysing the situation in all European countries for experts of one country. So our view is that priority is the completion of reports at European level using the expertise of experts of the different countries, for instance the EGHI.

Future prospects after the Joint Action for ECHIM

None specified.

GERMANY

National Implementation Team

National Implementation Team consists of members from Robert Koch Institute, Federal Statistical Office and Federal Ministry of Health.

Three NIT meetings were organised (in 2010–2011) focusing on data availability, data presentation and integration in the national health information system. Next meeting is planned for June 2012.

Progress made since 2008

Most important improvements: Several questions of the German Telephone Health Interview Survey (GEDA) have been modified according to EHIS round 1 standard, providing the basis for the calculation of the EHIS based ECHI Indicators. Presentation of the German ECHI shortlist indicators in the Federal German Health Information System (until June 2012 a total of 41 indicators are presented).

ECHI shortlist has been integrated in the national health information system (www.gbe-bund.de). The presentation of the available indicators at national level is linked with the ECHIM website.

Current shortcomings and hindrances: The use of the ECHI Indicators is limited due to the inefficient user interface. The problem relates to the missing functionalities of the HEIDI Data Tool to provide direct links to specific indicators. A clear plan to maintain and improve the ECHI system is needed to justify further investments of the Robert Koch Institute. The future of the use of the indicator system at the European level is unclear.

Actions currently ongoing: Preparation of the Implementing Regulation for EHIS round 2. Efforts to allow for further work on the ECHI system under the 3rd Health Programme of the European Commission have been undertaken at council level.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: Decision pending, intended for 2018.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

- 6a) ECHI Indicators have been included in national health indicator databases or datasets. ECHI Indicators have been included in national health indicator database (www.gbe-bund.de). Data for ca. 47% of the ECHI shortlist indicators can be found there.
- 5) The use of the ECHI Indicators in national health monitoring and reporting systems is stated in the plans for future actions. The ECHI shortlist indicators will be used for European comparisons in the next national Health Report. This work is going to start early in 2013.
- 3) National ECHIM website: www.gbe-bund.de.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? ECHIM has provided the framework to implement the ECHI shortlist indicators at national level. In that respect it has met the expectations. A stronger involvement and participation of the national health policy makers would have been needed.

How well has DG SANCO met the expectations of your country? What could have been done better? DG SANCO has contributed substantially to the success of ECHIM by co-funding the process since 12 years and its contribution via the HEIDI Data Tool. However a clear vision for the sustainable operation of the ECHI system at European level and for their use has limited the impact of the action for the European health monitoring and reporting system. Moreover, it is recognised, that the discussion about the future of the organisation of a central health monitoring and reporting capacity at European level was treated with reserve by the European Commission as well as by the Member States.

How could the functioning of the NIT have been improved? The German National Implementation Team was working effectively and efficiently.

Future prospects after the Joint Action for ECHIM

The Robert Koch Institute will participate in the interim ECHI network and continue with the efforts to modify the 3rd Health Programme, taking into account the need for further common work on the sustainability of the ECHI system and its relevance for the European health monitoring and reporting system.

GREECE

National Implementation Team

National Implementation Team in Greece consist of members from National School of Public Health (as the institution which co-ordinates the National Health Map & Indicators projects).

Three meetings on Health Indicators deliverable were held. One meeting was organised at a Health Region (South West Greece) for presentation of the Electronic System of ECHI Indicators.

Progress made since 2008

Most important improvements: The integration of all ECHI Indicators into the National Health Indicators System. The production of the electronic system for use in each Regional Health Authorities (7) for producing health indicators for benchmarking and health policy planning

Current shortcomings and hindrances: There are some in collection of base data but this is rapidly progressing positively. Political instability hinders the use of indicators for health policy as yet.

Actions planned next: Health indicators system is progressively solidified.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A lot.

Data availability

EHIS first round: Done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: 2012–2013.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. All ECHI Indicators are included. It is a web-based platform that can be used as an internet data presentation tool and export indicators database, including interactive maps (paratiritirio.system.com.gr). It is in the use by the Health Authorities and

Research Centers, and an electronic system of health indicators is produced for each Regional Health Authority separately. One needs to register before one can access the database. ECHI Indicators are incorporated there in a distinct form in the general list of indicators.

- 6c) ECHI Indicators have been included in public health monitoring and reporting systems in other forms. Particularly on the level of regional health system.
- 5) The use of the ECHI Indicators in national health monitoring and reporting systems is stated in the plans for future actions. At paratiritirio.system.com.gr.
- 4) ECHI Indicators are explicitly mentioned in the most important national health data presentation websites. Partly

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? Very much. Most important is that ECHIM has been the catalyst and the vehicle in promoting the political decision for implementation of a Health Indicator System.

How well has DG SANCO met the expectations of your country? What could have been done better? Very well. It has opened the ground for such a policy action.

How could the functioning of the NIT have been improved? When political stability allows, the NIT would take substance as a permanent Directorate at Ministry level caring for Health Monitoring (health indicators production uses, regional health profiles etc).

Other comments? The work done so far is effective and very promising, it all depends on how quickly the Ministry of Health moves into its rational Health planning activities, as at the moment it is under the pressures of a "Troica Memorandum" because of the economic crisis.

Future prospects after the Joint Action for ECHIM

Keeping up an unofficial or semi-formal platform on ECHI developments.

ICELAND

National Implementation Team

The National Implementation Team consists of three experts, from the Directorate of Health and from Statistics Iceland.

Progress made since 2008

Most important improvements: There has been an increased emphasis on the development and dissemination of health indicators in Iceland. Availability of registry data is relatively good, while ECHI-compatible survey data are more limited. The availability of more data from the EU-SILC has resulted in the possibility of including more ECHI Indicators for Iceland.

Work on the harmonisation of definitions and on data collection between Eurostat and OECD has proven to be beneficial.

Several ECHI-compatible indicators have been incorporated into a set of indicators which has been developed and disseminated by the Directorate of Health in Iceland. Some ECHI-compatible indicators also form a part of a set of social indicators which was published by the Ministry of Welfare in February 2012. However, the indicators in these indicator sets are not explicitly labelled as being ECHI Indicators.

Current shortcomings and hindrances: The EHIS has not been conducted in Iceland as of yet. A national health survey, Health and Wellbeing of Icelanders, was implemented in 2007 and 2009 and is planned for 2012; however this is only partially compatible with the EHIS. Therefore, some ECHI Indicators, e.g. on health status, in particular on self-reported prevalence of diseases, are not available.

Actions currently ongoing: Discussions are under way regarding the possibility of conducting the EHIS in Iceland in 2014. This is yet to be confirmed. Work is under way to improve timeliness of hospital discharge data.

Actions planned next: The continued development and dissemination of health indicators is incorporated into the Directorate of Health's work plan. The ECHI Indicators will be one of the reference points for this work. Regular updates and dissemination of social indicators are planned on behalf of the Ministry of Welfare.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Not done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

2) Only some steps recommended by Joint Action for ECHIM have been made. The ECHI Indicators have been partially included as part of two national health indicator datasets.

Official health indicators of the Directorate of Health: The Directorate of Health in Iceland has published a set of health indicators since 2008. The indicators are presented on the Directorate's website, with comparison to OECD averages and EU27 averages, where available. Many of the indicators comply fully with the ECHI definitions; others partially. However, these indicators are not explicitly labelled as ECHI Indicators.

Social indicators of the Ministry of Welfare: Some ECHI Indicators have been included in a set of social indicators published by the Ministry of Welfare, as part of the work of a Steering Committee to Monitor the Welfare System (The Welfare Watch). The Welfare Watch was established after the financial crisis of 2008 and is intended to monitor systematically the social and financial consequences of the economic situation for families and individuals in Iceland and to propose measures to help households. A set of indicators was first published in February 2012; however, the aim is for the list to be re-evaluated, updated and published at regular intervals. Expert groups (including two members of the ECHIM NIT) were assigned to assess relevance of indicators and data availability. About 20 of the ECHI Indicators were included, partially or to a full extent in the health chapter of the final version of the Social Indicators, although they are not explicitly labelled as ECHI Indicators.

Lessons learned, conclusions and recommendations

None specified.

Future prospects after the Joint Action for ECHIM

None specified.

IRELAND

National Implementation Team

The Information Unit in the Department of Health functions as the NIT and meets at least once per month. ECHI is generally discussed and progressed in the context of the Statement of Strategy for the Department of Health which covers a three year period (2011–2014) and which includes a "Performance Evaluation Framework". This framework has a set of indicators associated with it which are designed to provide high level measurement of health service performance across four domains. These are: A) To keep people healthy, B) To provide the health care people need, C) To deliver high quality services, and D) To get best value from health system resources.

These indicators are currently under review in order to align them as closely as possible with progress in the implementation of Ireland's new health reform programme. The initial set of indicators, prior to the current review, comprised 51 indicators of which 14 were ECHI Indicators. There is a clear recognition of the value of timely and comparable EU health indicators in order to provide benchmarks for performance wherever feasible.

Progress made since 2008

Most important improvements: The most significant improvements have occurred in collaboration with the ECHIM project team in the detailed work on the improved definitions and metadata for many of the indicators. Advances have also been made in the development of software tools at national level for data dissemination.

Current shortcomings and hindrances: There is increasing recognition of the value of comparable health indicators across the EU which is a strong positive development. On the other hand, the current economic climate makes it difficult to initiate any new data collection to improve the completeness of data available to calculate ECHI Indicators.

The principal hindrance to the full collection of ECHI Indicators remains the scarcity of timely data derived from HIS or HES. The last national HIS (Slán) took place in 2007 and is not scheduled to be repeated due to economic constraints. There are plans to carry out a more limited survey later this year to obtain data on key health determinant and lifestyle indicators. This should assist in providing data for a number of ECHI Indicators in advance of the EHIS being carried out in Ireland in 2014.

Actions currently ongoing: Plans are in place to carry out a national HIS in 2012 which will augment the availability of data for ECHI indicators. National performance indicators are currently under review and will utilise ECHI indicators wherever feasible.

Actions planned next: The next immediate action is to complete the review of national performance indicators. A further priority is to input into current plans for a health interview survey to ensure that ECHI requirements are reflected in the survey questions. Where possible, the questions will be modeled on the draft EHIS round 2 questionnaire, and not the round 1 questionnaire which some ECHI Indicators are based on.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Not done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6c) ECHI Indicators have been included in public health monitoring and reporting systems in other forms. There have, as yet, been no reports based exclusively on ECHI Indicators, but ECHI data is included in health reporting systems. National performance framework indicators (referred to above) will soon incorporate a number of ECHI Indicators and will be made available in a national online presentation system. The Department of Health's new Statement of Strategy contains several ECHI Indicators which will be used to measure success in different areas of health policy

(see www.dohc.ie/publications/statement of strategy 2011 2014.html).

5) The use of ECHI Indicators in national health monitoring and reporting systems is stated in the plans for future actions. ECHI is referenced as appropriate.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? ECHIM has made good progress and generally met expectations. The principal criticism is perhaps the length of time it has taken to reach the stage of implementation. The Joint Action (as distinct from the previous project status) has been beneficial in speeding up progress.

How well has DG SANCO met the expectations of your country? What could have been done better? As above, the difficulty has always been sustaining work which has been developed via time-limited projects. The development of HEIDI as an online tool for

ECHI data access is a welcome development and needs to be complemented with the necessary supports to ensure the longer term collection, validation and development of health indicator data.

How could the functioning of the NIT have been improved? The team has operated effectively in sourcing and delivering data and contributing to detailed definitional work. It may have benefited from wider consultation with stake holders.

Future prospects after the Joint Action for ECHIM

The principal message from a national perspective is to re-emphasise the increasing importance and value of this work. The focus on health system performance is growing and will be dependent on comparable indicators at EU level to monitor and evaluate national objectives. Further, health system performance should be seen in the broad context of health status and health determinants in addition to specific indicators on the efficacy of health systems. There is a danger that the expertise and achievements of the Joint Action for ECHIM will now be dissipated unless practical proposals are put forward for the long term development and sustainability of this important work.

ITALY

National Implementation Team

National Implementation Team consists of 16 members from National Institute for Statistics (ISTAT), Ministry of Health, and Istituto Superiore di Sanità (ISS).

Other experts will be invited to the NIT meeting if there should be the necessity of specific issues to be discussed, e.g. members of the State-Regions Conference, experts from the cancer register, from the national AIDS centre, from EUROCISS projects and from the CUORE project.

The first meeting of the NIT was in September 2009. The NIT checked the existing data sources and evaluated availability and quality of data necessary for the calculation the ECHI shortlist indicators. The communication survey was fulfilled and the first draft of the implementation plan was established. The second meeting was in January 2010. The members endorsed the Italian Indicator Data Availability Sheets and finalised the implementation plan. A more detailed national communication plan was drafted.

In addition, members of the Italian NIT took part as observers to the ECHIM Core Group meeting held in Rome on 22.–23.9.2011. Also submission of the ECHIM newsletters and submission of the ECHIM Meeting materials to the members of the Italian NIT was done.

Progress made since 2008

Most important improvements: Inclusion of ECHI Indicators in some national monitoring systems. Inclusion of ECHIM project in the National Statistical Programme (PSN). Development of the Italian project "Validazione e comparazione Italia/EU degli indicatori LEA-SIVeAS" related to the LEA (Essential health care levels) taking as reference indicators validated by ECHIM and the European Commission, for monitoring the health status of the population in Italy. Creation of a ECHIM section in Epicentro website (the portal of the National Center for Epidemiology, Surveillance and Health Promotion of the ISS available at: www.epicentro.iss.it/stumenti/echim.asp). Acknowledgement of the Italian NIT and of the activities developed in ECHIM, in the planning document for the preparation of the PSN 2011–2013 (www.sistan.it/psn/doc programmaz settor 2011 13.pdf).

Current shortcomings and hindrances: Most importantly: 1) The devolution of health issue from central government to the Italian Regions and the consequently needs for formal agreements through the Conference State – Regions. 2) The lack of funding and manpower. 3) The lack of EU support on the development of ECHI indicator systems in MSs. 4) Poor record linkage possibility in Italy. 5) No European HES.

Actions currently ongoing: 1) Production of a final report of the Italian project "Validazione e comparazione Italia/EU degli indicatori LEA-SIVeAS" in which there are the ECHI shortlist indicators for monitoring the health status of the population in Italy. 2) Publication of the Italian ECHI shortlist in the ECHIM section in Epicentro website. 3) Submission of the ECHIM leaflet translated in Italian language to the stakeholders of the national and local monitoring offices.

Actions planned next: 1) Annual meeting of the Italian NIT in order to update the monitoring system according to the development of the EU system. 2) Proposal to the Italian MoH of a new project on a new regional system of indicators based on the ECHI shortlist, adopting the database software developed by the WHO (Health for All database), in order to make easier for users and regional stakeholders to access the information available either as tables, graphs and regional maps. 3) Translation of the ECHIM Final Report in the Italian languages and distribution of it to the stakeholders of the local and central units of epidemiology and to national stakeholders that are in charge of the development of the local and national monitoring systems.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done (partly).

EHES pilot: Done.

Full scale (E)HES planned in the near future: 2010–2012.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. 77 out of 88 ECHI shortlist indicators (87%) are available in our database or it's possible to calculate it. In some cases, the definition of the indicators is quite different from that adopted by ECHIM but it is possible to recalculate it. We haven't yet published a public health report based on ECHI Indicators, but it will be the output of the LEA SIVEAS project.

- 4) ECHI Indicators are explicitly mentioned in the most important national health data presentation websites. Link to the HEIDI Data Tool and www.echim.org are available:
- a) In the ECHIM section of Epicentro website:

www.epicentro.iss.it/stumenti/echim.asp.

- b) In the MoH website: www.salute.gov.it/salaStampa/datiStatistici.jsp.
- c) In the section of the CCM webpage (National Centre for Disease Prevention and Control whose task is to liaise between the Ministry of health on the one side, and

regional governments on the other as regards surveillance, prevention and promptly responding to emergencies): www.ccm-network.it/node/1534.

3) National ECHIM website: www.cpicentro.iss.it/stumenti/echim.asp and www.ccm-network.it/node/1534.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? The members of the Italian NIT are involved in the activity of National Observatory on Health Status in the Italian Regions that represents a cooperation among the Institute of Hygiene, Preventive Medicine and Public Health of the Catholic University of Sacred Heart and several national, regional and corporate public institutions (MoH, ISTAT, ISS, the National Research Council (CNR), the Italian Medicines Agency etc). The output of the activity of the Osservatorio is the Osservasalute report - Health status and quality of the health assistance in the Italian regions. The Report adopts a comparative methodology analysis and indicators validated at international level, according also to the ECHIM and other European projects. See www.osservasalute.it/index.php/target.

How well has DG SANCO met the expectations of your country? What could have been done better? Based on the outcomes and on experiences in the first data collection, the EHIS questionnaire has been thoroughly revised and maybe there has been a lack of communication between ECHIM and Eurostat.

Many difficulties have emerged in the course of the project regarding the possibility of adapting the standards for monitoring and the possibility of resolving critical issues related to the introduction of new indicators proposed by Eurostat. This means that the new information provided by the new EHIS will produce, probably duplication of data compared to that provided at national level. ECHIM should have had a greater coordination role in the development of the new instrument specifically in that areas for which the European Commission and DG SANCO are defective.

How could the functioning of National Implementation Team have been improved? The collaboration between different research and institutional offices has been the basis for the development of experience of data collection in each field of health status monitoring.

The creation of the NIT in Italy has been the most important step to improve cooperation at national level in order to obtain a standard available health data for monitoring system at national and regional levels.

Future prospects after the Joint Action for ECHIM

None specified.

LATVIA

National Implementation Team

The NIT in Latvia consists of six experts from the Centre for Disease Prevention and Control, and it was established in September 2010. The main tasks are to assess the health statistics data flow, data circulation, primary data sources, data necessary for the international databases, medical documentation, statistical reports etc.

The main topics discussed during the meetings were 1) Health statistics data flow, data volume and availability, 2) Causes of death statistics, 3) Statistics of health of mothers and children, 4) Classifications of medical establishments and hospital beds in Latvia, 5) Registration of medical professionals, and 6) Statistics and registration of patients suffering from disorders due to psychoactive substance use.

Progress made since 2008

Most important improvements: The National implementation team was established. National Implementation plan for Latvia has been submitted to the ECHIM secretariat. The Indicator Data Availability Sheet has been completed, and availability of ECHI shortlist indicators has been assessed. 66 ECHI Indicators can be obtained from either international or national data sources. Some of them are partly available.

Current shortcomings and hindrances: The main obstacles to get complete data for ECHIM are 1) A few specific patients' registers are lacking, 2) Data on hospital discharges, day cases, surgery and outpatient visits are available only for the healthcare services paid from the state budget, and 3) Several indicators are not available by the requested dimensions of the socio-economic status.

Actions currently ongoing: Renewal of the National Health Indicators database (DPS).

Actions planned next: Integration of ECHI shortlist indicators into the National Health Indicators Database (DPS).

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

2) Only some steps recommended by Joint Action for ECHIM have been made. There was reorganisation of the administration of healthcare system in Latvia recently. Significant structural changes have occurred. At present the ECHI shortlist is the most important benefit of the Joint Action for ECHIM. These indicators can be integrated into health monitoring and reporting systems in the future.

In the National Health Indicators database (DPS) there are currently data corresponding to 23 ECHI Indicators (*at least partly*). However, they are not explicitly labeled as ECHI Indicators. In total 66 ECHI Indicators can be obtained from either international or national data sources. Some of them are only partly available.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? The ECHI shortlist indicators, including definitions, calculation and preferred data sources, as well as recommendations for renewal of the National Health Indicators database (DPS) are the most important benefits of the Joint Action for ECHIM.

How well has DG SANCO met the expectations of your country? What could have been done better? The HEIDI Data Tool provides convenient access to the pilot data. Accordingly, the data can be compared across the countries.

How could the functioning of the NIT have been improved? Some stabilisation of the situation is needed after the structural reforms of the healthcare system administration. That would help to define sustainable goals as well as tools for the assessment of the national health policy.

Future prospects after the Joint Action for ECHIM

The Centre for Disease Prevention and Control of Latvia has expressed its interests to take part in the next project based on ECHI as an Associated Partner.

LITHUANIA

National Implementation Team

The NIT in Lithuania consisted of experts from Institute of Hygiene (coordinates Joint Action for ECHIM in the country), Lithuanian University of Health Sciences, Statistics Lithuania, and Ministry of Health.

Informal working meetings and communication between core NIT members were taking place regularly. Extended NIT meeting (ca. 20 participants representing various stakeholders) took place in March 2011. In addition to the above institutes, the meeting was attended by representatives from Vilnius University Oncology Institute (Cancer Register), national Mental Health, Infectious Diseases and AIDS centres, the State Patient Fund, and the Association of (regional) Public Health Bureaus. The main topics were 1) The situation, problems and prospects in health data collection in specific fields, 2) Integration of ECHI into national health indicator database and using it as a common platform for dissemination of data collected by various institutes, and 3) Developing new methods for calculation of morbidity indicators using the Compulsory Health Insurance Fund database.

Progress made since 2008

Most important improvements: Incorporation of ECHI into the national health indicator database, ensuring their regular updating and dissemination. In general, the Joint Action for ECHIM was very useful by stimulating further developments in the national health indicator database, improvements in international comparability of indicators and the development of innovative ways for estimating morbidity and other health indicators from administrative records.

Current shortcomings and hindrances: Probably the main problem remains the insufficient official status of ECHI Indicators, i.e. the lack of visibility and sufficiently strong promotion of ECHI from the European Commission side, as of the main instrument for health monitoring in EU. This results in the lack of attention, support and resources for ECHI from national health administration. Unclear future of ECHI in DG SANCO plans makes difficult to include any further support to ECHI in national plans. Other general problems: lack of HIS/HES data in Lithuania for survey-based ECHI Indicators (HIS is planned for 2014, no clear plans for HES), compartmentalisation of health data sources and legal obstacles for personal ID-based record linkage, insufficient financial and human resources in health information field in general.

Actions currently ongoing: Finalisation of the new, 2012 version of the National Health Indicator Database with integrated selected ECHI Indicators and efforts to secure these results for future.

Actions planned next: Regular annual updating of the database including available data for ECHI. Continuous efforts to improve the availability and quality of data for health indicators, including ECHI.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Not done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. 29 (33%) out of the 88 ECHI shortlist indicators are represented in the national health indicator database comprising over 220 operational indicators (sic.hi.lt/html/en/lhic.htm). Another 30 (34%) of ECHI shortlist indicators are available only at national level or are not included into the database for other reasons.

4) ECHI Indicators are explicitly mentioned in the most important national health data presentation websites. <u>sic.hi.lt/html/echim.htm</u>.

3) National ECHIM website: sic.hi.lt/html/echim.htm.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? There were no special country expectations in relation to ECHIM, although some administrative and technical decisions and arrangements could be implemented faster.

How well has DG SANCO met the expectations of your country? What could have been done better? No sufficient political/official backing of ECHI as of the main (future) instrument for health monitoring in EU. The supporting letter of DG SANCO to Health Attaches at Permanent Representations to the EU was sent too late and to inappropriate addresses, and therefore it had little, if any, effect.

How could the functioning of the NIT have been improved? Some more official status attached to NIT would be helpful, but it depends on the general ECHI status (see the comments above).

Future prospects after the Joint Action for ECHIM

ECHI Indicators which have been incorporated into the National Health Indicator Database are expected to be further regularly updated. Currently there are no other ECHIM related plans unless some strong push from the Commission side will occur soon (see comments under Lessons learned, conclusions and recommendations).

LUXEMBOURG

National Implementation Team

There is no formal NIT; the two ECHIM contact persons from Ministry of Health act as the ad hoc NIT. No formal meetings either, just ad hoc meetings.

Progress made since 2008

Most important improvements: 1) Promotion of the results of the different ECHI projects, 2) Use of the model Documentation Sheet of the ECHI shortlist, 3) Use of ECHI Indicators in national reports on public health.

Current shortcomings and hindrances: Overload of work of possible members of a national board for health statistics and indicators. Such a board existed years ago but had few space and time to manage a heavy projected agenda.

Actions currently ongoing: Ongoing work concerns e.g. indicators on mental health in young people, perinatal health, and accidents.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Done (pilot).

EHES pilot: Not done.

Full scale (E)HES planned in the near future: The "Centre de Recherche Public Santé" in Luxembourg has planned resources to conduct a EHES, but it is too soon to have detailed agenda elements.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made. Some ECHI Indicators are similar to indicators already used in the national health indicator system and they are used in thematic national public health reports (e.g. on causes of death statistics, on perinatal and maternal health, and on breastfeeding), but they are not labelled there as ECHI Indicators.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? Standardisation of definition of health indicators is very useful for national purposes and international comparisons.

How could the functioning of the NIT have been improved? By having an official mandate and reserved resources to develop the activities of a national implementation team.

Future prospects after the Joint Action for ECHIM

None specified.

MALTA

National Implementation Team

A NIT was set up in April 2010; this team consisted of four representatives from the Department of Health Information and Research, two from the Ministry of Health, one from the National Statistics Office and one representing the National Hospital Information Systems.

The team met twice to discuss the availability of the core ECHI Indicators and work being done to implement those not available and once to work on the Pilot Data Collection. Several informal meetings were also held between the core members of the team from the Department of Health Information and Research and Hospital Information Systems to develop the pilot data collection.

Progress made since 2008

Most important improvements: Major progress has been made in developing a National Hospital Activity Information System, encompassing all hospitals on the islands. This is now fully implemented and running. Significant progress has also been made in developing a System of Health Accounts and initial data has been sent this year. It is aimed that this system develops further.

Current shortcomings and hindrances: Resource availability.

Actions currently ongoing: A national Dementia Register is currently being developed and will be in a position to supply ECHI related data in the future. National registers of mortality, cancers, obstetrics, congenital anomalies and injuries continue to be supported and are able to supply comprehensive data for purposes of relevant ECHI Indicators.

Actions planned next: To develop and run a full Health Examination Survey in 2014.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A lot.

Data availability

EHIS first round: Done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: 2014, pending on funding.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

4) ECHI Indicators are explicitly mentioned in the most important national health data presentation websites. ECHI Indicators are explicitly mentioned in the official National Health Information website with links to both the ECHIM website and the HEIDI Data Tool: ehealth.gov.mt/HealthPortal/strategy_policy/healthinfor_research/ -> Health Indicators.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? ECHIM has helped in harmonising definitions of major health indicators, giving the Member State a document to which to refer and quote when releasing indicator data.

How well has DG SANCO met the expectations of your country? What could have been done better? The HEIDI data Tool of DG SANCO is a very user friendly tool which can be referred to for health indicator comparison data - it is hoped that all ECHI shortlist indicators will be added to this tool, with continued quality control on the data included in HEIDI.

How could the functioning of the NIT have been improved? The core members of the NIT work together and meet regularly which was of great benefit locally. Other members were very co-operative corresponding via email.

Other comments? Having harmonised indicator definitions and joint data collection decreases the burden on the individual country. Furthermore avoiding major changes in the ECHI shortlist ensures preservation of data trends and reduces additional burden. EHIS based indicators may be threatened by planned changes to EHIS beyond 2014 and this issue could be addressed at higher levels including DG SANCO.

Future prospects after the Joint Action for ECHIM

Malta intends to continue collaboration with the international entities in disseminating these indicators.

NETHERLANDS

National Implementation Team

The Dutch NIT consists of the Dutch members of the ECHIM Core Group (the RIVM), and representatives of the RIVM project Zorggegevens.nl (health care data project), the Ministry of Health (Directorate Public Health and Directorate International Affairs), and the Dutch Statistical Office (CBS).

The topics of the NIT meetings have been the following: The first meeting (in February 2010): progress of the Joint Action for ECHIM, national implementation plan, Eurostat Regulation, EHIS, CBS work on improving data for three ECHI shortlist indicators. The second meeting (in November 2010): progress of the Joint Action for ECHIM, progress of national implementation (e.g. communication activities and Pilot Data Collection). The third meeting (June 2012): achievements of the Joint Action for ECHIM, continuation of ECHI activities after ending of the Joint Action both at EU and national level.

Progress made since 2008

Most important improvements: Up-to-date, detailed overview of data availability in the Netherlands has been done. Better national estimates by CBS are now available for number of physicians, number of nurses and low birth weight. Alignment of medical consumption module in national HIS with EHIS requirements. Data delivery for about 2/3 of requested indicators in ECHIM Pilot Data Collection. Multiple communication activities have been done, e.g. presentations and newsletters. Incorporation of the ECHI shortlist indicators in the National Compass website has been done, supplemented with the production of several International Policy Overviews.

Current shortcomings and hindrances: Problems with coverage of the Dutch hospital registry, also ongoing reorganisations of the registry and the data model applied. Scattered data ownership in the Netherlands and limited central steering on health information.

Actions currently ongoing: Use of ECHI Indicators in the international comparisons in the Compass and Atlas websites (continuous activity). Incorporation into the Dutch Focal Point project of national implementation activities related to improved coordination of data flows to international databases. Alignment and harmonisation of data collections for lifestyle determinants in the Netherlands.

Actions planned next: Several communication activities related to the publication of the final reports of the Joint Action for ECHIM.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? No change.

Data availability

EHIS first round: Not done.
EHES pilot: Done (full size HES).
Full scale (E)HES planned in the near future: No.
ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. Nationaal Kompas Volksgezondheid: nationaalkompas.nl/thema-s/internationaal/ -> European Community Health Indicators (ECHI).

6b) ECHI Indicators have been used in published public health reports and/or other publications. Harbers MM, Wilk EA van der, Kramers PGN, Kuunders MMAP, Verschuuren M, Eliyahu H, Achterberg PW. Dare to Compare! Benchmarking Dutch health with the European Community Health Indicators (ECHI). RIVM report number 270051011. Houten: Bohn Stafleu Van Loghum, 2008.

6c) ECHI Indicators have been included in public health monitoring and reporting systems in other forms. Nationaal Kompas Volksgezondheid, International Policy Overviews: nationaalkompas.nl/thema-s/ -> Internationaal.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? More effort should have been put in demonstrating the added value of the ECHI shortlist.

How well has DG SANCO met the expectations of your country? What could have been done better? Given the fact that we were in a Joint Action between the Commission and the MS, we had expected a more active role of DG SANCO, also at the MoH level. This lack of activity has contributed both at national and EU levels to insufficient political support and acknowledgement of the ECHI shortlist as the core set for the EU.

How could the functioning of the NIT have been improved? Taking into account the fact that in the Netherlands there is a historically grown situation of scattered data ownership, the Dutch NIT has functioned well.

Future prospects after the Joint Action for ECHIM

See sections "Actions currently ongoing" and "Actions planned next".

NORWAY

National Implementation Team

There is no official NIT as such, but the ECHIM contact persons are in the Department of Health Statistics at the Norwegian Institute of Public Health.

Progress made since 2008

Most important improvements: 1) More ECHI Indicators have been included in national Health Information System Norhealth, 2) Raised awareness of the importance of internationally comparable indicators, 3) New municipal health reports include many ECHI Indicators.

Current shortcomings and hindrances: None in particular.

Actions currently ongoing: Norwegian working group which will revise the WHO's perinatal indicators was informed about ECHIM's work. Ensured ECHIM compatibility for new Municipal Health reports, where subjects matched.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: Planned, pending on funding.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. ECHI Indicators are included in the national Health Information System, Norhealth database (www.norgeshelsa.no/norgeshelsa.no/norgeshelsa/?language=en) as well as in the new municipal indicators database (khs.fhi.no/webview, in Norwegian only). These websites include data for about 90% of the ECHI Indicators.

4) ECHI Indicators are explicitly mentioned in the most important national health data presentation websites. ECHI Indicators are mentioned e.g. in the Norhealth. In addition, indicators similar to or exactly the same as the ECHI Indicators have been used in many public health reports, although they are not explicitly called ECHI Indicators. Reports are available at www.fhi.no/eway -> Helsestatistikk -> Kommunehelsa -> Folkehelseprofiler (in Norwegian and Saami).

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? We have no complaints!

How well has DG SANCO met the expectations of your country? What could have been done better? We have had little direct communication, mainly through ECHIM leadership. All fine.

How could the functioning of the NIT have been improved? More resources -> More money.

Other comments? On the whole, happy with results and the work that brought us there.

Future prospects after the Joint Action for ECHIM ends

Keep using the ECHI Indicators, develop new ones according to the shortlist, mention ECHI in as many national and international meetings as possible. Participate in any continuing work.

POLAND

National Implementation Team

For the promoting and executing of the health indicators controlling and collecting the Polish Team undertook the cooperation with main actors in this process: Centre for Health Information Systems of Ministry of Health and Central Statistical Office and Institute of Public Health of Jagiellonian University.

The main activities of the NIT concern incorporating ECHI Indicators in the process of collecting and analysis together with Centre for Health Information Systems of Ministry of Health. The NIT members are members of advisory board of the electronic platform project and keep consulting the building process. The new system, while collecting many of the hospital and medical out-patient data will go much ahead from current medical data collecting, which is mainly made by filling specific paper forms for statistical system. While collecting in electronic form the data from primary, specialistic and hospital care it opens a new scope for gathering the information on incidence, service use, etc. It gives a chance that many of the ECHI shortlist indicators can be collected.

In 2011 the team members prepared for the Centre for Health Information Systems (CSIOZ) the comprehensive information of the way of collecting and calculations for the ECHI shortlist indicators, which can be a base for law regulations and with the aim to be incorporated into the conditions of the tender for data warehouse prototype.

The cooperation with Central Statistical Office allowed participating in the ECHIM Pilot Data Collection.

The Polish team presented the ECHI Indicators in the meetings in Central Statistical Office, Centre for Health Information Systems, Ministry of Health, in conferences and working meetings with experts in health care; built the health indicators web showcase in Polish and currently is preparing the publication on indicators for health care magazine.

Progress made since 2008

Most important improvements: Since 2008 the e-Health projects in Poland are much more advanced. Currently the health care information system in Poland undergoes two main changes: new Law and Justice Act for information system in health care and building the electronic platform supporting the requirements of the new law. Based on that, the e-Health system is going to start in 2014.

In May 2011 the new Law and Justice Act was signed changing the way of collecting and transferring the data and allowing collecting and archiving the data in electronic

way. The Act defines the organisation and operation of information systems in health care. In this system processed data are necessary for the conduct of state health policy, improving quality and increasing the availability of healthcare services and the financing of the tasks of health care. Information system is supported by the platform to share online services and digital medical records and electronic platform to collect, analyse and share digital content.

For the requirements according to the Act the electronic platform is being built. Responsible for creation of the platform is CSIOZ; it is an agency of the Ministry of Health and manages the largest Polish IT project co-funded from the European Union funds - the construction of "Electronic Platform Gathering, Analysis and Sharing of Digital Resources for Medical Events" (P1). For the other project called P2 the main objective is to "build a platform that allows sharing and integrating businesses in the area of health sector services of e-government". The specific objective of the Project is to promote electronic communication in the health sector between enterprises and public entities. For the data to come into system all of the health related institutions (primary care, outpatient clinics, hospitals, etc.) have to change the way of collecting and reporting the data in electronic form, which is currently the main process of transformation of the medical data management on this level.

Currently according to the new Act the new regulations of Ministry of Health are being created. They specify the details of the way and scope of collected data. Centre for Health Information Systems collects the requirements for the analytical power of the system from governmental, self-governmental, scientific and institutional users, and organises public unlimited tendering for particular parts of the system. Currently the Centre for Health Information Systems organises open tendering for building the P1 Projects.

Actions currently ongoing: Currently the work of the NIT concentrates on incorporating the possibility to supply gathering of raw data for ECHI Indicators from the e-Health system built in the P1 Project and extract them in the automatic way in the P2 Project. Both projects are in the last phase of collecting the specifications, on some parts of the system there are contracts already signed. The change of the health care system is planned to be evolution, so the further modifications are planned. The most demanding part is to change the way of collecting data: from paper to electronic. Based on that, the special algorithms build in the system will allow calculating and controlling the ECHI Indicator data.

Actions planned next: The next action is to specify the indicators which will be collected and/or calculated in the P1 and P2 system; specify the mechanisms for quality control, analysis and presentation.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A lot.

Data availability

EHIS first round: Done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: Yes, but funding is open.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

- 5) The use of ECHI Indicators in national health monitoring and reporting systems is stated in the plans for future actions. The ECHI Indicators are included in working documents for the specification for Platform P2. Currently the analysis is made about which of the ECHI Indicators are possible to be collected and calculated on the automatic way in the e-Health system.
- 3) National ECHIM website: www.echim.pl and www.zdrowiepolakow.pl/echim.

Lessons learned, conclusions and recommendations:

How well has ECHIM met the expectations of your country? What could have been done better? Currently the main issue in Poland is the jump from the paper documentation to electronic. In the first moment there are no big changes in the scope of data gathering, and the new system has to fulfill current data collection law requirements. However, the electronic collection and accessibility of it will allow building ECHI Indicators. Till end of 2012 the feasibility study of the specification of ECHI Indicators collected in the new system will be finished.

How well has DG SANCO met the expectations of your country? What could have been done better? The CSIOZ understands the importance of ECHI Indicators, and is cooperating closely in the implementation.

How could the functioning of the NIT have been improved? The functioning of NIT can be improved if acting within the financed project. Application approaches to the financing institutions are being made.

Future prospects after the Joint Action for ECHIM

The Polish Team participates in the process of building the specifications for building the electronic health information system in the part of ECHI. It also builds the groups of institutions interested in collecting, controlling and analysis of the data and tries to get financing from the national fund systems.

The Polish Team is willing to cooperate in further initiatives concerning health indicators. After the implementation of ECHI the next challenge will be to improve the decision making in health care based on the ECHI Indicators.

PORTUGAL

National Implementation Team

The Portuguese NIT should be based on INE (Statistics Portugal) and DGS (Directorate-General for Health) but was never formalised. Only some meetings were held. The main topics were how to improve either data collection or data analyses.

Progress made since 2008

Most important improvements: The ECHI Indicators have become a reference to monitor health programs. Their collection is also intended to provide data to international organisations, including community needs of public health information. In this sense there has been an expansion in the adoption of indicators that can integrate our system of health information.

In general, the shortcomings and obstacles still exist. In recent years automatic procedures were introduced in the circuits of the mortality data. This initiative caused successive delays in the dissemination of mortality statistics. Also since 2008 substantial changes to the framework in the area of health institutions were undertaken. These measures also had a significant impact on production of health statistics, causing significant delays.

Recently (April 2012), a report about the state of national health statistics was concluded. It was prepared by a Working Group that included the main institutions with responsibility for collection and processing of health data under the auspices of the Statistical Council. The report characterises the current situation, outlines the weaknesses of the health information system and proposes a set of recommendations to improve national health statistics. We hope to implement the recommendations proposed in this report at the beginning of 2013.

Actions currently ongoing: Our priorities were to improve mortality data. During the last quarter of the current year the new Information System of the Death Certificate will advance, and it should be extended to all hospitals in early 2013. This system should also ensure a better quality of mortality data, allowing a reduction in the number of ill-defined causes of death. Implementation of morbidity statistics is also ongoing.

Actions planned next: To proceed with the implementation of EHIS and EHES in order to collect data on health determinants.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability:

EHIS first round: Not done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: 2014.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made. The adoption of ECHI Indicators is one of our objectives with regard to the indicators panel to be released by the national health statistics. In this sense, we will propose to extend this list of indicators to information areas not yet covered.

Some institutions belonging to the Ministry of Health publishes regularly ECHI Indicators at their reports and studies (www.dgs.pt and www.insa.pt. Statistics Portugal publishes key facts on health care as a part of the Statistical Yearbook (www.ine.pt). These websites disseminate ECHI Indicators, but ECHI or ECHIM is not explicitly mentioned. There is a recommendation for it to happen; hopefully it will be adopted in the near future.

Lessons learned, conclusions and recommendations

How could the functioning of the NIT have been improved? In Portugal, the role of the NIT was not formalised. Only punctual contacts have been held between the entities involved, whenever justified. Until now it was not possible to further expand the list of indicators based on ECHI. Probably, the lack of a strong NIT is the main reason.

Future prospects after the Joint Action for ECHIM

The ECHI Indicators are a useful tool. It is possible to collect and disseminate a set of data allowing a comparison to a significant number of health indicators. In our case it was possible to respond to about 80% of the proposed indicators. In some areas our responsiveness is smaller, in particular as regards the health status.

ECHI will continue to be a reference in terms of data collection at national level. We are preparing a HIS taking into account the capacity to respond to some of the ECHI Indicators, and also to provide accurate information to international comparisons.

ROMANIA

National Implementation Team

The members of the NIT are part of the Center for Health Policy and Public Health, Institute for Social Research, Faculty of Political, Administrative and Communication Sciences, Babes-Bolyai University, Cluj-Napoca. Founded in 2005, Center for Health Policy and Public Health (CHPPH) is a research center within the Institute for Social Research, Faculty of Political, Administrative and Communication Sciences, Babes-Bolyai University. The Center is aimed at developing and supporting interdisciplinary collaboration for needs assessment, planning, implementation and evaluation of healthrelated programmes that respond to the complex needs of community and individuals. Our Board of Advisors is formed by professionals with advanced qualifications in public health, health policy, maternal and child health and community and behavioural health, who participate in the development of managerial and research skills of our Center. CHPPH encourages collaboration among professionals and organisations actively involved in valuable initiatives in public health or health-related fields. The goal of CHPPH is to become a premier academic resource in public health for Central and Eastern Europe. Our studies are population-based, data-driven and with direct policy relevance to health policy makers.

The background of members of the NIT range from health systems, maternal and child health, injury and violence prevention, to health economics, health management and project management.

The team members met regularly, to carry out the work related to health indicators reporting and monitoring. Moreover, part of the team members interacted with other activities and projects related to health indicators. One such example was the European Injury Database project.

Progress made since 2008

Most important improvements: The Joint Action for ECHIM created the framework for establishing and further developing the National Team of Experts, whose members initially met in July 2010.

Current shortcomings and hindrances: The implementation of ECHI shortlist in our national indicator systems is still a long and difficult to acquire process. Currently, few of the indicators on the ECHI shortlist are included in national indicator systems. Moreover, Romania is not formally using the ECHI Indicators in the public health reporting and reports. So far, the perspectives are not that things will change in the near future (before fall 2012).

Actions currently ongoing: Most of the reasons for the aforementioned situation are related to the lack of will at a system level. However, the change will require extensive efforts at all levels of data collection. Nonetheless, a significant change should take place at the level of Ministry of Health. The recognition from the Ministry of Health of the progress realised by ECHIM so far and its recommendations for the data collection entities, also translated in the national legislation, is needed for the process to succeed.

Actions planned next: The Romanian NIT offers its total support for the further advancement of ECHI shortlist.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? No change.

Data availability

EHIS first round: Done. EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? The Romanian NIT has been consistently supported in its work by RKI, Berlin, especially during the Pilot Data Collection process.

How well has DG SANCO met the expectations of your country? What could have been done better? We did not interact directly with DG SANCO, and hence we can not assess its performance. However, we did interact with European Commission representatives during a workshop at the EUPHA Conference in Amsterdam, 2010. The presentation of the new HEIDI Data Tool, as well as the session dedicated to the Joint Action on ECHIM, were interesting opportunities to share our experience with the implementation of ECHI Indicators.

How could the functioning of the NIT have been improved? We would have benefited a lot more from a more favorable context in the field of health indicators collecting and reporting process.

Future prospects after the Joint Action for ECHIM

The Romanian NIT has expressed its interest to be involved in the proposed ECHI Network, hence contributing to the advancement of including ECHI Indicators in the Romanian data collection system.

SERBIA

National Implementation Team

The NIT, in the narrow sense, consists of members from the Institute of Public Health of Serbia (IPH). The meetings were unscheduled.

Progress made since 2008

Current shortcomings and hindrances: Lack of awareness of the importance of the ECHIM project, not of the single indicators or groups comprising the ECHI shortlist.

Actions currently ongoing: Full compliance with ECHI shortlist indicators from EHIS questionnaire (preparation of National HIS 2012 is ongoing).

Actions planned next: To form, officially, the National Implementation Team.

Country expert's own assessment: How have the prerequisites for implementation improved since 2008? No change.

Data availability

EHIS first round: Not done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Partly done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made. Data for some ECHI Indicators are available via following links, but indicators that are similar to or the same as the ECHI Indicators are not explicitly mentioned nor identified by name or label "ECHI".

National DPS:

www.batut.org.rs/download/healthindicators.zip,

Health Statistical Yearbook of Republic of Serbia 2010:

www.batut.org.rs/download/publikacije/pub2010.pdf,

National Health Survey Serbia:

www.batut.org.rs/download/publikacije/National%20Health%20Survey%20 Serbia%202006.pdf.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? All was just as it should be; in case of Serbia, only field visit from the ECHIM team could have been of great help. Meetings with main stakeholders could have helped IPH team to bring all main institutions and groups together.

How well has DG SANCO met the expectations of your country? What could have been done better? No more could be expected having in mind status of Serbia regarding EU membership.

Future prospects after the Joint Action for ECHIM ends

If ECHIM becomes a part of Eurostat interests and agenda, all parties involved (EU, the countries themselves) will gain a lot today and in the future!

SLOVAKIA

National Implementation Team

The Slovak NIT consists of 7 members, who are representatives of various governmental and non-governmental organisations, local authorities and academia. The ECHIM contact person in Slovakia has been situated in Institute of Public Health and Graduate School KISH, Safarik University, after the re-launch of ECHIM in Slovakia.

Given the fact that the new NIT was set up only in November 2011, no formal meetings of the NIT took place. All the communication between the experts has been through e-mails, telephone and individual meetings with the team members.

Progress made since 2008

Most important improvements: 1) Setting up the new NIT in November 2011, 2) Completing the Indicator Data Availability Sheet, 3) Launching the national website providing basic information on ECHIM, ECHI Indicators, HEIDI etc., 4) Dissemination activities at various levels - governmental organisations/decision makers, academia and research organisations, non-governmental organisations - through distribution of ECHIM leaflets, information on websites (Safarik University in Košice, Slovak Public Health Association and SAVEZ), and face-to-face discussions with stakeholders.

Current shortcomings and hindrances: Slovakia is a country with long tradition in health statistics; it has good infrastructure for data collection and lots of data exist. Still, there are things which might be improved. The fields which are a challenge for full implementation of ECHI indicators are 1) Hindrances associated with shortcomings in political will and awareness about the importance and relevance of sustainable, systematic and internationally comparable health indicators monitoring for public health status assessment and public health forecast, 2) Shortcomings in coordination of activities between the various organisations collecting the data and their databases (e.g. level of education cannot be linked with mortality data in Slovakia), 3) Shortcomings in education and training among public health professionals in the field of data collection methodology, reporting, and publishing (especially publishing internationally), 4) Lack of resources - funds, manpower, 5) Language barrier; many professionals working in this field do not speak English which may be a hindrance of better use of available data as well as better reporting and publishing within the international context.

Actions currently ongoing: The NIT currently works on raising awareness on the importance of health indicators monitoring in different stakeholder groups at national and regional levels; governmental and non-governmental organisations, academia, public

health authorities, etc. Concrete examples: 1) Discussions on ECHIM have been carried out at the affiliating organisations of the NIT members, 2) During the PHIRE project (DG SANCO) meeting of the public health professionals held at the Ministry of Health in Bratislava on April 25th 2012 – at this meeting the State Secretary of the Ministry of Health, director of the WHO Country Office in Slovakia and representatives from the national grant agencies were present, 3) Ongoing updates of the national ECHIM website, 4) Activities on finding resources for successful implementation of the ECHI Indicators.

Actions planned next: Given fact that the Slovak NIT was set up only few months ago the actions to be planned to be done for next period are the same as mentioned in the paragraph above. In addition, translation of the ECHIM leaflet into the Slovak language is planned. Also, widening of the NIT members is planned; in particular we plan to include employees of the National Health Information Centre (www.nczisk.sk) as well as Ministry of Health of SR (www.health.gov.sk). In the long-term perspective we plan to work systematically on raising awareness on importance of establishing a regularly maintained national database with data for indicators on national and regional level, including data presentation tools. Also, in the long-term perspective we plan to work on better access to data for public health professionals and using ECHI Indicators in national and health policy planning; note: the latter is planned to be done in particular with the Department of Analysis, Conceptions and Strategies at the Ministry of Health of Slovak Republic.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: 2011–2012.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

- 3) National ECHIM website: echim.savez.sk.
- 2) Only some steps recommended by the Joint Action for ECHIM have been made. Given the fact that the work on ECHIM in Slovakia was re-launched in November 2011 with the newly established NIT, the full implementation plan could not be carried out in such a short time period. However, the first draft of the Indicator Data Availability Sheet has been prepared.

The main activities of NIT included rising awareness on health indicators monitoring and introducing ECHIM to national administrators, decision makers and planners as well as wider public health community via face-to-face communication, distribution of the ECHIM leaflet and the ECHIM website.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? The main idea of the Joint Action for ECHIM, i.e. the actual implementation of the ECHI Indicators in Member States is excellent and the ECHIM team was very supportive throughout the whole process. The communication with the secretariat was quick and comprehensible. We also acknowledge the use of web-based platform (the ECHIM public website as well as the extranet) for sharing all important ECHIM documents.

How well has DG SANCO met the expectations of your country? What could have been done better? In general projects dealing with health indicators monitoring comparable across EU Member States are of great importance and relevance for effective actions to be taken to improve health of EU citizens. The ECHIM project builds on 14 years of experience and provides a good knowledge base and network for implementation of health indicators monitoring in EU member states. Therefore, it is a pity that in the Joint Action budget no funds were allocated for work of national team members. Such demanding task as successful implementation of ECHI in the Member States cannot be done purely in non-working hours of the NIT members, neither purely relying on resources of employers of these experts.

How could the functioning of the NIT have been improved? It is hard to comprehensively evaluate the work of the NIT operating within this short period of time. Still, in general the members of the NIT were very cooperative and helpful in all consultations, e.g. regarding the Indicator Data Availability Sheet, ECHIM reports and in the process of awareness rising, but it was from a great deal also due to previous successful cooperation on other projects in the past with these experts. However, the question is whether we would similarly be successful in cooperation with members of the NIT with whom we have had no previous experience from work on common projects and when no reward for their work is available.

Future prospects after the Joint Action for ECHIM

Despite the fact that the Joint Action for ECHIM officially ends we plan to use the potential of the ECHI Indicators and the knowledge gained during this project as well as previous ECHI projects, and in Slovakia we plan to continue in rising awareness on

health indicators monitoring using comparable data across countries. We also seek to work on further implementation of the ECHI Indicators. In addition, we plan to work on using ECHI Indicators in national and health policy planning and to inspire public health professionals to produce similar public health status and forecast reports as e.g. the Dutch Public Health Status and Forecasts reports and the Dare to Compare report.

In order to reach these goals we plan 1) To continue in cooperation with the RIVM, the Netherlands; THL, Finland and other strategic organisations. 2) To become active members of the EUPHA section Public Health Monitoring and Reporting, 3) To actively seek for resources (research grants, other resources) on national and international level to continue in the process of implementation of ECHI Indicators, 4) To continue in rising awareness on health indicators monitoring through face-to-face contacts, website, organising workshops/seminars such as e.g. during the planned 1st V4 Public Health Conference to be held on May 9–10, 2013 in Košice, Slovakia (note: V4 = Visegrad Four Countries: Czech Republic, Slovakia, Hungary, Poland).

SLOVENIA

National Implementation Team

The NIT consists of experts from National Institute of Public Health, National Statistical Office, Ministry of Health, National Health Insurance Institute, and National Cancer Registry. NIT has had 2 meetings; topic discussed was the national ECHIM implementation plan.

Progress made since 2008

Most important improvements: ECHI indicator system helps in improving national data collections (several data collections are under revision) and in improving health information reporting. The ECHI Indicators have been used in preparation of different reports. The ECHI indicator system was used to prepare a proposal for new law on data collection on health and health care. The National Institute of Public Health (NIPH) will develop the website to present different indicator sets (WHO Health for all database, ECHI Indicators, Diabetes indicator set, Child health indicator set, Perinatal health indicator set). Cross-national comparative data have become more widely available. These data are being used in comparisons to inform policy development. There is more cooperation between NIPH and National Health Insurance institute in the use of data available.

Current shortcomings and hindrances: Lack of support, lack of finances and manpower at the NIPH. The proposal to have a working group at the NIPH dedicated to ECHI implementation was not taken up. The members of the project team that left the NIPH were not replaced. At the NIPH the ECHI implementation should be included in the plan for the year 2013 so that all necessary work would be completed. In the following years the resources to regularly report and update the indicators should be available.

To further enlarge the number of ECHI Indicators there should be legislative changes and resources to develop new data sources. Certain indicators are available only at national level (e.g. indicators based on EHIS). It would be important to have the regional level also.

Actions currently ongoing: ECHI Indicator system is currently being used in improving national data collections (medical birth registry, diabetes indicator set as data collections are under revision).

Actions planned next: The NIPH website to be supplemented by ECHI Indicator set in the 2013.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Done. EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

5) The use of the ECHI Indicators in national health monitoring and reporting systems is stated in the plans for future actions. Use of ECHI Indicators is stated in the development plans for future of the National Institute of Public Health of the Republic of Slovenia, For year 2010, see www.ivz.si/letna porocila dokumenti?pi=3& 3 Filename=1305. pdf& 3 MediaId=1305& 3 AutoResize=false&pl=172-3.3. Plan for years 2011 and 2012 have not been published on the internet but ECHIM is explicitly mentioned in those as well.

2) Only some steps recommended by the Joint Action for ECHIM have been made. ECHI Indicators have been used in published public health reports although the term ECHI is not mentioned explicitly in these reports. These reports can be found at the website of Institute of Public Health of the Republic of Slovenia (www.ivz.si).

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? We are thankful for all the support and instructions from ECHIM. We organised the ECHIM Core Group meeting in Ljubljana in September 2009 and we are thankful to all the participants that communicated with the media in Slovenia. The meeting increased the visibility of ECHIM in Slovenia and stressed the importance of international comparability of data.

How well has DG SANCO met the expectations of your country? What could have been done better? Initially we expected more support from DG SANCO. It proved very difficult to make progress in the project as the contact persons at DG SANCO were changing very often.

How could the functioning of the NIT have been improved? The functioning could have been improved if the members would not be replaced by new members that were actually not working on the health monitoring and reporting or in the use of health indicators.

Other comments? The main issue at the national level was the change from the initial implementation plan to proposal for the new law on data collection on health and health care. The proposal never entered the parliamentary procedure and therefore the implementation work was less successful than expected initially. If the new government will start the process to change the law, we will use the prepared material and revise it according to ECHIM conclusions and recommendations. Reorganisation of the NIPH in December 2010 and reduction of the project team also slowed down the implementation process considerably.

Future prospects after the Joint Action for ECHIM

To ensure ECHI as a sustained process there should be more support from the NIPH to finance permanent activities necessary. This would be possible if DG SANCO and MS would work together to make ECHIM a priority on the international and national level.

SPAIN

National Implementation Team

The NIT in Spain is organised on two levels: First level is the Core/Permanent group holding the secretariat and representation in front of the project and international organisations. Members of this group are experts based at the Deputy Directorate for Health information and innovation (formerly Health Information Institute) of the Ministry of Health, Social Policy and Equity (MoH), They are data correspondent or focal points for different organisations (WHO, Eurostat, OECD, EU, etc.). National Statistics Institute is also represented in this Core group.

Second level (expanded group) includes a representative from each of the 17 Autonomous Regions in Spain plus representatives coming from Public Health General Directorate and other relevant stakeholders.

Progress made since 2008

Most important improvements: Creation of National set of Key Health indicators (INCLA-SNS). Creation and meetings of the NIT. Participation in EHIS round 1.

Current shortcomings and hindrances: Lack of human resources.

Actions currently ongoing: Review of list of National set of Key Health indicators.

Actions planned next: Implementation of centralised information system on primary care will improve availability of data regarding morbidity based on registries.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? Moderately.

Data availability

EHIS first round: Done.
EHES pilot: Not done.
Full scale (E)HES planned in the near future: No.
ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

6a) ECHI Indicators have been included in national health indicator databases or datasets. ECHI Indicators (approximate 90% of them) have been included in the (public)

Spanish health monitoring and reporting system (www.msssi.gob.es/en/estadEstudios/estadisticas/sisInfSanSNS/inclasSNS_DB.htm), but no actual reports based on ECHI Indicators have been published yet.

5) The use of ECHI Indicators in national health monitoring and reporting systems is stated in the plans for future actions. There are a number of documents referring to ECHI in terms of harmonisation and reporting, e.g. (all in Spanish): www.msssi.gob.es/estadEstudios/estadisticas/docs/metod_modelo_cmbd_pub.pdf, www.msssi.gob.es/estadEstudios/estadisticas/sisInfSanSNS/docsInclaSNS2011/INCLASNS_2011_MetodyFichas.pdf, www.msssi.gob.es/organizacion/sns/planCalidadSNS/pdf/equidad/observatorioEuropeo/InformeHiT_SP.pdf.

4) ECHI Indicators are explicitly mentioned in the most important national health data presentation websites.

www.msssi.gob.es/en/estadEstudios/estadisticas/sisInfSanSNS/inclasSNS_DB.htm.

Lessons learned, conclusions and recommendations

How well has ECHIM met the expectations of your country? What could have been done better? ECHI framework has been fundamental to develop the Spanish set of key health indicators.

Future prospects after the Joint Action for ECHIM

None specified.

SWEDEN

National Implementation Team

In a proposal to the Ministry of Health and Social Affairs, the National Board of Health and Welfare (NBHW) suggested to establish a team under the leadership of NBHW. The team should include expertise from adjoining authorities. The team shall investigate how the Swedish authorities will contribute to the European statistical system and how it will be organised in the future.

Progress made since 2008

Actions planned next: Automatise the production of indicators.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? No change.

Data availability

EHIS first round: Not done.

EHES pilot: Not done.

Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Not done.

ECHI implementation status in June 2012

Only some steps recommended by the Joint Action for ECHIM have been made.

Lessons learned, conclusions and recommendations

Other comments? The Heidi Data Tool is used rather in a less extent than other international databases because it is not user-friendly.

Future prospects after the Joint Action for ECHIM

As we have pointed out earlier the HEIDI Data Tool is not user-friendly. We hope that the tool will improve in the future. HEIDI should be used more frequently if it was translated to Swedish. For example people use WHO's mortality database more often than HEIDI.

We earlier informed that EHIS has not been carried out yet in Sweden, but it will be carried out in 2014. The NBHW have not still been provided with financing for EHIS. This uncertainty may result that EHIS will be carried out first in 2015 instead of 2014.

SWITZERLAND

National Implementation Team

In Switzerland, no specific NIT has been set up yet, since Switzerland has been participating in ECHIM only since 2011. The first participation took place at the second meeting of the ECHIM Extended Core Group Meeting, in March 2011.

Progress made since 2008

Most important improvements: Since March 2011 (first participation from our country in ECHIM project), the main work in the name of ECHIM was to give data to complete the Pilot Data Collection.

Actions currently ongoing: Great priority is given to the implementation of the national HIS from 2012, the Swiss Health Survey, which began in January and will last till end of the year 2012.

Country experts' assessment: How have the prerequisites for implementation improved since 2008: A little.

Data availability

EHIS first round: Done.
EHES pilot: Not done.
Full scale (E)HES planned in the near future: No.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made. ECHI Indicators are not included in the national health indicator system. Though ECHI shortlist is not being used as such, specific indicators which are part of ECHI shortlist are being used as part of public health reporting in Switzerland. For example, a majority of indicators are principally covered by the Swiss Health Survey, a national HIS made since 1992, or by other statistics related to health care or mortality.

Lessons learned, conclusions and recommendations

Other comments? Despite Switzerland being quite "new" in ECHIM (step-in 2011, EFTA country), we are very interested in enhancing the international cooperation. It is in this perspective for example that we participated in the Pilot Data Collection.

Future prospects after the Joint Action for ECHIM

As stated in the previous paragraph, we are very interested in participating for example in a European network about ECHI Indicators.

UNITED KINGDOM

National Implementation Team

The UK International Health Statistics Group serves as the UK NIT. This group consists of representatives from the various bodies across the UK who are involved in the production and dissemination of health statistics, including the Health and Social Care Information Centre (who co-ordinate the return of UK-wide data to EU bodies), the Office for National Statistics, the Department of Health in England and equivalent colleagues from each of the devolved administrations of the UK (Scotland, Wales and Northern Ireland).

The group meets approximately 3 times a year to discuss a variety of international statistical topics including ECHIM, EHIS and Health Accounts. In the future, the intention is for there to be sub-groups of this group which deal with particular topics, e.g. a UK-wide steering group on EHIS.

Progress made since 2008

Most important improvements: As it was identified that none of the existing health surveys in the UK are directly comparable with the requirements for the European Health Interview Survey (EHIS), the Office for National Statistics have taken work forward on behalf of the four countries of the UK to scope costs and to plan implementation for a new UK-wide health survey. This survey will generate UK data for many of the indicators within the ECHI shortlist.

Current shortcomings and hindrances: The four countries of the UK each have their own health systems and statistical systems, and providing indicators for the UK as a whole continues to be difficult, especially with limited resources. The UK is currently unable to instigate the collection of new data, or change current collections, solely for ECHIM so data can only currently be provided for ECHI Indicators which can be produced using existing data sources in the UK: either national surveys or administrative data.

Actions currently ongoing: Costing / scoping of UK-wide health survey to provide requirements of EHIS - see above.

Actions planned next: Implementation of UK-wide health survey to provide requirements of EHIS - see above.

Country experts' assessment: How have the prerequisites for implementation improved since 2008? A little.

Data availability

EHIS first round: Not done.

EHES pilot: Done.

Full scale (E)HES planned in the near future: Anticipated to be every 5 years.

ECHIM Pilot Data Collection: Done.

ECHI implementation status in June 2012

2) Only some steps recommended by the Joint Action for ECHIM have been made. The ECHI shortlist itself is not integrated into the UK's national indicator systems though a number of the individual indicators are already available within them. The UK has a well established system for public health reporting based on established datasets. Therefore, unless individual ECHI Indicators are already included in these existing datasets, they are not used in national public health reporting

Lessons learned, conclusions and recommendations:

How well has ECHIM met the expectations of your country? What could have been done better? ECHIM has delivered important work in establishing a shortlist of indicators and attempting to harmonise definitions to create data which are comparable across EU Member States, and publishing some data for these via the HEIDI Data Tool. The data that have been published (and will continue to be published) and the detailed indicator definition sheets will continue to be useful to Member States in the years to come

How well has DG SANCO met the expectations of your country? What could have been done better? It has been essential to have the vision and leadership for ECHI that has been provided by DG SANCO throughout the ECHI project so we thank them for their efforts.

Future prospects after the Joint Action for ECHIM

The UK support the aim of retaining the capital built up through the ECHI projects. Given limited resources, we think it is best to focus on making data / metadata available for existing ECHI Indicators, rather than developing existing or new indicators. We are confident that much could be achieved within a minimal level of resourcing, but it would inevitably involve some "central" activity to develop / maintain the limited infrastructure required (in particular HEIDI).

The UK is willing to continue providing comments on this work but any provision of data on a regular basis that is not readily available through publications will need consideration of the resource required to collect and collate it. Looking forward the implementation of EHIS for the year of 2014 will greatly aid the availability of data for ECHI.