

# Working towards a sustainable ECHI shortlist

D8.2 'Sustainable ECHI process from technical, content and user perspective', May 31st 2021

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## **Executive summary**

This document is Deliverable 8.2 of the Joint Action on Health Information (InfAct: Information for Action!) with project number 801553 and co-funded by the Health Programme of the European Union. In this document, a sustainable future for the European Core Health Indicators (ECHI) shortlist is investigated.

The ECHI shortlist provides a 'snapshot' of European public health and health care, and supports development and evaluation of public health policy by providing a solid information base. It is the result of a collective Member States (MS) effort, i.e. four consecutive EU-wide projects between 1998 and 2012, responding to the European Commission's call to establish a shortlist of public health indicators which would serve as the core of a European public health monitoring system.

DG SANTE currently maintains a webpage and an interactive data and visualization tool, which is filled by Eurostat. Since 2006, the ECHI shortlist formed the basis for EU-wide data collections, such as the European Health Interview Survey (EHIS) or the EU Statistics on Income and Living Conditions (EU-SILC). Using ECHI to compare public health aspects between countries adds value to both EU health policy and national health information systems.

Despite the recognition of its value by health information experts at EU and national level, neither formal updating procedures nor a formal and sustainable governance system are in place to support the ECHI shortlist. This puts previous efforts at risk. ECHI could become an example of a product for which a need was identified, that was successfully developed by MS on a project basis, but that is not kept up-to-date and thereby loses its value, because there is no infrastructure to sustain it.

Therefore, InfAct aims to provide practical suggestions and recommendations that will benefit and improve the future use and sustainability of the ECHI shortlist. In this context, InfAct identified four focus areas for its recommendations:

#### 1. Procedures and governance

InfAct drafted update procedures based on criteria that were developed by the previous ECHI projects. A draft governance structure is suggested, with roles and responsibilities for both EU structures and MS. The final product for this focus area is a draft structure for sustainability. It shall be discussed by DG SANTE and DG ESTAT and MS and, after revision and acceptance by both, be effectuated. This focus area is described in chapter III.

#### 2. Modernising the content and/or structure of the list

InfAct collected options for new indicators in the shortlist and developed the idea to change the structure of the shortlist and include a flexible subset of indicators to accommodate emerging information needs. The final product is a list of topics and a proposal for a format change that can be fed into a MS-wide update procedure. This focus area is described in chapter IV.

#### 3. Technical updates of the metadata

InfAct reviewed the ECHI metadata (documentation sheet, indicator operationalisations, comparability sheet), summarized the findings into draft recommendations and applied changes to the metadata. The final product is a set of individually updated metadata with accompanying recommendations that can be fed into a MS-wide update procedure for discussion and finalisation. This focus area is described in chapter V.



#### 4. Improving visibility and communication

InfAct expanded the ECHI information repository that was developed under the BRIDGE Health project as a source of structured ECHI collective memory and input. This was made available on the European Health Information Portal. InfAct prepared a communication plan to increase ECHI visibility. The final product is a collection of tools MS can use to increase attention for and use of the ECHI, including a template for performing country comparisons. This focus area is described in chapter VI.

In summary, this report provides recommendations for the sustainable continuation of the ECHI list, options for adapting the ECHI-content, options for technical updates of the ECHI metadata, and proposals for improving the visibility of the ECHI-list and its actual use. InfAct concludes that for the ECHI shortlist to be a useable indicator set at the heart of European Health Information, it needs to be

- embedded in a sustainable infrastructure
- under sustainable governance and procedures
- regularly updated, taking into account technical and policy developments
- robust, stable and visible, and yet
- flexible to current developments

InfAct's main recommendation is that the ECHI shortlist shall be continued under a set of formal procedures, clear governance and security, to be the relevant and useable core set it was designed to be. European Commission Directorates (DG SANTE and DG ESTAT in particular) are important partners in this, with a role in securing policy relevance, technical commitment, financial sustainability and possibly legal status. The Distributed Research Infrastructure on Population Health (DIPoH) could also play a role in a formal structure for the ECHI shortlist, providing a sustainable infrastructure and technical developmental contributions, in liaison with EC and the MS.

#### Key points

- The ECHI shortlist adds value to European population health and healthcare systems by delivering a solid information base on public health and health care trends and developments in Member States
- A major drawback of the ECHI short list is that it lacks a sustainable mechanism to maintain and improve it, despite having European regulations in place and updated regularly to ensure collection of ECHI-based health data in the EU.
- This report offers practical suggestions to improve the lists' governance, content and structure, metadata and visibility.
- This report and other project-based initiatives cannot replace an officially recognized formal approach.
- InfAct suggests that "adoption" of the ECHI by the EC and MS/AC, and setting up official governance and procedures in a sustainable infrastructure is urgently needed to benefit EU and country health information systems
- InfAct recommends that content and suitability of the list need to be reviewed regularly (e.g. every 3 years).
- InfAct recommends that the metadata sheets need to be reviewed regularly (e.g. every 3 years) and disseminated in an easily accessible way.
- InfAct suggests that an ECHI visibility and communication plan will help MS/AC and EU get more out of ECHI and stimulate performing international comparisons.



## <u>Glossary</u>

- ECHI: European Core Health Indicators
- <u>BRIDGE Health</u>: BRidging Information and Data Generation for Evidence-based Health policy and research (2015-2018; https://www.bridge-health.eu/) Its aim was to prepare the transition towards a sustainable and integrated EU health information system for both public health and research purposes.
- <u>DIPoH</u>: Distributed Infrastructure for Population Health (DIPoH applied for the 2021 ESFRI road map). This infrastructure plans to support high-level health research by facilitating the identification, the access, the assessment and reuse of data; combine a central coordination office, national nodes across EU countries and pan-European research networks on specific population health topics; and deliver services by providing a one-stop shop for population health data, developing innovative methods, building health information capacity and developing knowledge translation research. DIPoH already has a practical roll-out: PHIRI, the Population Health Information Research Infrastructure for COVID-19 (2020-2023; https://www.phiri.eu/).
- <u>European Health Information Portal</u>: the one-stop shop facilitating access to population health and health care data, information and expertise in the European Union, available at <u>www.healthinformationportal.eu</u>.
- <u>Health information</u>: All organised and contextualised data about the health status of populations, the factors that determine health status, the performance of healthcare, and prevention, that is fit-for-use and contributes to decision-making.
- <u>InfAct</u>: Joint Action for Health Information, Information for Action! (2018-2021; https://www.inf-act.eu/). InfAct builds towards a sustainable and solid infrastructure on EU health information and strengthens its core elements based on capacity building, health information tools and political support. InfAct builds on BRIDGE Health.



## InfAct: Working towards a sustainable ECHI shortlist

## I. Introduction

## A. Overall aim of this report and the work it describes

This report describes the outcomes of task 8.2 of the Joint Action on Health Information (<u>InfAct</u><sup>1</sup>). The aim of this task is to generate practical input for the improved and sustainable use and usability of the ECHI shortlist. The report includes suggestions and recommendations with regard to sustainability, content, metadata and communication. In addition it also makes reference to a repository created in an online environment.

## B. Expert consultation

The report builds on previous recommendations by ECHI projects and external evaluations (Verschuuren 2012, PHEIAC 2013, Economisti Associati 2017, Fehr 2018, Tijhuis 2018, see also Annex Intro 2). Throughout the current task, experts have also been consulted. Well-appreciated input was provided by DG ESTAT/SANTE, InfAct partners and a small advisory group with different backgrounds and working contexts. Furthermore, input was also sought during the InfAct "Technical Dialogues"<sup>2</sup> and the 2020 World Conference on Public Health.

## C. How to read this report

This report starts with a brief history of the ECHI shortlist and its position in the European Health Information landscape. It then proceeds with four focus areas that were identified, each with its own short introduction, approach section and resulting recommendations:

- 1. procedures and governance for a sustainable ECHI-system (chapter III)
- 2. modernising the ECHI-content and/or structure of the list (chapter IV)
- 3. technical updates of the ECHI-metadata (chapter V)
- 4. improving the visibility, usability and communication for ECHI (chapter VI)

Chapters VII and VIII briefly discuss possible next steps as well as implications and limitations. The report ends with overall conclusions and recommendations in chapter IX.

More detailed relevant information is provided in the Annexes. These contain

- 1. ECHI indicators with links to the ECHI tool (Background 1)
- 2. Commonalities and differences between the ECHI and JAF Health list (Background 2)
- 3. An embedded file containing an overview of recommendations from previous ECHI projects and external ECHI reviews (Background 3)
- 4. Suggestions for additions, deletions or replacements (Content 1)
- 5. Environmental health (PFAS) as a potential new ECHI-indicator (Content 2)
- 6. Health literacy as a potential new ECHI-indicator (Content 3)
- 7. Reflections by the Joint Action on Health Equity Europe (Content 4)
- 8. A documentation sheet template (Technical 1)
- 9. Revised ECHI metadata sheets (Technical 2)
- 10. An example of an EHIS change between wave 1 and 3 (Technical 2)
- 11. A list of 2022 EU-SILC health module variables (Technical 3)
- 12. A list of general recommendations resulting from the technical review (Technical 4)
- 13. A list of indicator specific recommendations resulting from the technical review (Technical 5).
- 14. Update checklist for the ECHI information repository (Visibility 1)
- 15. ECHI user-friendly overview (Visibility 2)

<sup>&</sup>lt;sup>2</sup> https://www.inf-act.eu/InfAct-outcomes: WP4



<sup>&</sup>lt;sup>1</sup> https://www.inf-act.eu/

## II. ECHI background and landscape

#### The origin and importance of the ECHI shortlist Α.

The European Core Health Indicators (ECHI) shortlist provides a 'snapshot' of European public health and health care. It is the result of EU-wide projects starting in 1998, when the European Commission (EC) launched a call to establish an indicator list as the core of the European Union (EU) public health monitoring system. It represents a collective Member States (MS) effort, the result of four consecutive projects running between 1998 and 2012 (see Figure 1). The current ECHI-list contains 88 indicators, a large part of which have been implemented and used across the EU (Verschuuren 2012, Fehr 2018). These indicators are divided in 5 sections: 'demographic and socioeconomic' (n=9), 'health status' (n=31), 'health determinants' (n=14), 'health services' (n=29) and 'health promotion' (n-3).



Fig. 1. History of the ECHI process. In 4 consecutive projects, covering the years 1998-2012, the ECHI shortlist was developed and its implementation was initiated. At the end of this period, the list contained 88 indicators, 67 of which were ready for implementation, 14 were close to ready and 13 were not (at all) ready. ECHI: European Core Health Indicators, know as European Community Health Indicators before 2013; HMP Health Monitoring Programme; ECHIM: European Community Health Indicators Monitoring; JA-ECHIM: Joint Action for ECHIM. Source: Fehr and Tijhuis et al., 2018.

Under the Health Monitoring Program<sup>3</sup>, a relatively large number of **projects** were funded that have developed indicators in multiple health-related areas. Consecutive ECHI-projects have incorporated a selection of these indicators and many of these projects and networks have contributed to shaping the ECHI metadata:

- CHILD EuroCARE
- EHEMU EUROCHIP-III
- EHES

- EUROCISS
- EuroCoDe

• HDP2

- EHLEIS • ENHIS2 Euro-Peristat
- ESAW
- EUBIROD • EUCID
- I2SARE • IDB
- EUHSID/HIS HES Database
- EUMUSC.net
- MINDFUL MONICA
- EUPHID
- PROMeTHEUS

<sup>&</sup>lt;sup>3</sup> In 1997, Decision No 1400/97/EC called for a program of Community action on health monitoring, which aimed for the establishment of a Community health monitoring system



The ECHI process does not have legal status, but MS are obliged to produce at least part of the statistical data that are needed to calculate the indicators. Several European Commission (EC) regulations apply to the ECHI indicators:

- In 2008, Regulation No <u>1338/2008</u> established a framework for Community statistics on public health and health and safety at work, which requires MS to produce statistical "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"
- In 2019, Regulation No <u>2019/1700</u> of the European Parliament and of the Council of 10 October 2019 established a common framework for European statistics relating to persons and households, based on data at individual level collected from samples, amending Regulations (EC) No 808/2004, (EC) No 452/2008 and (EC) No <u>1338/2008</u> of the European Parliament and of the Council, and repealed Regulation (EC) No 1177/2003 of the European Parliament and of the Council and Council Regulation (EC) No 577/98
- The implementation regulations for Community statistics on public health and health and safety at work provide rules and regulations for the data, metadata, reference periods, intervals and time limits for the data to be supplied. The current regulations cover causes of death (328/2011), accidents at work (349/2011), healthcare expenditure and financing (359/2015), and EHIS 2014/2019 (141/2013 and 255/2018). Regulations are pending for health care statistics (other than health expenditure (forthcoming 2021) and morbidity (timetable not decided yet).

Since 2006, the ECHI formed the basis for EU-wide data collections, such as the European Health Interview Survey (EHIS) or the EU Statistics on Income and Living Conditions (EU-SILC). The first European Health Interview Survey (EHIS), based on the ECHI, was launched in 2006 as a voluntary MS exercise. To date, three waves of the EHIS have been conducted, and participation in the EHIS is compulsory for MS.

The Council of the European Union, in 2013, welcomed "further development and consolidation, while avoiding duplication of work, of a health monitoring and information system at EU level based on the European Core Health Indicators (ECHI) and existing health monitoring and reporting systems developed as a result of a cooperation between Member States supported by the Programmes of Community Action in the field of Health". In addition it invited the EC and the MS to "cooperate with a view to establishing a sustainable and integrated EU health information system, built on what has been already achieved through different groups and projects, such as ECHI(M) projects, exploring in particular the potential of a comprehensive European health information research infrastructure consortium as a tool" (Council of the European Union, 2013).

There are no formal updating procedures nor is there a formal and sustainable governance system for the ECHI shortlist, but the EC is still involved in the accessibility and use of the shortlist. DG SANTE (C2 and C4) are currently involved in maintaining the <u>ECHI data tool</u><sup>4</sup>, a tool demonstrating the ECHI and other European health indicators in different formats; and using the ECHI in their <u>State of Health in the EU (SoH)</u><sup>5</sup> (i.e. "country health profiles" and "Health at a Glance: Europe", in collaboration with the OECD). DG ESTAT (F.4 'Income and living conditions; Quality of life' and F.5 'Education, health and social protection') are involved in feeding the ECHI to the ECHI data tool and informing the Working Group on Public Health Statistics (WGPHS) when relevant matters related to the ECHI occur.

<sup>&</sup>lt;sup>5</sup> https://ec.europa.eu/health/state/summary\_en



<sup>&</sup>lt;sup>4</sup> https://ec.europa.eu/health/indicators\_data/indicators\_en

The value of the ECHI shortlist has repeatedly been evaluated and confirmed (e.g., PHEIAC 2013, Economisti Associati 2017, Fehr 2018). The ECHI indicator set supports the development and evaluation of national and international public health policy by providing a solid information base. It provides a valuable point of departure for national public health reporting. For countries in the process of developing their own health indicator sets, ECHI constitutes a valuable example and provides validated indicators that are already in use in many MS. In addition, using the ECHI to internationally compare public health aspects provides an opportunity to reflect on national population health and the health system and thereby adds value to national health information.

The ECHI indicator system adds to the value of other international databases, such as that of the World Health Organisation (WHO) and the Organisation for Economic Cooperation and Development (OECD), see the next section. The ECHI shortlist:

- has the potential to be most relevant for EU Member States in terms of health issues;
- increases efforts to improve comparability of indicators between countries;
- highlights new data collection developments on the basis of policy needs;
- supports the data flow between the European Commission and the Member States;
- profits from the extensive network of national experts and EU-funded projects.

The ECHI system obviously should also look for synergies within and outside the EU. The next section provides some insight in the wider indicator landscape in Europe.

## B. The European health indicator landscape

#### Other EU health indicators and policy frames

The ECHI shortlist is an indicator set developed for the EU. The EU also embeds a system of social indicators, which includes health-oriented indicators. DG EMPL (Employment, Social Affairs & Inclusion) has put forward the European Pillar of Social Rights<sup>6</sup> to serve as a compass leading to reduce inequalities between Member States, regions and socio-economic groups, with three pillars in the field of employment and social policies. The Pillar sets out 20 key principles and rights to support fair and well-functioning labour markets. It was proclaimed by the European Parliament, the Council and the Commission in 2017 and committed to by the EC President. The Pillar is supported by a scoreboard of key indicators to monitor 'societal progress' and it should detect in a timely way the most significant employment and social challenges as well as progress achieved in these domains over time. Eurostat is the provider of the data for most of the indicators of the social scoreboard. These data come from different sources, mainly social statistics such as the EU Labour Force Survey (LFS) or the EU Statistics on Income and Living Conditions (EU-SILC).

The Joint Assessment Framework in the area of Health (JAF Health) indicator list was developed in 2013 with the support of the Commission services (in particular DG Empl and Eurostat, with consultation of DG SANTE and DG ECFIN). The JAF Health indicators have been agreed with MS in the Indicator Subgroup (ISG) of DG EMPL's Social Protection Committee (SPC). The list focuses on the assessment of performance of national healthcare systems within the context of the Open Method of Coordination (OMC). The OMC is used by MS to support the definition, implementation and evaluation of their social policies and to develop their cooperation. It is part of the implementation of the process of coordination of social policies, particularly in the context of the renewed Lisbon Strategy. The JAF Health indicator list is used as a quantitative screening device to detect possible challenges in EU

<sup>&</sup>lt;sup>6</sup> https://ec.europa.eu/eurostat/web/european-pillar-of-social-rights



MS health systems, with a specific focus on issues related to access, quality and equity. Indicators developed within the Joint Assessment Framework aim to enhance the evidence base of EU health policy activities and recommendations to MS. The set of indicators differentiates between EU indicators, national indicators and contextual indicators. Only EU indicators are applicable for comparisons between MS. The JAF Health indicator list is currently under review.

**EU youth health indicators.** Within the EU Youth Strategy, a <u>dashboard of EU Youth</u> <u>indicators</u><sup>7</sup> was developed in order to provide a quick and comprehensive cross-sectoral view of the economic and social situation of young people in the EU. This includes several health and well-being related indicators. The EU-SILC 2017 included a module on <u>children's</u> <u>health</u><sup>8</sup>.

The **Sustainable Development Goals** ( $\underline{SDGs}^9$ ) are an important set of goals and targets that include health as well as other domains relevant for health. The SDGs are being monitored by individual MS, the  $\underline{EC}^{10}$ ,  $\underline{WHO-Euro}^{11}$  and  $\underline{OECD}^{12}$ , each with their own specific indicators.

It seems important to evaluate EU-wide public health indicator governance, to see if harmonisation should take place and to create a sustainable format for EU public health indicators. As part of this report, current commonalities and differences between **ECHI** and **JAF health indicators** have been analysed in this light (Annex Background 1).

#### Other European Region indicators and policy frames

The ECHI set has a preference for Eurostat data (or data from EU-based projects that could sustainably turn into data routinely published by Eurostat). Yet, the experts that developed the ECHI set have always realized that it was part of a bigger European health information picture, where WHO-Europe and OECD also play an important role (see Figure 2). Hence, if more suitable data is available from WHO or OECD, then these are the preferred sources.

**WHO-Europe** indicator frameworks and data sources are the <u>Health for all (HFA)-database</u><sup>13</sup>; Joint Monitoring Framework (JMF) with Health 2020, WHO Non-Communicable Diseases (NCDs) 2025 targets and UN 2030 Agenda on SDGs; the new Measurement framework of the European Programme of Work (EPW).

**OECD** data and indicators sources are the <u>Health Statistics database</u> and the Health Care Quality Outcomes indicators  $(HCQO)^{14}$ .

<sup>&</sup>lt;sup>14</sup> https://www.oecd.org/els/health-systems/health-statistics.htm



<sup>&</sup>lt;sup>7</sup> https://ec.europa.eu/eurostat/web/youth/data/eu-dashboard

<sup>&</sup>lt;sup>8</sup> https://ec.europa.eu/eurostat/data/database?node\_code=ilc\_hch

<sup>9</sup> https://unstats.un.org/sdgs/

<sup>&</sup>lt;sup>10</sup> https://ec.europa.eu/eurostat/web/sdi/good-health-and-well-being

<sup>&</sup>lt;sup>11</sup> https://www.euro.who.int/en/health-topics/health-policy/sustainable-development-goals

<sup>&</sup>lt;sup>12</sup> http://www.oecd.org/dac/sustainable-development-goals.htm

<sup>&</sup>lt;sup>13</sup> https://gateway.euro.who.int/en/datasets/european-health-for-all-database/



Fig. 2: Overview of the European health information landscape, depicting several of its players, expert groups, projects, data- and indicator sets (not all abreviations clarified).



## III. Towards sustainable governance and operating procedures for ECHI

Chapter III in short

What we did:

Draft update procedures and develop ideas for governance of the ECHI shortlist.

What we did not do:

Establish ECHI governance and upkeep mechanism (as we have no mandate for this).

Next steps:

Under sustainable governance: promote discussion between EC and MS and possibly DIPoH to formalize the ECHI update procedures and governance.

## A. Introduction to the chapter

The ECHI indicators were developed to be a consistent and balanced set, covering all relevant health areas and allowing for international comparisons and benchmarking. Considerable effort has been put into this. However, it also needs maintenance. For this, it is not enough to prepare ECHI updates as part of broader health information projects (see Figure 3). This is not only because there is no guaranteed regularity to this, but also because such projects have no official mandate. Hence, the effort and with it the ECHI shortlist currently is not sustainable. A formal governance structure is needed for the ECHI-list to put the list to its best use and ensure the highest value for public health in the European Union.



Fig. 3: Project-based initiatives are good for setting-up, but not for sustaining the ECHI shortlist

## B. Approach

We considered updating procedures that are run at regular intervals with sustainable governance and sufficient capacity, considering previous recommendations by the Joint Action on ECHIM and by Commission funded external evaluations (Kramer 2011, Verschuuren 2012, PHEIAC 2013, Tijhuis 2018).

## Rationale

The sustainable infrastructure for ECHI needs a clear mandate from the European Commission (EC) and the Member States (MS), a recognized form of governance, recognized operating procedures and criteria for decision-making and options to publish the updated indicator data and metadata at regular time intervals. Expert support for content-related work and decisions is essential. Regular evaluation of its functioning is required.



For the ECHI to be at the core of a European public health monitoring system, as was envisioned, it needs to be

- embedded in a sustainable infrastructure
- under sustainable governance and procedures
- regularly updated
- robust, stable and visible, and yet
- flexible to current developments

Below, we describe a set of procedures to fulfil these needs. These procedures have been drafted by taking into account the recommendations from all past projects that have contributed to development or improvement of the ECHI.

## C. Procedures needed for a sustainable ECHI

We drafted three procedures, covering governance and upkeep of the ECHI shortlist. These are summarized in Box 1 and further described below.

#### Box 1: overview of procedures

**Procedure 1: ECHI governance** Main questions: Who is responsible for what and when? Priority: sustainability, infrastructure

**Procedure 2: ECHI content evaluation and update** Main question: Does the ECHI shortlist (still) cover MS/EC needs? Periodicity: every 3 years

Proposal: change the ECHI format into 2 separate parts and review separately
2a) A stable overview of European Public Health (n=~70 indicators)
2b) A flexible, actionable subset addressing urgent information needs (n=~10 indicators),

with periodicity as is required.

**Procedure 3: ECHI metadata maintenance and update** Main question: Is the metadata still up-to-date? Periodicity: every 3 years

#### Procedure 1: ECHI governance

For maintaining and improving its policy relevance and usefulness as a benchmark instrument for Member States and Regions of the EU, the ECHI list will benefit greatly from agreed procedures under a sustainable form of governance. Procedure 1 focuses on overall governance of the ECHI list; structural and systematic update procedures for the relevance of its content and the quality of the metadata are proposed under Procedure 2 and 3.

Sustainable governance requires 'adoption' by the process of evaluation, updating and maintenance of ECHI by the EC (DG SANTE, ESTAT and possibly DG EMPL) and by the MS (possibly at expert level). Regular publication of the most recent data and trends will be needed and possibly a regular reporting exercise for each indicator to interpret the trends over a certain period. The evaluation of policy relevance, adaptation to new policy needs and possibly proposals for new EU-wide data collections should be part of the process and governance that is needed for ECHI to support EU and MS health policies. It would logically



involve coordination and collaboration with EU institutes (ECDC, EMCDDA, JRC) and international organizations (WHO, OECD). Part of the underlying work could be presented to national health information experts that have an integral view on their national health information and reporting efforts and by the Working Group on Public Health Statistics (WGPHS) where detailed technical knowledge and expertise is present. Obviously, there is more than one option to organize a sustainable governance structure and it should be feasible and accepted by all stakeholders.

In short, we see a role for MS experts on both data and information. We see the European Commission (DG SANTE and DG ESTAT in particular) as important partners of MS, with a role in contributing policy relevance, technical commitment, financial sustainability and possibly legal status for the ECHI. In addition, it remains important to strive for synergy and alignment with OECD and WHO. It would also be beneficial to allow for more interaction with the health information community in the update procedure. A supporting platform could be the Distributed Infrastructure on Population Health (DIPOH<sup>15</sup>).



## Brainstorm: proposed ECHI governance structure

## Fig. 4: ideas on ECHI governance

Possible elements of ECHI governance are visualized in Figure 4 and are presented below.

#### **Elements and Expertise**

It is essential to have a concise core team in place at the agency/institution/structure guiding the process, with the participation of excellent professionals in public health, health services, epidemiology, health statistics, data handling and IT. Various roles and tasks need to be fulfilled. We identified possible groups that may play a role in the governance and require specific mandates, expertise or representativeness.

• ECHI unit (n~10):

• Representatives of

- DG SANTE (*initiator*, *enabler*, *financer*, *legislator*): coordinator, IT expert, health information expert
- DG ESTAT (enabler): coordinator, IT expert, statistician

<sup>&</sup>lt;sup>15</sup> https://www.inf-act.eu/sites/inf-act.eu/files/2020-01/Booklet.pdf



- Health Information Experts from HI infrastructure: n=4 public health professionals the 'secretariat'
- $\circ~$  Main task: carry out the ECHI tasks (see below)
- $\circ~$  In informal contact as much as necessary

#### • Strategic Advisory group (n~8)

- National Health Information Experts and representatives from OECD, WHO, others.
- $\circ~$  Main task: advice, function as steering group
- $\circ\;$  Meeting: twice a year, regular contact where necessary

#### National Nodes on Health Information

- $\circ~$  One primary and one secondary contact person for each MS
- Main task: coordination and alignment on data and information situation within countries, i.e. with national ministries and all relevant actors in the countries' data and information landscape (knowledge brokering by health information experts)
- $\circ~$  Meeting: once a year

#### • National Implementation Teams (NITs)

o Deliver the necessary national knowledge on implementation

#### • Working Group on Public Health Statistics (WGPHS)

• Deliver statistical approval ('ECHI stamp')

• Take up in regular meeting: once a year

#### National Statistical Offices

- $_{\odot}~$  Via WGPHS and National Nodes on Health Information
- $\circ\;$  Deliver the necessary national statistical and health information knowledge
- Coordinate and improve data exchange procedures and mechanisms

#### • Ministries of Health and Ministries of Research

- $\circ~$  Enablers, (in-kind) financers of the infrastructure
- $\circ~$  Validate (no veto) changes to the ECHI-list
- Right to amend reports based on ECHI
- Public Health Monitoring and Reporting (PHMR) Committee (SGPP? DIPoH SC?)
  - Representatives of all MS
  - $\circ~$  Main task: general issues and progress on ECHI and health monitoring
  - Meeting: twice every 3 years?

The groups, tasks and roles should be clarified in a business plan. Currently, a viable option for hosting the ECHI core team seems to be DIPoH. The ECHI core team may be developed further as part of the DIPoH services.

#### Highlight: ECHI unit tasks

- Carry out procedure 2 and 3. It may be considered to have countries adopt specific indicators to divide the work
- Maintaining the ECHI indicator shortlist documentation
- Improving the ECHI indicator shortlist using existing comparable indicators, knowledge of MS needs and input from OECD, WHO and EU institutions
- Maintaining the data presentation tool (ECHI tool)
- Promoting the use of ECHI; supporting the MS in the implementation



- Increasing collaboration with international organizations and across EC, aligning with international frameworks
- Carrying out regular evaluations of user needs and meeting them

#### Mode of operation

- The Strategic Advisory Group members are requested to make suggestions for updating the ECHI shortlist applying the predefined criteria. The ECHI unit may put forward suggestions based on scientific and political developments for the consideration of the advisory group.
- Changes to the shortlist can also be suggested by different routes: WGPHS, National Nodes on Health Information, Individual professionals (via the Health Information Portal).
- The ECHI unit checks whether the criteria as defined for the previous updating round are still adequate given the current situation and adapts (only if necessary and only slightly) in consultation with Strategic Advisory Group.
- The ECHI unit develops a substantiated proposal for the new version of the ECHI shortlist led by the MS representatives (functioning as a 'secretariat') through collecting, summarizing and reflecting on the input of the Strategic Advisory Group.
- The elaborated proposal, together with the underlying reflections, is to be discussed during a Strategic Advisory Group meeting.
- The 'secretariat' integrates the outcomes of the discussions during the Strategic Advisory Group meeting with the earlier summary of comments and suggestions. Based on this summary, a final proposal for the new version of the ECHI shortlist is drafted.
- This final proposal for the new version of the ECHI shortlist is to be approved by the Strategic Advisory Group (via meeting or e-mail) and PHMR Committee.
- After approval, it is recommended that the new version of the ECHI shortlist is sent for information to: 1) Head of Unit DG SANTE C2; 2) Head of Eurostat Unit F5; 3) SGPP; 4) Head of Health Information WHO regional office for Europe 5) OECD contact person for health information.
- For the main body of the ECHI shortlist, this procedure shall be conducted every 3 years to ensure both stability and topicality of the list.

#### For emerging health risks, the procedure will be slightly adapted:

In case of emerging risks to public health (procedure 2b), a signal to start collecting an indicator in a certain domain will reach the Strategic Advisory Group and the procedure is run at necessary speed, in collaboration with stakeholders already collecting data in the specific domain (e.g., ECDC in case of COVID-19 related indicators).

#### Finances

The ECHIM Core Group recommended that DG SANTE (then SANCO) provides the means for carrying out the procedure according to basic principles described in the final JA ECHIM report part II at regular intervals; they suggested that once every three years would be a reasonable frequency (Verschuuren 2012).

PHEIAC (2013) concluded that the combination of financial constraints and poor visibility/recognition in the formal policymaking process does not help in building a case for ECHI and that the ECHI would benefit from a clearer legal status. It advised to address financing issues, both for individual indicators as for having the ECHI system in place.

The European Commission cannot finance permanent or frequently recurring costs for the same activity. This has long been known to hamper sustainability. It is recommended that the Commission considers a direct agreement or service contract with an EU-structure (such as DIPoH) and supports its legal status for a longer time period (e.g., a minimum of 10 years) and give it a clear mission and governance structure.



Member States provide indirect financial support, for instance by contributions of their experts in kind, through their National Nodes on Health Information and (ultimately) their DIPoH membership.

Ultimately, the continued availability of good data that are comparable over time and between countries is of interest both for the EU and the individual Member States, in support of improved evidence-based health policies

Box 2 presents an overview of aims and goals of the ECHI support process.

#### Box 2: Aims and goals of the ECHI support process

- Redefine the ECHI indicator set with the aim to monitor and assess the trends in population health and wellbeing and health system performance in the EU and its MS.
- Work as much as possible with existing and highly comparable health data and indicators as already present and developed by WHO, OECD and Eurostat.
- Work in line with "FAIR" data principles to optimize finding, accessing and using the data and metadata of the indicators.
- Adapt and revise the existing ECHI indicator set and its definitions and operationalisations regularly, if needed and appropriate.
- Include indicators for existing and new EU health policy priorities by a process in which the EC and MS experts and policymakers participate. Certify input from OECD, WHO and European health-related institutions (ECDC, EMCDDA, EMA, JRC).
- Remain, where possible, in line with international agreements and indicator frameworks, such as developed for the UN Sustainable Development Goals and by international frameworks such as developed by WHO.
- Depart from a conceptual model on population health and health systems and use welldefined criteria for the inclusion of health-related subjects into the ECHI-indicator set in a transparent and scientifically sound way.
- Recommend new ECHI-indicators and possible new EU-wide data collections for agreement by the MS, using agreed prioritisation methodologies.
- Focus future ECHI-indicator development on policy and user needs and not solely on data availability at national and European statistical offices. Data from European Research Infrastructure Consortia (ERIC's) and similar European institutions that are not yet included in statistical data collections may be or become high policy relevant.
- Evaluate the relevance, quality and usefulness of the indicators at regularly defined time intervals as redundancies or lack of added value may occur.
- Closely interact with either Eurostat or DG SANTE as the optional data and metadata repository for the ECHI indicators. Support the possibility of easy downloading the full dataset.
- Regularly discuss the progress of and priorities for ECHI-indicator development with both political as well as expert representatives from the MS. Participating policy makers should have a broad focus on health, its determinants, healthcare and prevention strategies. Participating experts should preferably be public health generalists (know a little bit about a lot), with access to national specialists (detailed expertise), part of the NIT and able to communicate the views of other members of the NIT.
- Regularly collect input from European stakeholders to evaluate and possibly adapt the ECHI-indicator set.
- Regular inventory of problems met by the MS in collecting the necessary data.



#### Procedure 2: ECHI content

The ECHI content may need to change over time as the characteristics of population health and forthcoming policy needs will change over time. Given the basic aims and goals of ECHI, i.e. a policy relevant, comprehensive set of indicators covering population health, its determinants and including prevention and healthcare, a regular evaluation and adaptation of the list, using proper prioritisation approaches, will be necessary. Being included in the ECHI short list functions as a proof of validation for an indicator, and this gatekeeping function should remain intact. Procedure 2a can support this. We suggest the procedure is carried out every 3 years.

#### Procedure 2a: A stable overview of European Public Health

The procedure, possibly using a Delphi approach (see chapter VI), could start from a review of the criteria for adding and deleting indicators. Summing up, the steps could be:

- 1. reviewing the criteria for additions and deletions
- 2. collecting suggestions
- 3. applying the criteria to new indicators
- 4. prioritising
- 5. analysing whether the currently implemented set still represents a balanced set
- 6. in case of new indicators: discuss uptake into the EU statistical system<sup>16</sup>

The below boxes show the original *selection* criteria (that apply to the totality of the list, see Box 3) and the criteria for *additions* and *deletions* (to be applied to the individual indicators, see Box 4). They were originally developed in the ECHI projects (see Verschuuren 2012). Blue colored additions are from the BRIDGE Health and InfAct. Crossed text means the original formulation was deleted.

Box 3: Criteria for the selection of ECHI shortlist indicators (stable set)

- i. The list should cover the entire public health field, including health system performance, following the commonly applied structure of the well-known Lalonde model: health status, determinants of health, health interventions/health services, and socio-economic and demographic factors.
- ii. The indicators should serve the user's needs, meaning that they should support potential policy action, both at the EU and Member State level.
- **iii.** Criteria shall be applied to identify and prioritize needed policy action (e.g. large public health problems, including health inequalities) and best possibilities for effective policy action.
- iv. Existing indicator systems, such as the indicators used in the WHO Health for All database and OECD Health Data, should be used as much as possible, but there is room for innovation.
- **v.** Use the viewpoint of the general public health official ('cockpit') as frame of reference.

vi. Focus on the best possibilities for effective policy action.

<sup>&</sup>lt;sup>16</sup> InfAct D9.5 (Haneef et al, 2021) discusses opportunities and obstacles for the uptake of health indicators into the regular EU data collection system.



#### Box 4: Criteria for additions and deletions (stable set)

Criteria for additions:

- i. The indicator should have clear policy relevance. This implies that it should be related to a major public health issues in Europe, and the importance of the issue should be reflected by its appearance in leading policy documents or scientific journal. A major public health issue is a policy relevant issue when it is linked to a high burden of disease, clear possibilities or needs for prevention, and/or clear possibilities for reducing health inequalities (is actionable). The importance of the issue shall be determined by adequate prioritization and evidence-based public health methods, involving stakeholder expertise.
- ii. The indicator should not disturb the balance of the ECHI shortlist, i.e. there should not be too many (overlapping) indicators for similar topics, and not too many indicators for 'minor' or contextual topics in the shortlist.
- iii. The shortlist should provide a 'snapshot' of public health from the point of view of the public health generalist.
- iv. The indicators in the shortlist should be suitable for providing a benchmark for reflecting time trends
- v. The indicators in the shortlist should be suitable for providing a benchmark for international (EU) comparisons, i.e. should be accessible and comparable across countries.
- vi. The indicator is expected to be relevant for a longer period of time.
- vii.Disaggregations should be available for the indicator (age, sex, geography)

#### **Criteria for deletions**

- i. "The indicator is related to a topic that is no longer policy relevant".
- ii. "A new and better indicator has been identified for the same concept".
- iii. "There is lack of between-country differences".

Sometimes temporary adaptations may be needed if a sudden and temporary change in health or health risks appears. Procedure 2b is meant to put a process in place that enables the addition and/or deletion of indicators to or from the shortlist to support emerging challenges or health trends with priority policy relevance (see Box 5).

Procedure 2b: A flexible and actionable subset addressing urgent information needs

Box 5: Criteria for addition and deletion to a flexible and actionable subset

#### Criteria for addition

- i. "The indicator is relevant for an emerging problem in public health"
- ii. "The indicator is suitable for providing a benchmark for international (EU) comparisons"

#### Criteria for deletion

- i. "The indicator is no longer comparable, used or considered sufficiently relevant by experts"
- ii. "The indicator requires transfer to the stable part/procedures 2a"

This sub-procedure is supported by insights provided by health information experts during the BRIDGE Health project. The sub-procedure addresses urgent information needs and could be a framework for collecting urgently needed comparable data. Data on (possibly temporarily) emerging issues require timely data collection. Getting comparable highquality data is a challenge but can be done with the right procedure and support. Also, FAIR and rapid federated data flows are expected to make progress over the next years.



#### Procedure 3: ECHI metadata

It has become clear over the lifetime of the ECHI-indicator set that a procedure is needed to review and update the validity of the metadata of the set. As definitions, sources or ways of collection and presentation change, new metadata are needed. We suggest the procedure is carried out every 3 years. Updates could follow EHIS and other (more frequent) EU surveys.

The individual indicators and totality of the list shall be checked for technical updates of the metadata, comparability sheets and operational indicator sheets. A structured checklist of metadata components to check regularly should guide the update.

Reviewing the metadata is a very time-consuming process which requires adequate and competent human resources and efficient organization. One option that could support this is to make metadata available in a web-friendly manner and allow suggestions from the health information community. This could be integrated in the HIP. A contact form with predefined fields that need to be filled out could help to avoid spam compared to providing an e-mail address for suggestions. These suggestions can then be screened, validated and collated by a scientific staff member who will, at defined time intervals, coordinate expert deliberations about incoming suggestions with the aim of achieving consensus about their adoption.

Not all indicators have the same readiness level. Three sections are distinguished:

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

See Box 6 for a description of the eligibility criteria, which can also be used to guide the transfer between sections in case of changes in the situation of the indicator.

#### Box 6: Eligibility criteria for the three sections of the ECHI shortlist

Eligibility criteria for the implementation section:

There is consensus on the indicator definition and calculation, and data are adequately available in international databases (a cut-off point shall be added).

 $\rightarrow$  the indicator can be used to support policy making, it is ready for implementation at (inter)national level.

#### Eligibility criteria for the work-in-progress section:

There is consensus on the indicator definition and calculation, or considerable developmental work has already been carried out (i.e. consensus can be reached within a limited amount of time), but the indicator is not yet incorporated in regular international data collections.

There is an overview of national data availability and data are available in a reasonable number of countries. (a cut-off point shall be added)

 $\rightarrow$  Technically, the indicator is (nearly) ready for incorporation in regular international data collections, but there may not yet be concrete plans for this.

#### Eligibility for the development section:

This section contains those indicator topics that are not ready yet for incorporation in international regular data collections (and thus for implementation) due to considerable methodological and/or data availability problems.



## IV. <u>Reflections on modernising ECHI content and format</u>

#### Chapter IV in short

What we did:

- Collect suggestions about new indicator topics;
- Review potential improvements in content in light of the criteria for additions and deletions (balance and policy relevance);
- Review the format of the set

What we did not do:

- Develop a new policy section for the documentation sheets;
- Deliver a final and systematic revision of the ECHI shortlist content.

Next steps:

Under sustainable governance: Discuss any changes to the list

## A. Introduction to the chapter

The world is subject to change and so are public health and our health systems. Consequently, the health information landscape and monitoring tools (needs to) move and develop with it. The ECHI list was designed to be a stable anchor for European public health monitoring, but not meant to be completely static. In the ECHI projects, criteria were developed for adding and deleting indicators. In this chapter, we return to these criteria and look into the content of the ECHI list. In addition, we explore possibilities for a different structure of the list to better accommodate user needs.

## B. Approach

We collected suggestions for new and outdated topics from the public health monitoring community from MS and EC health information experts. This has so far been a non-systematic process, however. When evaluating the suggestions, the criteria for addition and deletion need to used and also the original set of selection criteria need to be kept in mind (<u>see chapter III, procedure 2a, Box 3 and 4</u>). In this, it is also necessary to take account of the landscape

- both within EU: we analyse commonalities and differences with the JAF health indicators set that is maintained by DG EMPL (see Annex Intro 1).
- and outside EU: alignment with OECD and WHO has always been important for ECHI development work.

Mapping to other indicator sets is a very useful exercise to find potential inconsistencies.

A stable ECHI list cannot accommodate emerging information needs. Under InfAct's predecessor BRIDGE Health experts were asked about the structure of the ECHI list and by far most thought it could be beneficial separate a stable part and a flexible subset directed specifically at emerging issues (Tijhuis, 2017). This would then require separate criteria (see chapter III, procedure 2b, Box 5).



## C. Recommendations

#### 1. Content suggestions for the stable core set

Similarly as for the technical update (see Chapter V), it would benefit the ECHI if its content would be reviewed regularly, in a structured procedure<sup>17</sup>, as part of the tasks delegated to a formal governance structure (see also chapter II). A Delphi procedure, including experts and stakeholders, could be envisaged as a feasible method for a regular review (Freitas, 2018; Fehr, 2021). Within a European permanent governance structure, such exercise could be based on a core panel of public health experts, to be complemented by topic-specific expertise for review of specific indicators. A major advantage of the ECHI shortlist as compared to other initiatives developing indicators sets, is that the major players in the field of health information (i.e. EC DG Sante/ESTAT, WHO/Euro, OECD, MS via their health information experts) were (already) involved in its development. This is a good basis to set up an active and engaging Delphi process.

Table 1 presents suggestions for additions to the ECHI shortlist that have been collected over the course of this project and that may be highlighted in a new structured process. In short, InfAct recommends considering in this process indicators on children's health, congenital anomalies, long-term healthcare expenditure, avoidable mortality, patient reported experience measures (PREMS), environmental health (PFAS) and health literacy. Additional suggestions can be found in Annex Content 1. For PFAS and health Literacy, metadata are shown in Content 2 and 3, respectively.

Some considerations can be made regarding the required sources for children's health. The <u>dashboard of EU Youth indicators</u><sup>18</sup> contains a number of indicators potentially relevant for the ECHI shortlist: daily smokers, obesity, psychological distress and injuries following road accidents (Eurostat, EHIS), crude death rate by suicide (Eurostat, Causes of death), at risk-of-poverty or exclusion rate, self-reported unmet needs for medical care (Eurostat SILC). For younger ages, however, the European School Survey Project on Alcohol and Other Drugs (<u>ESPAD</u><sup>19</sup>), Health Behaviour in School-aged Children (<u>HBSC</u><sup>20</sup>) study, and the WHO European Childhood Obesity Surveillance Initiative (<u>COSI</u><sup>21</sup>) will need to be considered as sources.

Policy areas that have been suggested before to require more attention (Tijhuis, 2018) are: 'mental health', 'healthy ageing', 'burden of disease', 'healthy lifestyles' (notably food and nutrition') and 'health inequalities' (for the latter, see Annex Content 4).

#### 2. Content suggestions for a flexible subset

As regard adding a flexible and actional subset addressing urgent information needs, e.g. COVID-19 related indicators, migration related indictors and/or climate change related indicators could be considered.

<sup>&</sup>lt;sup>21</sup>https://www.euro.who.int/en/health-topics/disease-prevention/nutrition/activities/whoeuropean-childhood-obesity-surveillance-initiative-cosi



<sup>&</sup>lt;sup>17</sup> This is supported by the BRIDGE Health project, where out of a group of n=20 experts, n=11 agreed and n=8 strongly agreed with the statement that 'a structured procedure is needed to identify new areas of policy information needs in the central indicator set' (n=1 had 'no opinion'; Tijhuis, 2018). In a Policy Delphi survey conducted for InfAct task 5.3 on health information prioritization, 15 of 26 participants confirmed that in their countries structured processes are applied to prioritize health information for national health reporting (Fehr, 2021).

<sup>&</sup>lt;sup>18</sup> https://ec.europa.eu/eurostat/web/youth/data/eu-dashboard

<sup>&</sup>lt;sup>19</sup> http://www.espad.org/

<sup>&</sup>lt;sup>20</sup><u>https://www.euro.who.int/en/health-topics/Life-stages/child-and-adolescent-health/health-behaviour-in-school-aged-children-hbsc</u>

Table 1	1:	Suggested	additions	to	the	ECHI	shortlist
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Indicator	Comment			
Demographic and socio-economic				
Health status				
Discuss ADDITION: Children's health; EU-SILC (see Annex Technical 3)	As operationalization of 'parent indicator', mark which indicators have a "children's version".			
Discuss ADDITION: Causes of death for children;	Add to/Replace 11. Infant Mortality			
Discuss ADDITION: Congenital anomalies; EUROCAT database, via JRC				
Health determinants				
Discuss ADDITION: Children's health determinants • Smoking; • alcohol consumption; • use of illicit drugs; • obesity • other	As operationalization of 'parent indicator' (ECHI 42, 44, 46/47, 48) or stand-alone Discuss HBSC (11-13-15 yrs), COSI (6-9 yrs), ESPAD (16 yrs), EHIS (15-19 yrs)			
Discuss ADDITION: PFAS (perfluorinated alkylated substances - PFOA and PFOS); HBM4EU	Consider proposal (Annex Content 2): % of general population exceeding an HBM-I for one PFAS level in blood plasma for either PFOA > ug/l or PFOS > 5 um/l			
Health interventions: health services				
Discuss ADDITION: avoidable mortality; Eurostat				
Discuss ADDITION: long-term healthcare expenditure; DG ECFIN	Check Joint Report on Health Care and Long-Term Care Systems & Fiscal Sustainability			
Discuss ADDITION: patient reported experience measure; OECD	Discuss which is most relevant and available			
Health interventions: health promotion				
Discuss ADDITION: Health Literacy; European health literacy survey (HLS-EU) Discuss: Digital Health literacy and collaboration with M-POHL <sup>22</sup> network	Consider proposal (Annex Content 3): Proportion of people with limited levels of health literacy based on the HLS-EU-19. Number of people with 1) insufficient or 2) problematic levels of health literacy should be added and divided by the total number of people who were interviewed.			
Discuss ADDITION: Flexible and actionable subset	addressing urgent information needs, n~10?			
COVID-19 related?				
Migration related?				
Climate change related?				

<sup>&</sup>lt;sup>22</sup> Action Network on Measuring Population and Organizational Health Literacy of EHII - WHO-Europe; https://m-pohl.net/



## V. Proposed technical update of existing ECHI indicators

#### Chapter V in short

What we did:

- Update the metadata sheets for each individual indicator (documentation sheet, list of operational indicators and comparability sheet) insofar possible within this project;
- Prepare overarching recommendations for the future sustainable ECHI process;
- Prepare a list with indicator-specific recommendations for the future sustainable ECHI process.

What we did not do:

- Update the rationales in the documentations sheets;
- Deliver finalized metadata revisions;
- Implement new ways of organizing the metadata.

Next steps:

Under sustainable governance: start official procedure to review and formalize the updated sheets based on InfAct's input and finalize them.

#### A. Introduction to the chapter

An important backbone in the ECHI work is the **ECHI metadata**. This currently consists of a documentation sheet, a list of operational indicators and a comparability sheet, for each indicator (see Figure 5). **Documentation sheets** contain, for each indicator, all the technical information needed for computing the indicator as well as some basic contextual information needed for interpreting the indicator (in a structured format, see Annex Technical 1). In a nutshell, the ECHI documentation sheets provide sound recommendations by health indicators experts on:

- reasons for choosing an indicator (rationale),
- best data source to cover the indicator,
- definition and calculation of the indicator,
- relevant policy areas by indicator.

For the European Commission (EC), the ECHI documentation sheets provide reliable background information when discussing at Commission level for new data sets or when advising other Directorates to use health indicators for Health In All Policies (HIAP) purpose. For the Member States (MS) and associated countries (AC), the documentation sheets can guide the calculation of high quality internationally comparable indicators.

In addition, a list of **operational indicators** reflects the precise definitions of the breakdowns required for the indicators according to sex, age, socio-economic status, and other possible dimensions. It thus provides a quick summary per indicator of the definitions and breakdowns.

Finally, contextual information is necessary to provide a solid evidence base for practical use. To provide support to policy makers and other target audiences making use of ECHI indicator data presentations, structured and tailored information about the (in)comparability of the data underlying the ECHI indicators is compiled in the ECHI **comparability sheet**. The remarks are not meant to give complete background information about the indicator, but rather to provide a quick overview of the main comparability or



quality issues. Users who want to know more details are referred to additional information. Meta-information about the comparability of the data underlying the ECHI indicators generally is available in the original sources of the data (databases such as Eurostat and WHO-HFA).

<ul> <li>b) CCHI Meta-data</li> <li>b) CCHI Meta-data</li> <li>c) Documentation sheets</li> <li>c) List of operational indicators</li> <li>c) Comparability sheets</li> </ul>			ECHIM Indicator name	A) Shortlist section
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List of operational indicators     Comparability sheets <i>Our addition of the indicators Comparability sheets Comparability sheets</i>	<ul> <li>Documentation sheets</li> </ul>		Rationale	the technical information needed for
Comparability sheets     Comparability sh	<ul> <li>List of operational indicate</li> </ul>		Remarks	computing the indicator, as well as some basic
Comparability sheets     the indicators (in a structured format)     Bifmen     Comparability sheets     bifmen     Comparability sheets     bifmen     Comparability sheets     bifmen     Comparability sheets     bifmen     Comparability     comparability     bifmen     comparability     comparabi	<ul> <li>List of operational indicato</li> </ul>	15		contextual information needed for interpreting
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- Health Indicators in the European Regions (ISARE) project <u>Impl@eexilaat.org</u> Wiref or do           Table 3: European of the second information for one of the EURIE double for second information for one of the EURIE double information (IL Self second) health			References	Only add references that are directly related to topics mentioned in the text of the sections, do not provide general background information. Try to add a link to the data at the moot detailed level possible (e.g. in case of Euroset at each add is lark to the concerned data set in the Eurosett addatase).
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Table 3 Founds of the securitized informe for uses of the 1718 should be 100			Work to do	
and the second se	Table 2: Example of the operational indicators for one of the ECHI shortlist indicators	13.546 previoud builds		

ID	Sub- division	Indicator name	Data source	Operational indicator(s)
22401	Health status	33. Self- perceived health	Eurostat (EU-SILC)	Proportion of persons who assess their health to be very good or good
22402				Proportion of men who assess their health to be very good or good
22403				Proportion of women who assess their health to be very good or good
22404				Proportion of persons aged 15-64 who assess their health to be good or very good
22405				Proportion of persons aged 65+ who assess their health to be good or very good
22406				Proportion of people whose highest completed level of education is ISCED class 0 or 1, who assess their health to be good or very good
22407				Proportion of people whose highest completed level of education is ISCED class 2, who assess their health to be good or very good
22408				Proportion of people whose highest completed level of education is ISCED class 3 or 4, who assess their health to be good or very good
22409				Proportion of people whose highest completed level of education is ISCED class 5 or 6, who zons their health to be good or very good

indicator of the definitions/breakdowns





Fig. 5: the ECHI metadata

In the past, a plan existed to make broader contextual information regarding the ECHI indicators available; EUPHIX, the European Union Public Health Information and Knowledge System, was developed as a prototype of a web-based, comprehensive European public health reporting system. For various reasons the European Commission decided not to develop the prototype into a fully functioning system. Instead, the Commission created HEIDI (Health in Europe: Information and Data Interface); a comprehensive wiki on public health topics; currently, this is the <u>'ECHI data tool'</u>.



The technical updates to the ECHI documentation sheets aim to maintain the currency and consistency of the information provided. In this section, no suggestions are made about the relevance of an indicator content-wise (which is subject of Chapter IV).

### B. Approach

A team from the National Public Health Institutes in Germany (RKI), Lithuania (HI) and Czech Republic (UZIS) in collaboration with that of the Netherlands (RIVM) reviewed the ECHI metadata sheets (published in 2012 by the Joint Action on ECHIM, see Fig 5).

The technical update was organised as a double review process. Researchers from the different institutes (RKI, UZIS, HI) conducted a peer-review of the existing documentation sheets and each other's work. The process was organized by distinguishing two sets of indicators (see below).

Set 1: "Regular" ECHI indicators

Demography Indicators: 1-9; Health Status Indicators: 10-20, 21b, 22, 23b, 24, 25, 26b, 27b, 28, 29b, 30b, 31-35, 37-41; Determinants of Health Indicators: 45-46, 48, 51, 53, 55; Health Interventions Indicators: 56, 61-70, 73, 75-88

Set 2: The indicators where EHIS was mentioned as preferred source in Verschuuren 2012 Health Status Indicators: 21a, 23a, 26a, 27a, 29a, 30a, 36; Determinants of Health Indicators: 42-44, 47, 49, 50, 52, 54; Health Intervention Indicators: 57-60, 71-72, 74

#### 1. Peer-Review Pilot

To pilot the review process, three indicators were selected, separately for the two sets (6 in total). After preparing the process with RIVM, RKI started the review and partners from HI (focusing on set 1) and UZIS (focusing on set 2) subsequently added comments. Results were discussed, both with respect to technical content and procedure.

#### 2. Peer-review

Following this pilot review, each of the three institutes reviewed the documentation sheets independently. Revision to the documentation sheets were tracked using the track changes function in Word and comments were added. Subsequently, they compared results and compiled them into a final peer-review draft. Disagreements were resolved through discussion.

The peer-review teams reviewed existing metadata documentation in relevant databases (mostly data linkages with Eurostat), relevant EHIS questions in Round 3 (implementation 2018-2019) and references and links in the current metadata sheets. They focused on updating and streamlining the metadata where possible and aligning the documentation with metadata documentation from the relevant sources.

Comments were also added to separate tables: one for general remarks and one for indicator-specific recommendations. The review was sent to EC (DG SANTE and Eurostat) health information experts, who sent back their comments.



In summary, in their review of the metadata sheets, the teams:

- revised outdated database links and references
- slightly adapted the organization of the documentation sheet (Annex Technical 1)
- checked consistency in wording, for example in breakdowns (male/female)
- updated sections to match EHIS wave 3 (where this formerly was wave 1, for an example see Annex Technical 2); In some cases there was a change of wording in the EHIS questions without change in concept (e.g. indicators: 47, 59, 60), in other cases alignment with wave 3 required adaptation of the indicator definition (e.g., indicators 30a, 60, 72).
- cross-referenced information from the online EC-hosted ECHI tool for accuracy within the tool

The final versions of the revised metadata are clean (no track changes or comments). They can be accessed via Annex Technical 2.

The general and indicator specific comments and major changes are available in Annex Technical 5 and Technical 6.

## C. Recommendations

The teams have prepared recommendations to 'the ECHI community', meaning the European Commission and MS who will participate in updating the metadata formally. The recommendations do not have a formal status. A formal technical review needs to be done on a regular basis and under an agreed governance structure (see Chapter III).

#### 1. Overview of implemented recommendations and changes

Annex Technical 5 displays a list of general recommendations and Annex Technical 6 shows recommendations per indicator.

#### 2. Specific recommendations: EHIS

The indicators where EHIS was previously mentioned as preferred source are: Health Status Indicators: 21a, 23a, 26a, 27a, 29a, 30a, 36; Determinants of Health Indicators: 42-44, 47, 49, 50, 52, 54; Health Intervention Indicators: 57-60, 71-72, 74

In this age of increasing needs of timely information, EHIS periodicity is a problem. With a large part of indicators relying on an instrument that measures only once every six years, it is recommended that EC and MS discuss the role of EHIS. This may focus on:

- Complementary sources
- Alternative sources
- Increased EHIS frequency of data collection

In the future it may be possible to complement with data from the EU-SILC module on health providing data with 3-years periodicity. This needs to be confirmed with proper analysis of the results of the 2022 round (see Annex 'Technical 4' for a list of variables) and assessment of comparability of both data sources (EHIS and EU-SILC). EU-SILC can be considered as a complementing data source for indicators on BMI (42), fruit and vegetable consumption (49, 50), tobacco use (44), alcohol consumption (46) and physical and sensory limitations (36). Administrative data can be considered for vaccination and cancer (breast, cervical) preventive checks, resulting in adding a b) version of indicators (57b, 58b, 59b).



#### 3. Specific recommendations: ECHI tool

It is recommended that the ECHI tool and ECHI documentation sheets are fully aligned. This means the ECHI tool should also be reviewed. Annex Technical 6 also contains recommendation for the ECHI tool (in purple).

So far, findings of the InfAct reviewers are as follows:

- Linkage is to available data in collection, which may differ from the data elements requested by the documentation sheet.
- It is difficult to see whether an indicator has the implementation/work-inprogress/development status.
- Several of the links (to source data tables) are out of date or linking to the wrong indicator in the source data set.
- There are no notes in the metadata.

It is recommended that after revision and alignment, more attention is given to visibility of the ECHI tool (see also Chapter VI).

#### 4. Recommendations for facilitating the handling of the metadata

It is recommended to revise and modernise the template for the ECHI metadata, both in terms of the information that is collected and in terms of the method of dissemination, checking also sources such as the <u>SDGeHandbook</u><sup>23</sup>. The current method of working with static WORD-files or PDF-files does not seem very efficient, not are these easily accessible.

#### 5. Recommendations for facilitating and improving the use of the ECHI indicators

It is recommended to make the full dataset easily downloadable for use by national professionals.

<sup>&</sup>lt;sup>23</sup> https://unstats.un.org/wiki/display/SDGeHandbook/Home



## VI. Visibility and communication

Chapter VI in short

What we did:

- Prepare an ECHI information repository under the Health Information Portal, complementing what is available on the European Commission portal, as a source of structured ECHI collective memory;
- Collect ideas about effectuating visibility and usability in a communication plan, i.e. doing some 'marketing' and targeting different audiences.

What we did not do:

-

Next steps:

Under sustainable governance: Collaboration between the European Health Information Portal and the European Commission in ECHI communication and visibility.

## A. Introduction to the chapter

In this chapter, we describe our effort to set up an ECHI visibility and communication plan. Better ECHI visibility and communication will help countries and EU get more out of ECHI and stimulate performing international comparisons.

#### B. Approach

We reviewed previous recommendations on the topic, internally from ECHI projects or externally from ECHI evaluations, and added our own experience.

## C. Knowledge repository



Important starting points are information and a location to store the information. We created an ECHI knowledge repository, a single point of access to broad ECHI-related information. We collected ECHI background information and made this temporarily available under ECHI.nl/ECHI.eu<sup>24</sup>, a website maintained by RIVM. This repository has been transferred to the <u>Health Information Portal<sup>25</sup></u>, section 'Health Information in Europe'.

We need to keep in mind here that the information should be low maintenance. An update checklist, with links and information to check regularly, can be beneficial (see Annex Visibility 1). The work needs to proceed in collaboration with DG SANTE/ESTAT, who maintain the ECHI data tool.

<sup>&</sup>lt;sup>25</sup> www.healthinformationportal.eu



<sup>&</sup>lt;sup>24</sup> We expanded the repository from the BRIDGE Health project (<u>https://www.bridge-health.eu/</u>)

## D. Strategy for dissemination and communication

In the dissemination and communication strategy of the ECHI, we see a coordinating role for the European Commission. DIPoH (the distributed infrastructure for population health) and its one-stop shop (the Health Information Portal) may support the European Commission in this.

In order to guarantee, legitimate and improve the ECHI set, its use should be promoted among potential users. It is also important to actively evaluate the use of ECHI, as using the data will teach us valuable lessons. It would be very useful if MS exchange ideas about how ECHI can be used and to make evaluations of use accessible to other Europeans.

In order to maintain and improve the use of ECHI it is considered important to strengthen the links between the ECHI shortlist and policy makers and policy priorities. This could be accomplished by establishing an ECHI indicator platform. On this platform public health experts can exchange their expertise and ideas about capacity building on health indicators and their use in the EU.

The use of ECHI indicators can be further promoted by a better visibility for both policy makers and the public health society. Therefore, the ECHI set and its metadata should be easily understandable, for example by means of an 'ECHI for dummies'. A visualisation tool for the metadata may also help (see Annex Visibility 2).

Regular ECHI-based reports can be published, for different audiences, e.g. policy maker, researcher, society and in different formats. Member States should be supported in implementing national report tools, for example by means of templates. Also attractive ways of indicator calculation and presentation can be developed, for example by moving graphs. Information on comparability difficulties should be easily available together with data presentation. The data presentation tool could mark those years, which are not fully comparable, by some flag and provide easy access to methodological section or explanation; Adding flags to indicate breaks in series; Implementing user friendly tools for analysis (i.eg. over the period change, linear regression, etc.).

A permanent dashboard, with a selection of indicators could be helpful to quickly gain insight into the public health situation.

General communication methods can be put in place to disseminate the existence, relevance and usefulness of ECHI. The following page provides practical suggestions.



1. A clear visualisation of the meaning of ECHI and how it can be used, in a manner comparable to the SDG-visual below.



- 2. Visualise ECHI outcomes by means of infographics.
- 3. Set up a twitter account @ECHIindicators and twitter with #ECHI to point at relevant developments in the field of Public Health in Europe (related to ECHI).
- 4. Build a LinkedIn group for posting relevant news and exchanging ideas on how to make use of ECHI.
- 5. Compose a periodic newsletter where attention is paid to new developments and newly added or updated indicators, possibly linked to the updates that are currently already given in the ECHI data tool.
- 6. Appoint ECHI ambassadors, give them an online platform; interviews with the ambassadors could be distributed.
- 7. Organise symposia to exchange experiences with the use of ECHI.
- 8. Stimulate use of ECHI, e.g. provide MS with a guide to make a scan of their own country. This is further elaborated under Example 1.
- 9. Invite countries to prepare a national health report on the basis of ECHI indicators and offer guidance.
- 10. Implement ECHI indicators into national data presentation tools
- 11. Invite countries to make a national web page dedicated to ECHI indicators (even if it is simple, with possible link to DG SANTE or other tool)
- 12. Involve the national nodes as much as possible
- 13. Stimulate ECHI capacity building, especially for young professionals who were not there to see the ECHI set develop. This is further elaborated under Example 2.



## Example 1: A guide to benchmark national public health using ECHI indicators

## What Member States could do

ECHI indicators form a good instrument to benchmark a country's public health and put it in an international perspective. Member States may use the shortlist to compose an overview of their national public health situation as compared to other countries. Previous efforts, such as the Dutch "Dare to compare"<sup>26</sup> (See Box 7) can serve as an example.

Based on this experience, a format has been developed that can be applied to each indicator in section 1 (implemented: data are readily available and reasonably comparable) and section 2 (work-in-progress: data partly available and/or sizeable comparability problems) of the ECHI shortlist. Also, the eligibility level of the ECHI indicator ("implementation, work-in-progress, development") can be used to categorize the information in the report.

The format consists of:

- The indicator definition and rationale
- A bar graph or (when possible) trend graph showing the position of the country in relation to other EU countries. In bar graphs, one may choose to present the country and show the top and bottom five, sorted on the basis of the values for men and women combined.
- The trend graphs show the country, the EU-average and the range of figures for all EU countries displayed by a grey area.
- A short text on the current situation explaining how the country compares with other EUcountries. Sometimes age, sex or socio-economic differences, or a link with related subjects, are highlighted.
- A text paragraph on time trends.

For each indicator, data sources could be examined for:

- 1. Availability (including timeliness): are data readily available and accessible?
- 2. Comparability: are data comparable taking into account their different types of sources and methods? (I.e. data from national statistical offices, questionnaires, Health Interview Survey (HIS), European Statistics on Income and Living Conditions survey (EU-SILC), European Community Household Panel (ECHP), Health Examination Survey (HES), standardization, age groups, etc.).
- 3. Quality (validity, reliability): this may refer to characteristics of the data source (e.g. representativeness, sample size); possibility to make the required indicator calculation, etc.

This may provide the MS with a good overview of the availability and comparability of national data in the implementation of the ECHI. Of course, duplication with regards to the EU state of health in the EU cycle needs to be avoided.

<sup>&</sup>lt;sup>26</sup> https://www.rivm.nl/bibliotheek/rapporten/270051011.pdf



### Box 7: Dare to Compare! A benchmark using ECHI indicators

In 2008 a benchmark study took place in which the Netherlands was compared with other European countries. The basis for this benchmark was the set of ECHI indicators and it was found to be a rather straightforward way to get a good overall picture of national public health internationally compared.

The choice of the ECHI list as the basis for comparisons served two purposes:

1.to base the comparisons on an EU-wide agreed set of items

2.to evaluate to which extent the availability, comparability and quality of Dutch data would meet the ECHI shortlist requirements, or to which extent, the ECHI shortlist can be implemented for the Netherlands.



The previous led to the following main questions to be answered in the report:

- 1) How does Dutch public health compare to public health in other European countries, in general and with a focus on young people and the elderly? Wherever possible, issues of socio-economic inequalities are addressed.
- 2) To what extent are Dutch data available and suitable to meet the specifications of the ECHI shortlist, and what are the main gaps and bottlenecks when making international comparisons based on the ECHI shortlist?

#### Example 2: ECHI in the European Health Information School

In 2020, the ECHI were part of the 1<sup>st</sup> European Health Information Course.

The learning objectives were set as follows:

- 1. Learn about the major health indicator sets in the European Region (EU, WHO, OECD)
- 2. Learn about the history of the European Core Health Indicators (ECHI)
- 3. Learn about ECHI current developments and future perspectives
- 4. Learn how to practically use the ECHI
- 5. Reflect on the ECHI by identifying gaps

A theoretical part discussed the ECHI landscape, history, current developments and future perspectives.

A practical part gave insight in the use of the ECHI. Students were asked to look up -precourse- the answer to several questions covering different ECHI sections and data sources:

- demographic and socioeconomic indicators

   Which country has the highest percentage of mothers giving birth ≥35 years?
- health determinants:
  - $\circ~$  In which country almost all infants are breastfed at 6 months?
- health status
  - $_{\odot}~$  Which countries have the lowest mortality due to cancer?
  - Which countries made the biggest progress in infant mortality?
  - Which countries have highest health expectancy?
- health services and promotion
  - Which countries have the highest influenza vaccination rate?
  - $\circ$  Which countries spend most on health care (as percentage of GDP)?



Suggestions were provided to use the ECHI data tool, the visualization in ECHI.eu or the source databases (Eurostat, OECD health statistics, WHO Health Information Gateway). During the session, 'mentimeter' was used as a tool to collect the answers and engage the students.

An example is shown here:





### VII. Proposed next steps

InfAct proposes the following next steps:

With priority:

the set-up of ECHI governance is highly recommended, making use of existing expertise, involving both EC and MS.

In addition:

- to make available the ECHI metadata and data available online to the health information community and establish an online system for suggestions on ECHI doc sheets and on ECHI topics to make full use of the health information community.
- to work on the visibility of the ECHI using the Health Information Portal, in collaboration with DG SANTE and DG ESTAT.

#### VIII. Implications and limitations

A formal structure for the ECHI-list is needed to put the list to its best use and ensure the highest value for public health in the European Union. It is not enough to prepare ECHI updates as part of broader health information projects, not only because there is no guaranteed regularity to this but also because such projects have no official mandate.

## IX. Conclusions and recommendations

The ECHI shortlist shows we need to go from project based only to a sustainable procedure in a recognised health information infrastructure. "Adoption" of the ECHI by the European Commission and countries and setting up official governance would benefit EU and country health information systems.

It is important to discuss roles and responsibilities. European Commission (DG SANTE and DG ESTAT in particular) is seen as important partner to MS, with a role in securing policy relevance, technical commitment, financial sustainability and possibly legal status.

The documentation sheets need to be reviewed regularly (e.g. every three years) and disseminated in an easily accessible, web-friendly way.

Content and suitability of the list need to be reviewed regularly (e.g. every three years), using an appropriate prioritisation process.

An ECHI visibility and communication plan will help countries and EU get more out of ECHI and stimulate performing international comparisons. Better use can be made of modern ways of communication.


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The ECHI-related references are accessible from the ECHI information repository on the European Health Information Portal: <a href="http://www.healthinformationportal.eu">www.healthinformationportal.eu</a>.



## <u>Annexes</u>



## Annex Background 1: ECHI indicators in the ECHI tool

The following list<sup>27</sup> displays indicators available in the ECHI tool<sup>28</sup>. Some differences exist between this list and the list provided by the JA ECHIM (Verschuuren 2012)<sup>29</sup>.

#### Demography and socio-economic situation

- 1. Population by sex / age Old-age-dependency ratio (I)
- 2. Birth rate, crude (I)
- 3. Mother's age distribution (I)
- 4. <u>Total fertility rate (I)</u>
- 5. Population projections (I)
- 6. <u>Population by education (I)</u>
- 7. Population by occupation (D)
- 8. Total unemployment (I)
- 9(a). Population below poverty line (I)
- 9(b). Income inequality (I)

#### Health status

- 10. Life expectancy (I)
- Life expectancy by educational attainment (I)
- 11. Infant mortality (I)
- 12. Perinatal mortality (I)
- 13. Disease-specific mortality (I)
- 14. Drug-related deaths (I)
- 15. Smoking-related deaths (D)
- 16. Alcohol-related deaths (D)
- 17. Excess mortality by heat waves (D)
- 18. Selected communicable diseases (I)
- 19. <u>HIV/AIDS (I)</u>
- 20. Cancer incidence (D)
- 21(a). Diabetes: self-reported prevalence (I)
- 21(b). Diabetes: register-based prevalence (D)
- 22. Dementia (D)

European health indicator on dementia

23(a). Depression: self-reported prevalence (I)

- 23(b). Depression: register-based prevalence (D)
- 24. Acute myocardial infarction (AMI) (D)

25. Stroke (D)

26(a). <u>Asthma: self-reported prevalence (I)</u>

- 26(b). Asthma: register-based prevalence (D)
- 27(a). Chronic obstructive pulmonary disease (COPD): self-reported prevalence (I)
- 27(b). Chronic obstructive pulmonary disease (COPD): register-based prevalence (D)
- 28. Low birth weight (I)

<sup>28</sup> https://ec.europa.eu/health/indicators\_data/indicators\_en

<sup>&</sup>lt;sup>29</sup> Some 'European health indicators' have been added; for some indicators an administrative source is added to the survey source; Cancer incidence was in implemented section before



<sup>&</sup>lt;sup>27</sup> <u>https://ec.europa.eu/health/indicators/echi/list\_en</u> (accessed on May 21st 2021)

- 29(a). Injuries: home, leisure, school: self-reported incidence (I)
- 29(b). Injuries: home, leisure, school: register-based incidence (I)
- 30(a). Injuries: road traffic: self-reported incidence (I)
- 30(b). Injuries: road traffic: register-based incidence (D)
- 31. Injuries: workplace (I)
- 32. Suicide attempt (D)
- 33. Self-perceived health (I)
- 34. <u>Self-reported chronic morbidity (I)</u>
- 35. Long-term activity limitations (I)
- 36. Physical and sensory functional limitations (I)
- 37. General musculoskeletal pain (D)
- 38. Psychological distress (D)
- 39. Psychological well-being (D)
- 40(a). Health expectancy: Healthy Life Years (HLY) (I) 2004 onwards
- 40(b). <u>Health expectancy: Healthy Life Years (HLY) (I) before 2004</u>
- 41. <u>Health expectancy, others (I)</u>

#### Determinants of health

- 42. Body mass index (I)
- 43. <u>Blood pressure (I)</u>
- 44. Regular smokers (I)
- 45. Pregnant women smoking (D)
- 46. Total (recorded + unrecorded) alcohol consumption (I)
- Total (recorded) alcohol consumption
- 47. Hazardous alcohol consumption (I)
- 48. Use of illicit drugs (I)
- 49. Consumption of fruit (I)
- 50. Consumption of vegetables (I)
- 51. Breastfeeding (D)
- 52. Physical activity (I)
- 53(a). Work-related health risks (I)
- 53(b). Work-related health risks (I)
- 54. Social support (I)
- 55. PM (particulate matter) exposure (I)

#### Health interventions: health services

- 56. Vaccination coverage in children (I)
- 57(a). Influenza vaccination rate in the elderly (survey data) (I)
- 57(b). Influenza vaccination rate in the elderly (administrative data) (I)
- 58(a). Breast cancer screening (survey data)
- 58(b). Breast cancer screening (administrative data)
- 59(a). Cervical cancer screening (survey data)
- 59(b). Cervical cancer screening (administrative data)
- 60. Colon cancer screening (I)
- 61. Timing of first antenatal visits among pregnant women (D)
- 62. Hospital beds (I)
- 63. Practising physicians (I)
- 64. Practising nurses (I)



European health indicator on other health professionals

- 65. Mobility of professionals (D)
- 66. Medical technologies: MRI units and CT scanners (I)
- 67. Hospital in-patient discharges, limited diagnosis (I)
- 68. Hospital day cases, limited diagnoses (I)

69. <u>Hospital day-cases as percentage of total patient population (in-patients & day-cases)</u>, <u>selected diagnoses (I)</u>

70. Average length of stay (ALOS), limited diagnoses (I)

- 71. General practitioner (GP) utilisation (D)
- 72. Selected outpatient visits (D)

European health indicator on self-reported visits to a dentist or orthodontist

- 73. Selected surgeries (I)
- 74. Medicine use (I)
- 75. Patient mobility (I)
- 76. Insurance coverage (I)
- 77(a). Expenditures on health care as percentage of GDP (I)

77(b). Expenditures on health care in millions of Purchasing Power Standard (PPS) (I)

- 78. <u>Survival rates cancer (I)</u>
- 79. 30-day in-hospital case-fatality of acute myocardial infarction (AMI) and ischemic stroke (I)
- 80. Equity of access to health care services (I)
- European health indicator on equity of access to dental care services
- 81. Waiting times for elective surgeries (I)
- 82. Surgical wound infections (D)
- 83. Cancer treatment quality (D)
- 84. Diabetes control (D)

#### Health interventions: health promotion

- 85. Policies on environmental tobacco smoke (ETS) exposure (D)
- 86. Policies on healthy nutrition (D)
- 87. Policies and practices on healthy lifestyles (D)
- 88. Integrated programmes in setting, including workplace, schools, hospital (D)



# Annex Background 2: Commonalities and differences between ECHI and JAF Health

#### JAF Health: aim, landscape and developments

The Joint Assessment Framework in the Area of Health (JAF Health) is a quantitative screening device used to detect possible challenges in EU Member States' (MS) health systems, with a specific focus on issues related to access, quality and equity. It is based on a list of indicators agreed with MS and divided into six dimensions: 1) Outcome; 2) Access; 3) Quality; 4) Non-healthcare determinants; 5) Resources; 6) Socio-economic situation. For each indicator, the country's distance to the EU average is used as a flag to signal a potential area where the system differs from that of other countries.

#### Aim of comparing the JAF Health and ECHI lists

This comparison identifies overlap and differences between ECHI and JAF Health indicators. Its main aim is to support the revision process of both indicator sets to more aligned changes: streamlining the two data sets and their maintenance, learning from each other, cooperation, sharing of knowledge and experience, and harmonizing the metadata and the presentation of indicators/indicator topics which are common to both datasets. Also, it will make clearer why there need to be two sets, what the added value of both lists is, and help each expand its own added value.

For the purpose of the current mapping exercise, we have used the List of JAF health indicators as agreed by ISG in June 2017 (the most recent JAF health indicator list) and the 2012 ECHI documentation sheets (the latter being also the starting point for this report).

The comparison targets the following areas:

- 1) Definition of the indicator
- 2) Relevant methodology of computation
- 3) Disaggregation, relevant breakdowns
- 4) Source of data
- 5) Purpose of the indicator
- 6) Policy relevance linkage to specific targets

The comparison is presented in the embedded excel file and can also be accessed <u>here</u>. We gratefully acknowledge Flavia Carle, Rosaria Gesuita and Andrea Faragalli (Italian Polytechnic University of Marche) and Federico Rea (University of Milan 'Bicocca') for preparing these tables.



An accompanying reflection is in development.

DIPoH would be an excellent place to work on harmonisation in the EU landscape, as it connects a large research community with policy-makers.



Table: Overview of common topics in both data sets
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ECHI Indicator	JAF Health Indicator(s)
	88. Old age dependency ratio
01. Population by sex/age	90. Share of population 65+
	91. Share of population 80+
06. Population by education	92. Share of population 25-64 with low educational attainment
09. Population below poverty line and income inequality	89. At risk of poverty or social exclusion rate
10. Life expectancy	01-06 Life expectancy at birth, at 65, by sex
11. Infant mortality	13. Infant mortality rate
	18. Amenable mortality
13. Disease-specific mortality; Eurostat, 86	19. Preventable mortality
causes	20. External causes (excl. transport accidents)
	23. Number of deaths due to self harm / suicide
23. (A) Depression, self-reported prevalence	24. Self- reported 12-month depression symptoms
	11. Self perceived general health (good, very good)
33 Self-perceived health	12. Gap in self perceived general health (good, very good) Q1-Q5
55. Self-perceived health	21. Self perceived general health (bad, very bad)
	22. Gap in self perceived general health (bad, very bad) Q1-Q5
40. Health expectancy: Healthy Life Years (HLY)	07-10 Healthy life years at birth, at 65, by sex
41. Health expectancy, others	15-17 PYL indicator by sex
42. Body mass index	51-55 Obesity
44. Regular smokers	46-50 Regular daily smoking
47. Hazardous alcohol consumption	56-60 Risky single occasion drinking
49. Consumption of fruit	61-63 Fruit consumption
50. Consumption of vegetables	64-66 Vegetable consumption
52. Physical activity	67-71 Physical activity
56. Vaccination coverage in children	40-41 Vaccination coverage - children
57. Influenza vaccination rate in elderly	42-43 Influenza vaccination
58. Breast cancer screening	35 Breast cancer screening
59. Cervical cancer screening	36 Cervical cancer screening
60. Colon cancer screening	37-39 Colorectal cancer screening
63. Practising physicians	80 Physicians per 100 000
64. Practising nurses	81 Nurses and midwives per 100 000
71. General practitioner (GP) utilisation	31 Number of doctors consultations per year per inhabitant
72. Selected outpatient visits	31 Number of doctors consultations per year per inhabitant
76. Insurance coverage	30 Health insurance coverage
77. Expenditures on health	72-79 Expenditures on health



78. Survival rates cancer	32-34 cancer survival rates
79. 30-day in-hospital case-fatality AMI and	44. In hospital mortality following AMI
stroke	45. In hospital mortality following stroke
80. Equity of access to health care services	25-29 Unmet needs

## Table: List of JAF Health indicators as agreed by ISG (2017)

JAF	Health Dimension	JAF Health Indicator
1	OUTCOME	01.Life expectancy at birth (T)
1	OUTCOME	02.Life expectancy at birth (M)
1	OUTCOME	03.Life expectancy at birth (W)
1	OUTCOME	04.Life expectancy at 65 (T)
1	OUTCOME	05.Life expectancy at 65 (M)
1	OUTCOME	06.Life expectancy at 65 (W)
1	OUTCOME	07.Healthy life years at birth (M)
1	OUTCOME	08.Healthy life years at birth (W)
1	OUTCOME	09.Healthy life years at 65 (M)
1	OUTCOME	10.Healthy life years at 65 (W)
1	OUTCOME	11.Self-perceived general health (good + very good)
1	OUTCOME	12.Gap in self-perceived general health (very good and good) Q1-Q5
1	OUTCOME	13.Infant mortality rate
1	OUTCOME	14.Child mortality, 1-14
1	OUTCOME	15.Potential years life lost (T)
1	OUTCOME	16.Potential years life lost (M)
1	OUTCOME	17.Potential vears life lost (W)
1	OUTCOME	18.Amenable mortality
1	OUTCOME	19.Preventable mortality
1	OUTCOME	20.External causes of death, excl. transport accidents (T)
1	OUTCOME	21.Self-perceived general health (bad + v. bad)
1	OUTCOME	22.Gap in self-perceived general health (very bad and bad) Q1-Q5
1	OUTCOME	23.Number of deaths due to self-harm / suicide
1	OUTCOME	24.Self-reported 12-month depression symptoms
2	ACCESS	25.Unmet need medical care - total
2	ACCESS	26.Unmet need medical care - cost
2	ACCESS	27.Unmet need medical care - waiting
2	ACCESS	28.Unmet need medical care - distance
2	ACCESS	29.Gap unmet need medical care Q1-Q5
2	ACCESS	30.Health insurance coverage
2	ACCESS	31.Number of doctor's consultations per year per inhabitant (generalist
		and specialist in private practice or as outpatient)
3	QUALITY	32.Colorectal cancer survival rates (T)
3	QUALITY	33.Breast cancer survival rates (T)
3	QUALITY	34.Cervical cancer survival rates (T=W)
3	QUALITY	35.Breast cancer screening (W,50-69)
3	QUALITY	36.Cervical cancer screening (W)
3	QUALITY	37.Colorectal cancer screening (T)
3	QUALITY	38.Colorectal cancer screening (M)
3	QUALITY	39.Colorectal cancer screening (W)
3	QUALITY	40.Vaccination coverage children - diphteria, tetanus, pertussis (1st
		dose)
3	QUALITY	41. Vaccination coverage children - measles (3rd dose)
3	QUALITY	42.Influenza vaccination 65+
3	QUALITY	43.Gap influenza vaccination 65+ by education level ISCED 0-2 and
		ISCED 5-6



3	OUALITY	44. In-hospital mortality following AMI
3	QUALITY	45. In-hospital mortality following stroke
4	NON HEALTH-CARE	46. Regular daily smoking (T)
4	NON HEALTH-CARE	47. Regular daily smoking 15-24 (T)
4	NON HEALTH-CARE	48. Regular daily smoking (M)
4	NON HEALTH-CARE	49. Regular daily smoking (W)
4	NON HEALTH-CARE	50.Gap in regular daily smoking 01-05
4	NON HEALTH-CARE	51.Obesity (T)
4	NON HEALTH-CARE	52. Obesity 18-24 (T)
4	NON HEALTH-CARE	53. Obesity (M)
4	NON HEALTH-CARE	54 Obesity (W)
4	NON HEALTH-CARE	55 Gap in obesity 01-05
4	NON HEALTH-CARE	56. Risky single occasion drinking (15+)
4	NON HEALTH-CARE	57. Risky single occasion drinking (15-74)
4	NON HEALTH-CARE	58. Risky single occasion drinking (M)
4	NON HEALTH-CARE	59. Risky single occasion drinking (W)
4	NON HEALTH-CARE	60. Gap in risky single occasion drinking by education level ISCED 0-2
		and ISCED 5-6
4	NON HEALTH-CARE	61.Fruit consumption (T 15+)
4	NON HEALTH-CARE	62.Fruit consumption (15-24)
4	NON HEALTH-CARE	63.Gap in fruit consumption by education level ISCED 0-2 and ISCED 5-6
4	NON HEALTH-CARE	64. Vegetable consumption (T 15+)
4	NON HEALTH-CARE	65. Vegetable consumption (15-24)
4	NON HEALTH-CARE	66.Gap in veg consumption by education level ISCED0-2 and ISCED 5-6
4	NON HEALTH-CARE	67.Physical activity (T 15+)
4	NON HEALTH-CARE	68.Physical activity (15-24)
4	NON HEALTH-CARE	69.Physical activity (M)
4	NON HEALTH-CARE	70.Physical activity (W)
4	NON HEALTH-CARE	71.Gap in physical activity by education level ISCED 0-2 and ISCED 5-6
5	RESOURCES	72.Current expenditure on health care per capita (in pps)
5	RESOURCES	73.Current health expenditure as % GDP
5	RESOURCES	74.LTC expenditure as % GDP
5	RESOURCES	75.Curative care expenditure as % CHE
5	RESOURCES	76.Rehabilitative care expenditure as % CHE
5	RESOURCES	77.LT nursing care expenditure as % CHE
5	RESOURCES	78.Prevention and public health services as % CHE
5	RESOURCES	79.Administrative expenditure as % CHE
5	RESOURCES	80.Physicians per 100 000
5	RESOURCES	81.Nurses & midwives per 100 000
5	RESOURCES	82.Health personnel in hospital, FTE per 100 000
5	RESOURCES	83.Government expenditure as % CHE
5	RESOURCES	84.Compulsory insurance expenditure as % CHE
5	RESOURCES	85.Voluntary schemes expenditure as % CHE
5	RESOURCES	86.Household out-of-pocket expenditure as % CHE
5	RESOURCES	87.Rest of the world expenditure as % CHE
6	SOCIO-ECONOMIC	88.Old-age dependency ratio
6	SOCIO-ECONOMIC	89.At risk of poverty or social exclusion rate
6	SOCIO-ECONOMIC	90.Share of population 65+
6	SOCIO-ECONOMIC	91.Share of population 80+
6	SOCIO-ECONOMIC	92. Share of population 25-64 with low educational attainment
6	SOCIO-ECONOMIC	93.GDP per capita (pps)



## Annex Background 3: Overview of recommendations to ECHI

We collected recommendations for improvement of the ECHI process from previous ECHI projects and external ECHI reviews, made over the past years (2011-2018).

They are presented in the embedded excel file and can also be accessed <u>here</u>.





Annex Content 1: Suggestions for addition, deletion or replacement	nt
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Indicator <sup>30</sup>	Comment	
Demographic and socio-economic -> change na	me?	
03. Mother's age distribution	Discuss overlap with #4 for policymaking	
04. Total fertility rate	Discuss overlap with #2 for policymaking	
06. Population by education	Discuss REPLACEMENT	
07. Population by occupation	Discuss DELETION	
08. Total unemployment	Discuss REPLACEMENT by long-term unemployment only	
09. Population below poverty line and income inequality	Discuss splitting into 2 different indicators	
Health status		
12. Perinatal mortality	Discuss splitting into foetal and neonatal mortality	
13. Disease-specific mortality; Eurostat, 86 causes	Discuss REDUCTION into major categories only (and point to Eurostat for detailed list)	
14. Drug-related deaths	Discuss REPLACEMENT, to select EMCDDA core indicator(s)	
17. Excess mortality by extreme temperatures (formerly 'by heat waves')	Discuss REPLACEMENT, to include broader implications of climate change	
18. Selected communicable diseases	Discuss REPLACEMENT, to include AMR and/or food safety DALY's	
39. Psychological well-being	Discuss REPLACEMENT with general well-being (life satisfaction)	
41. Health expectancy, others	Discuss MERGE with 40 Health expectancy: Healthy Life Years (HLY)	
Health determinants	-	
42. Body mass index	Discuss ADDITION: overweight. Discuss ADDITION: children.	
44. Regular smokers	Discuss ADDITION: children.	
46. Total alcohol consumption	Discuss ADDITION: children.	
48. Use of illicit drugs	Discuss ADDITION: children.	
61. Timing of first antenatal visits among pregnant women	Discuss DELETION Data not collected on international level.	
62. Hospital beds	Discuss REPLACEMENT No clear interpretation, limited comparability.	
63. Practising physicians	Discuss REPLACEMENT(see 62)	
64. Practising nurses	Discuss REPLACEMENT (see 62)	
65. Mobility of professionals	Discuss DELETION	
Health interventions: health promotion		
86. Policies on healthy nutrition	Discuss REPLACEMENT with better measurable, more specific indicator	
87. Policies and practices on healthy lifestyles	Discuss REPLACEMENT with better measurable, more specific indicator	
88. Integrated programmes in settings, including workplace, schools, hospital	Discuss REPLACEMENT with better measurable, more specific indicator	

<sup>&</sup>lt;sup>30</sup>Colours represent current availability status: white: implementation section, light grey: work in progress section, dark grey: development section



## Annex Content 2: PFAS as a potential new ECHI-indicator

The below documentation sheet was provided to the InfAct project by the HBM4EU project (contact: Madlen David, madlen.david@uba.de).

HBM4EU concludes that perfluorinated alkylated substances (PFAS) fulfill the ECHI criteria.

The indicator

-has clear policy relevance.

-will not disturb the balance of the ECHI shortlist

-contributes to providing a snapshot of EU public health

-is suitable for reflecting time trends, and providing a benchmark for international (EU) comparisons.

ECHI criteria	Perfluorinated alkylated substances (PFAS): PFOA and PFOS
Data availability	Europe: 26 participating countries (HBM4EU 2017-2021), Germany
Overview of national data	(GerES, ESB), Spain (BIOAMBIENT.ES), Austria (Um-MuKi), Finland
In a reasonable number	planned, Ukraine planned
of countries	Other non-European countries for comparisons: USA (NHANES), Canada
	(CHMS)
Policy relevance	Health effects for PFOA and PFOS:
<ul> <li>High burden of disease</li> </ul>	-Disturbance of fertility and pregnancy
	<ul> <li>waiting period for pregnancies &gt; 1 year</li> </ul>
	<ul> <li>pregnancy gestosis and -diabetes</li> </ul>
	-Decreased birth weights of newborns (mainly male)
	-Disturbance of lipid metabolism (increase of cholesterol
	concentration)
	-Reduced immunity after vaccination, immunological development
	-Reduced fertility/hormonal development, age shifting at starting
	puberty/menarche
	- I hyroid hormonal imbalance
	-Precocious menopause
ECHI	Blood plasma levels of PFAS (PFOA or PFOS)
Indicator name	
Definition	Percentage of the general population exceeding an HBM-I for one PFAS
	level in blood plasma for either PFOA > 2 $\mu$ g/l or PFOS > 5 $\mu$ g/l.
Calculation	The indicator can be computed as:
	100* (N <sub>exceeder</sub> /N <sub>total</sub> )
	Where N <sub>exceeder</sub> is the <i>number of people exceeding HBM-I</i> for either
	PFOA or PFOS in blood plasma. If people exceed HBM-values for PFOA
	as well as for PFOS they are still counted as only one exceeder. $N_{\text{total}}$ is
	the total number of the participating people in the survey.

In the course of HBM4EU the concept of HBM-based indicators has been further developed and can be transferred to any chemical internal exposure associated with relevant health risks and availability of health-based guidance values (HBM-GV):

1.Buekers J, David M, Koppen G et al. (2018) Development of Policy Relevant Human Biomonitoring Indicators for Chemical Exposure in the European Population. International Journal of Environmental Research and Public Health 15:2085.

2.Apel P, Rousselle C, Lange R, Sissoko F, Kolossa-Gehring M, Ougier E (2020) Human biomonitoring initiative (HBM4EU) - Strategy to derive human biomonitoring guidance values (HBM-GVs) for health risk assessment. Int J Hyg Environ Health 230:113622.



## Annex Content 3: Health literacy as a potential new ECHI-indicator

The below documentation sheet was provided to the InfAct project by the European Health Parliament Committee for Health Literacy & Self-Care, to be considered for uptake in the ECHI shortlist (contact: Eline Lubbes, <u>eline.lubbes@gmail.com</u>).

ECHI Indicator	E) Health interventions: health promotion
Name	N. Proportion of low Health Literacy in the population
Relevant policy areas	<ul> <li>Health inequalities (including accessibility of care)</li> <li>Health in All Policies (HiAP)</li> <li>Health system performance, quality of care, efficiency of care, patient safety</li> </ul>
Definition	Health literacy is linked to literacy and entails people's knowledge, motivation and competences to access, understand, appraise and apply health information in order to make judgements and take decisions in everyday life concerning health care, disease prevention and health promotion to maintain or improve quality of life during the life course.
Calculation	Proportion of people with limited levels of health literacy based on the HLS-EU-19, which contains four levels of health literacy; 1) insufficient, 2) problematic, 3) sufficient, 4) excellent. Number of people with insufficient or problematic levels of health literacy should be added and divided by the total number of people who were interviewed.
Relevant dimensions and subgroups	- Calendar year - Country
Preferred data type and data source	Preferred data type: Personal interviews (PAPI or CAPI), telephone interviews (CATI) or internet based data collection. Preferred source: European health literacy survey (HLS-EU-19)
Data availability	<ul> <li>For 2011, data are available from HLS-EU-Q47 for eight of the EU Member States (Austria, Bulgaria, Germany, Greece, Ireland, the Netherlands, Poland and Spain). Results are available by country and vulnerable groups.</li> <li>Between 2011 and 2019, several European countries have used the HLS- EU-16 to generate country specific data (e.g. the Netherlands).</li> <li>In 2020, the HLS-EU-19 was be used to gather data among more than 20</li> </ul>
	European countries.
Data periodicity	See work to-do section.
Rationale	Health literacy is a key determinant of health, and plays an important role in improving health equity. Health literacy also lays the foundation

Date last modification documentation sheet: 17-12-2019



	for patient-centricity by enabling patients to play an active role in their own health.
Remarks	<ul> <li>With the HLS-EU-Q47, differences between geographical representations within countries (Germany and Greece) and differences related to the data collection methodology and response rates by country, partly limit strict comparability between countries.</li> <li>HLS-EU-Q47) is a subjective measurement and as such it does not include any objective items to measure health literacy.</li> <li>HLS-EU-16 and HLS-EU-19 are shorter versions of the HLS-EU-47</li> </ul>
References	<ul> <li>Kickbusch I., Pelikan J.M., Apfel F., Tsouros A.D (2013). Health literacy. The solid facts.</li> <li><u>http://www.euro.who.int/en/publications/abstracts/health-literacythe-solid-facts</u></li> <li>Sørensen, K., Pelikan, J. M., Röthlin, F., Ganahl, K., Slonska, Z., Doyle, G., HLS-EU Consortium (2015). Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU). European journal of public health, 25(6), 1053-1058. doi:10.1093/eurpub/ckv043</li> </ul>
Work to do	<ul> <li>Conduct the HLS-EU-19 every five years, starting in 2020.</li> <li>Conduct the HLS-EU-19 in all EU Member States.</li> </ul>



## Annex Content 4: Contribution by JAHEE

#### Background

In Europe, current efforts to monitor health inequalities are usually focused on comparing national averages or proportions of an outcome across nations or other geographical entities. Although averages also provide relevant information, it is not sufficient to inform health equity directed policies. In order to provide policy relevant information efforts aimed at monitoring health inequalities have to look beyond national averages and explore health and preconditions for health in subgroups of the population.

The Joint Action Health Equity Europe (JAHEE, 2018-2021) is a Joint Action financed by the Third Health Programme 2014-2020 of the European Union. One of the aims with JAHEE and the specific focus of work package five (WP5) is to attract attention to and improve countries' capacity to monitor health inequalities. Indicators measuring the extent of health inequalities is a significant theme in this WP where experts from 12 member states review which data and what measures will best reflect health inequalities in most contexts. The aim is to provide a list of *core health inequality indicators* as one of the deliveries from JAHEE.



JAHEE WP5 considers some issues related to its work conducted relevant to address in future ECHI processes. To strengthen the focus and the visibility of the health inequality perspective in the ECHI, JAHEE WP5 suggests that below topics are considered further in future ECHI developmental work. For more details on the topics raised the WP5 final report will be available at the JAHEE website https://jahee.iss.it/ in the beginning of 2022.

#### Considerations for future discussions

JAHEE WP5 aims to develop (by considering for instance new measures) and highlight some already existing ECHI indicators as indicators particularly relevant for health inequalities. JAHEE WP5 suggests that the list of core health indicators that will be presented in its final report, most of them already ECHI indicators, will be considered in this context. These indicators have been acknowledged as particularly relevant by JAHEE WP5 partners.

JAHEE WP5 suggest that the use of more sophisticated measures (such as the concentration curve, the slope index of inequality) is discussed in relation to the indicators that make up the base for the suggested increased attention for health inequality. It is a complex issue, but would enable a more nuanced monitoring of how health inequalities develop.

JAHEE WP5 considers education as the main stratifier, but suggests that also other dimensions of inequality, such as income, socioeconomic position and migration status, are further discussed and emphasised in relation to all (relevant) ECHI indicators.

JAHEE WP5 suggests that future discussions on ECHI consider how health inequalities could be visualised in dash boards, guides or other tools developed for the use of Member states.



## **Annex Technical 1: Documentation sheet**

The below table shows the set-up of an ECHI documentation sheet and the minor changes the InfAct project implemented in the technical recommendations for the ECHI metadata.

ECHI Indicator name	Thematic Indicator Section/Chapter
	Indicator Title
Relevant policy areas (to make the ECHI shortlist more user friendly DG Sante has merged theses 17 policy areas into 12 <sup>31</sup> . The main aim of the lists is to support policy makers in their choice of indicators for measuring and/or setting of policy)	<ul> <li>Select the relevant application areas from this list:</li> <li>Sustainable health care systems</li> <li>Healthy ageing, ageing population</li> <li>Health inequalities (including accessibility of care)</li> <li>Health system performance, quality of care, efficiency of care, patient safety</li> <li>Maternal and perinatal health</li> <li>Non-communicable diseases (NCD), chronic diseases</li> <li>Health threats, communicable diseases</li> <li>(Preventable) Burden of Disease (BoD)</li> <li>Preventable health risks</li> <li>Life style, health behaviour</li> <li>Environmental health</li> <li>Mental health</li> <li>Child health (including young adults)</li> <li>Occupational health</li> <li>(Planning of) health care resources</li> <li>Health care costs &amp; utilisation</li> <li>Health in All Policies (HiAP)</li> </ul>
Definition	
Calculation	
Relevant dimensions & sub-groups	If relevant, describe operationalization of dimensions/subgroups. If the region is a required dimension, use the following operationalization: according to ISARE recommendations and add reference to www.isare.org in the References section. Use the order and format below (only list the relevant items): - Calendar year - Country - Region (according to ISARE recommendationsNUTS classification <sup>32</sup> ) - Sex - Age group () - Socio-economic status ()
Preferred data type and data source	Preferred data type: Preferred source:
Data availability	Describe briefly the availability of the various dimensions. In general, focus on unavailability to prevent the text from becoming too long.
Data periodicity	

<sup>&</sup>lt;sup>31</sup> https://ec.europa.eu/health/indicators/docs/poster\_echi\_a0\_2oct\_white.pdf<sup>32</sup> https://ec.europa.eu/eurostat/web/nuts/history



Rationale	
<del>Remarks</del> Notes	Describe here issues directly relevant for the indicator that do not fit within one of the other sections.
Linkage to previous EU Projects and Concepts	Describe here projects that were relevant for developing the indicator
References	Only add references that are directly related to topics mentioned in the text of the sections, do not provide general background information.
Work to do	



## Annex Technical 2: Revised ECHI metadata sheets

The revised metadata can be accessed here.



## Annex Technical 3: Example of EHIS change

Indicator 30a: Injuries: road, traffic, self-reported incidence:

- Questions HS.7&8 (EHIS wave 1) were re-numbered AC.1&2 (EHIS wave 2/3).
- Question AC.1 no longer specified that identified injuries resulting from accident should be external or internal, as was the case in Question HS.7.
- Question AC.2 also introduced the possibility for more than one accident with the addition of "these accidents" to the formulation of the question posed by the former HS.8 "this accident".
- Question AC.2 from wave 3 has a different formulation from wave 1's HS.8:

HS.8 (wave 1)	AC.2 (wave 3)
"visit a doctor, a nurse or an emergency	"needed medical care as a result of this
department of a hospital as a result of	(these) accident(s)?"
this accident?"	
<ul> <li>"1.yes, I visited a doctor or nurse"</li> </ul>	$\circ$ "1. Yes, I was ADMITTED to a hospital
$\circ$ "2.Yes, I went to an emergency	or any other health facility and stayed
department"	overnight"
• "3. No consultation or intervention was	$\circ$ "2. Yes, I was ADMITTED to a hospital
necessary"	or any other health facility but didn't
	stay overnight"
	$\circ$ "3. Yes, from a doctor or nurse"
	• "4. No, no intervention was needed".

 AC.2 asks for treatment received for the most serious accident during the last 12 months. This prevents visibility into treatment for road, traffic-specific injuries, when one has had more than one accident, previously available from the EHIS wave 1 questionnaire and required for the calculation of Indicator 30a (definition 2).



## Annex Technical 4: EU-SILC variables

The following tables show the EU-SILC topics, to be explored for use to complement EHIS.

#### EU-SILC 2021:

RCH010	General health (child)
RCH020	Limitation in activities because of health problems (child)
HCH010	Unmet need for medical examination or treatment (children)
HCH020	Main reason for unmet need for medical examination or treatment (children)
HCH030	Unmet need for dental examination or treatment (children)
HCH040	Main reason for unmet need for dental examination or treatment (children)

#### EU-SILC 2022 Module on Health:

HS200	Financial burden of medical care
HS210	Financial burden of dental care
HS220	Financial burden of medicines
PH080	Number of visits to a dentist or orthodontist in the past 12 months
PH090	Number of consultations of a general practitioner or family doctor in the past 12 months
PH100	Number of consultations of a medical or surgical specialist in the past 12 months
PH110A	BMI 1 Weight
PH110B	BMI 2 Height
PH120	Type of physical activity when working
PH132	Frequency of physical activities (excluding working)
PH142	Frequency of eating fruit (excluding any juice)
PH152	Frequency of eating vegetables or salad (excluding any juice)
PH171	Tobacco use (including electronic cigarettes or similar electronic devices)
PH180	Frequency of consumption of an alcoholic drink of any kind
PH101	Difficulty in seeing, even when wearing glasses or contact lenses
PH111	Difficulty in hearing, even when using a hearing aid
PH121	Difficulty in walking or climbing steps
PH131	Difficulty in remembering or concentrating
PH141	Difficulty (with self-care such as) washing all over or dressing
PH151	Difficulty in communicating (using your usual language, for example understanding or being understood by others)
PW241	Feeling left out
PW030	Satisfaction with financial situation
PW160	Satisfaction with personal relationships
PW120	Satisfaction with time use (amount of leisure time)
PW130	Feeling lonely
PW090	Being happy
PW180	Help from others



## Annex Technical 5: General recommendations

#### Table: General recommendations

	Recommendations by project and external expert reviewers and some context by both	Origin	InfAct recommendation/action
1	<ul> <li>Adapt the documentation sheet row headings</li> <li>Change heading 'remarks' to 'notes'</li> <li>Insert row with heading 'Linkage to previous EU Projects and Concepts'</li> </ul>	• InfAct	• Done, see Annex 'Technical 1'
2	<ul> <li>Adapt the policy areas in the documentation sheets</li> <li>Policy areas should include the European Green Deal, the European Way of Life, SDGs, health inequalities to be more aligned with EU policies.</li> <li>There were some proposals to rename some policy areas: Preventable health risks, lowering risk of developing non-communicable diseases, Environmental health determinants</li> </ul>	• EC	• Address in new, sustainable, ECHI process
3	<ul> <li>Breakdowns to show inequalities:</li> <li>Discuss education level (which ECHI usually recommends) vs income</li> <li>Discuss education level age range (15+ or e.g. 25+)</li> <li>Discuss 4 SES-class stratification</li> <li>DG SANTE usually sticks to educational level to show health inequalities. However, income level can complement the information on health inequalities in particular when money is an issue for example on dental care. Degree of urbanization will become more important in EU policies. Migration-related variables could also be of interest.</li> </ul>	• EC	• Address in new, sustainable, ECHI process
4	<ul> <li>Revise the participating countries due to Brexit</li> <li>Avoid confusion with EU27/EU28 in texts, put EU only; Keep meaning EU28 for statistics before 2020 and EU27 from 2020 onwards</li> <li>The implementation of the indicators in the ECHI Data Tool requires to put both aggregates.</li> </ul>	• InfAct	• All sheets need to be checked
5	Revise ID numbers for operational indicators: it is not clear what they correspond to	• InfAct	<ul> <li>Address in new, sustainable, ECHI process</li> </ul>
6	<ul> <li>Investigate impact of (lack of) age-standardisation of EHIS-based indicators.</li> <li>There are some findings of ESTAT.F4 on this issue. Eurostat computed age-standardised data for some indicators and because there were no significant differences with the original data, it was decided not to disseminate age-standardised data. Working group on Public Health Statistics and DG SANTE supported this decision.</li> </ul>	• InfAct	<ul> <li>Added: "Age standardisation is currently not foreseen by Eurostat"</li> <li>Check if rightfully applies to all EHIS-indicators</li> </ul>
7	<ul> <li>Investigate complementary or alternative sources for EHIS-based indicators as it measures only once every 6 years</li> <li>EU-SILC module on health (3-year periodicity; test in 2017; first implementation in 2022) is a potential candidate to fill gaps between 2 EHIS rounds; results can be analysed after 2022</li> </ul>	• InfAct	<ul> <li>Added: "possibly complemented with SILC data"</li> </ul>

	• Some indicators of health interventions chapter can be complemented with administrative statistic: vaccination and cancer (breast, cervical) preventive checks, resulting in adding b) version of indicators (57b, 58b, 59b).		• Address in new, sustainable, ECHI process
8	<ul> <li>Align the ECHI doc sheets and the ECHI tool; it is confusing that the ECHI tool contains indicators or operationalisations that are not in the ECHI</li> <li>For some EU policies, DG SANTE needs to present some European Health Indicators (EUHI) in the ECHI Data Tool. They are easily identified as they do not bear the 'ECHI' stamp.</li> </ul>	• InfAct	• Address in new, sustainable, ECHI process
9	After revision and alignment, increase attention to visibility of the ECHI tool	• InfAct	<ul> <li>Address in new, sustainable, ECHI process</li> </ul>
10	<ul><li>Align with SDG's</li><li>Among other in the policy areas</li></ul>	• Both	<ul> <li>Address in new, sustainable, ECHI process</li> </ul>
11	Align with data available from the joint questionnaire on non-monetary health statistics (JQNMHS) and the joint health accounts data collection (SHA).	• InfAct	<ul> <li>Address in new, sustainable, ECHI process</li> </ul>
12	<ul> <li>Consider the European Health Examination Survey (EHES) to support the ECHI (e.g. blood pressure, blood cholesterol, blood sugar)</li> <li>It is to note that EHIS also includes data on other measurements: <ul> <li>Self-reported screening of cardiovascular diseases and diabetes risks by sex, age and educational attainment level (hlth_ehis_pa2e)</li> <li>Having high blood lipids in the past 12 months (in EHIS wave 3)</li> </ul> </li> </ul>	• InfAct	• Address in new, sustainable, ECHI process
13	Consider indicator developments at <b>OECD</b> (check HAAG Europe/State of Health in the EU process) and <b>WHO</b> (check Global Health Observatory data repository, European Health Information Gateway)	• Both	<ul> <li>OECD and WHO are proposed as an essential part of the new process</li> </ul>
14	Extend age categories to include children where available, investigate data sources where not	• InfAct	<ul> <li>Address in new, sustainable, ECHI process</li> <li>See Chapter 3</li> </ul>
15	'Rationale' deserves systematic reviewing, in particular when there are figures provided in the rationale.	• EC	• Address in new, sustainable, ECHI process
16	Reference is often to ECHIM (SANCO) in the documentation sheets, check were this should be InfAct (SANTE) for current redrafting and ECHIM (SANCO) to remind previous recommendations?	• EC	<ul> <li>Metadata need to be checked: refer to InfAct or to future sustainable process?</li> </ul>
17	<ul> <li>EHIS wave 3 implementation schedule should already be systematically mentioned in documentation sheets:</li> <li>EHIS wave 3 was implemented as follows:</li> <li>2018: BE</li> <li>2019: most countries</li> </ul>	• EC	• Done



	2020: DE, MT and AT		
18	Consider including standardisation on age and sex for indicators related to healthcare, as healthcare usually grows exponentially with age, women are overrepresented among the elderly and age- distributions differ markedly between countries	• InfAct	• Address in new, sustainable, ECHI process
19	<ul> <li>ISARE data collection by region in Availability section: ISARE is no longer an active project, thus regional stratification of indicators formerly collected by this project are no longer available. However, the project defined the NUTS designation for regional stratification and continues to be relevant as background context to understand the NUTS regional designation, still used today in European data collection.</li> <li>The project reference has been moved from "availability" to the new section added to the documentation sheet, entitled: "Linkage to previous EU Projects and Concepts".</li> <li>The ISARE reference should also refer to I2SARE</li> </ul>	• InfAct	• Done
20	Replace The former Yugoslav Republic of Macedonia by North Macedonia	<ul> <li>InfAct</li> </ul>	• Done
21	Replace note in all comparability sheets that refers to Box 4 in 2012 report: "General note on comparability with national data See textbox 4 in chapter 2.4 of this report" In the textbox it reads: "General note on comparability with national data The figures presented in the HEIDI data tool might be different from those presented by national data providers. Reasons for these differences are variations in calculation methods and the time-lag between national data collection and delivery to international databases. Therefore, data from national sources is often more recent than international ones. Furthermore, figures can differ depending on the reference population (e.g. World standard population, EU standard population) used for age-standardisation to account for the variable age structure in specific countries." > Change to the following sentences within each comparability sheet: "The figures presented in the ECHI data tool might be different from those presented by national data providers. For example, national data may be more recent due to the time-lag between national data collection and delivery to the international databases, or figures may differ due to variation in the reference population used for age-standardisation".	• InfAct	• Done
22	<ul> <li>Discuss if the ECHI indicators with many operationalisations can serve as pointer to more detailed collections</li> </ul>	•	• Address in new, sustainable, ECHI process



#### Annex Technical 6: Indicator specific recommendations

(See Annex Technical 2 for access to the revised metadata)

Please also find there an overview of the indicators, in excel format.

## Table Indicator Specific Recommendations or Questions by project or external expert reviewers [In purple: pertain to ECHI tool; In red: pertain to semantic issues]

ECHI indicator <sup>33</sup> , Data source and Comments	More details	Implemented? YES / NO <sup>34</sup>
Demographic and socio-economic		
01. Population by sex/age		
Eurostat	demo_pjan, demo_pjangroup, demo_pjanbroad, demo_pjanind	
Age groups vary from ECHI tool - are the listed age groups (0-14, 15-24, 25-49, 50-64, 65-79 and 80+) still desired age subgroups?	Groups 15-64, 65+, 80-84, 85+ should be added in the EU context of ageing society which has an impact on health systems. These age groups exist in different Eurostat tables.	YES
Double check that old age dependency ratio is consistently defined throughout the doc sheet for population by sex/age (see operational indicators table)	<ul> <li>Eurostat calculates three versions of OADR:</li> <li>Old dependency ratio 1st variant (population 65 and over to population 15 to 64 years)</li> <li>Old dependency ratio 2nd variant (population 60 and over to population 20 to 59 years)</li> <li>Old dependency ratio 3rd variant (population 65 and over to population 20 to 64 years)</li> <li>However there is no breakdown of OADR by sex</li> </ul>	YES
Work to do: "Consider additional operationalization: population per age group as percentage of total population"	Population numbers are useful but when looking at population structure, percentages of total population are more interesting and can be compared between MS.	NO
In the first version in the Calculation section it was specified that there are two versions of calculation	The second version of OLDDEP is already mentioned in 'References'. Track changes - deleted the sentence "There are two versions available".	YES
Operational indicator 10110 " Ratio between the total number of elderly persons of an age when they are generally economically inactive (aged 65 and over) and the number of persons of working age (from 15 to 64)" <b>02. Birth rate, crude</b>	Added "(per 100 persons of working age)." And commented "It is a ratio, not a percentage."	YES
Eurostat	demo_gind	

 $<sup>^{33}</sup>$ Colours represent current availability status according to the 2012 documentation: white: implementation section (n=67), light grey: work in progress section (n=14), dark grey: development section (n=13)

<sup>&</sup>lt;sup>34</sup> YES: suggestion was implemented in the revised metadata sheets; NO: adress the suggestion in a new, sustainable, ECHI process.



ECHI indicator <sup>33</sup> Data source and Commonts	More details	Implemented?
02 Methor's age distribution		TES / NO
	20 um and 25 upper converse thifferent assisting for both the concernance	NO
Discuss policy relevance	is increased risk for child. Is it too indirect?	NU
Work to do section - "Monitor Eurostat and PERISTAT developments regarding indicator definition and data collection"	See with ESTAT.F2 if the ECHI operationalization can be implemented in the Eurobase: this indicator is measuring how many of the parturients are young (below 20) or old (above 35)	NO
04. Total Fertility Rate		
Eurostat	demo_frate, demo_find	
Discuss: is it still relevant to use an age definition of 15-49 yrs?	Eurostat calculates age specific fertility rates from age group 10-14 years old to age group 50+ years old; TFR includes also births in these age groups in the figure, even though the population is restricted to 15 to 49 years. The effect is very minimal (0.001 or less).	NO
NUTS3 Data are cited in Metadata Eurostat Database, but do not seem available there.	Regional fertility rates are available in the regional sub-folder of "Fertility" called "demofreg": at NUTS2 level age specific fertility rates and total fertility rate are available (demo_r_frate2) and at NUTS3 level total fertility rates are available (demo_r_find3)	YES
05. Population projections		
Eurostat	proj_19np	
Are age subgroups (0-24, 25-64, 65+) enough in an ageing society? Add 80+?	Harmonize age groups with ECHI 1, Add 80+ Eurostat table proj_19np provides data by single age <u>https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european- democracy/impact-demographic-change-europe_en</u>	YES
Calculation section "The population projections EUROPOP YYYY "convergence scenario" is used. This is based on the population on 1st January YYYY."	EUROPOP is a regular computation done by ESTAT, better leave any reference to a specific year. To be checked by ESTAT.F2.	YES
A paragraph in Calculation section "Assumptions have been developed in a conceptual framework where the socio-economic and cultural differences between EU Member States would fade away in the long run. This assumption implies a convergence of the most important demographic values. For example, in the (hypothetical) convergence year 2150, fertility is assumed to converge to levels achieved by MSs that are considered to be forerunners in the demographic transition. Life expectancy increases are assumed to be greater for countries at lower levels of life expectancy and smaller for those at higher levels. Migration is assumed to converge to zero net migration in 2150. These assumptions can be summarized by means of indicators such as total fertility rate,	This paragraph shoud be redrafted according to above remark and avoid specific dates to be replaced by 'in the long-term'.	NO, paragraph was removed



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
life expectancy at birth and net international migration for the target year 2081."		
Calculation section "The population projections EUROPOP YYYY "convergence scenario" is used. This is based on the population on 1st January YYYY."	EUROPOP is a regular computation done by ESTAT, better leave any reference to a specific year. To be checked by ESTAT.F2.	YES
Data availability section "Eurostat regularly calculates population projections for all EU Member States and EFTA countries. Population projection data from Eurostat are available by single age and sex from a baseline population. Regional data is currently unavailable"	For review by ESTAT.F2	NO
06. Population by education		
Eurostat, labour force survey (LFS)		
Explore usability of the Labour Force Survey (LFS), compare quality of LFS to EHIS social variables (EHIS periodicity is a disadvantage)	<ul> <li>Eurostat released under LFS results several sets of indicators related to education.</li> <li>In the main indicators section of the Eurostat database. Quarterly seasonally adjusted/non-adjusted data and annual data on employment/ unemployment by level of education attainment (ISCED 0-2 / 3-4 / 5-8) (other available breakdowns: age/sex)</li> <li>In the Eurostat database under the sections "LFS series - detailed quarterly survey results (from 1998 onwards)" and "LFS series - detailed annual survey results (Ifsa)", the following set of indicators including data on occupation (ISCO occupational groups) are available: employment by occupation and economic activity(Ifsq_eisn2) and employment by sex, age, professional status and occupation (Ifsq_egais).</li> <li>Non-adjusted data available by education level attainment, age groups, sex for the total population, active population, employed people, self-employed and employees, temporary, full time, part-time, inactivity, etc. Non response data is available under this section only.</li> <li>Occupation data is also available for each professional status and type of employment (temporary, part-time. full-time, first and second job). Data on previous occupations are available for unemployed people. In the sections "LFS series - detailed quarterly survey results (for 1998 onvarde)" and "LFS series - detailed quarterly sections are available for unemployed people.</li> </ul>	NO
Breakdowns: Are the 3 attainment groups based on the 7 classes of ISCED still relevant?	No other breakdowns than the 3 groups based on ISCED categories are available in the LFS results; ED0-2 : Less than primary, primary and lower secondary education (levels 0-2) / ED3_4: Upper secondary and post-secondary non-tertiary education (levels 3 and 4) / ED5-8: Tertiary education (levels 5-8)	NO
Discuss what is needed to monitor inequalities		



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
ECHI tool links to HLY, revise	Link has been removed, the indicator will be updated in the ECHI Data Tool once new recommendation is fixed.	YES
07. Population by occupation		
Eurostat, Jabour force survey (LFS)		
Not operational on the ECHI database	The indicator will be implemented in the ECHI Data Tool once new	NO
(https://ec.europa.eu/health/indicators/echi/list_en), although	recommendation is fixed.	
potential data sources (primarily Eurostat LFS data) are available, revise		
Breakdowns: are the 5 groups based on the 9 ESeC classes still relevant?	In Eurostat LFS data, the breakdowns are the major groups of the ISCO 08 (i.e. 10 groups)	NO
08. Total unemployment		
Eurostat, labour force survey (LFS)		
Check availability of requested dimensions	<ul> <li>Data on unemployment can be found in the Eurostat database (periodicity: monthly, quarterly and annual data). Quarterly data can be seasonally adjusted or non-adjusted. The breakdowns are plentiful:</li> <li>Sex, age, education and duration for adjusted data.</li> <li>Additional breakdowns like among other citizenship and country of birth can be found in the section LFS series - detailed annual survey results (lfsa) + LFS series - detailed quarterly survey results (from 1998 onwards) (lfsq)</li> </ul>	NO
09. Population below poverty line and income inequality		
Eurostat, EU statistics on income and living conditions (EU-SILC)		
Available measure in % and thousand, only % required by ECHI, is this still preferable?	To be discussed	NO
Health status		
10. Life expectancy		
Furostat	demo mlexpec, demo mlifetable	



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
For some countries data are presented only from the 1990's onwards	Added the "north" to Macedonia and provided a link	YES
(Cyprus, France, Liechtenstein, Poland, North Macedonia, the United	http://publications.europa.eu/code/en/en-5000500.htm	
Kingdom) and for Croatia and Latvia only from 2002 onwards.		
Data availability section "WHO-HfA data	Deleted this sentence and commented "Preferred source is Eurostat. There is no	YES
https://gateway.euro.who.int/en/datasets/european-health-for-all-	need to mention another source unless this other source brings something more	
database/#mortality-based-indicatorsfor life expectancy at age 1, 45, 65	than Eurostat statistics. Being the case, inform about the added value of the	
and at birth total/females/males."	other source in notes or references."	
	ESTAT computes projection of LE. It is worth mentioning:	NO
Notes section	Assumptions for life expectancy at birth by sex and type of projection	
	[proj_19nalexpy0]	
	From works normalative, it is important to have life available of total	VEC 35
Included additional operational indicators	population in order to have a kind of average	152
11 Infant Mortality	population in order to have a kind of average.	
Furestat	demo minf, demo minfs, demo minfind	
	This indicator becomes too generic for the EU population. It should be	NO
	complemented by an indicator on infants' causes of death	
	complemented by an indicator on infants' causes of acath.	
	Infant deaths occurring in the country by cause (hith cd info)	
	······································	
Indiantan name and content	Infant deaths occurring in the EU by cause and age (hlth_cd_infoeu)	
Indicator name and content	Peristat has analysed infant deaths by cause. The main causes are related to	
	perinatal problems (P) and congenital anomalies (Q): 78% of all deaths in EU	
	according to 2016 data. Other causes may be more interesting. Other medical	
	causes (13%) and external causes of injuries and poisoning (2%). For quality issues	
	R-codes (including SIDS) are also important to analyse. Their share is 7% with a	
	major country variation (0 to 17%)	
	Added "Socio-economic status (by educational level of mothers ISCED 3	YES
	aggregated groups: 0-2; 3+4; 5-8; if availablesee data availability and remarks)"	
Relevant dimensions	and commented partial data exists at Eurostat:	
	Infant mortality by mother's educational attainment level (ISCED11f) and father's	
	educational attainment level (ISCED11) [demo_minfedu]	
Comparison sneet: comparability over time (on flagging missing data)	Deleted text "with a footnote in the Heidi Table Chart" and commented They are	YES
broaks in series for ELL averages are flagged"	Tragged in the EUTI Data Tool because they are firstly flagged at the source	
Discuss with DEDISTAT	(Eurosiai).	

<sup>&</sup>lt;sup>35</sup>but the ID needs to be checked



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
12. Perinatal Mortality		
WHO-HFA	Doubts about this source as data is patchy. Preference to cover the indicator with ESTAT Causes of Death statistics. Eurostat collects from the countries on voluntary basis infant mortality by age in days (demo_minf, demo_minfs) and calculates Neonatal, Early neonatal, Perinatal and Late foetal mortality rates (demo_minfind). Deadline for data delivery for Eurostat's data collection on COD is two years after the end of the reference year.	NO and YES <sup>36</sup>
Calculation	<ul> <li>For information.</li> <li>Eurostat collects the following variables in the domain Causes of Death:</li> <li>Fetal deaths on voluntary basis. In addition, countries are asked to provide "Late Foetal Death - Group 1" (stillbirth with birth weight from 500 to 999 g or (when birth weight does not apply) gestational age from 22 to 27 weeks, or (when neither of the two applies) crown-heel length from 25 to 34 cm) and by "Late Foetal Death - Group 2" (stillbirth with birth weight of 1,000 g and more or (when birth weight does not apply) gestational age after 27 completed weeks, or (when neither of the two applies) crown-heel length of 35 cm or more).</li> <li>Neonatal death on a mandatory basis. The age groups are 0 days, 1-6 days and 7-27 days.</li> </ul>	NO
Compare quality HfA and EU CoD, latter more suitable now due to 2011 Regulation		NO
Discuss with Peristat	Peristat has a new recommendations	NO
13. Disease-Specific Mortality, 86 causes		
Eurostat	+ WHO-CISID (centralized information system for infectious diseases). Concerns about the sustainability of WHO-CISID, because it is patchy. It is preferable here to rely on one specific source, ESTAT, in order to compare figures between diseases and to see the percentage of one disease compared to all diseases. For this indicator, other possible sources like ECDC for communicable diseases or JRC/ECIS for cancer should be avoided.	YES
Evaluate current ECHI list of diseases: discuss rationale for inclusion/exclusion	Suggestions were added to the list: Hepatitis, Tuberculosis, COVID-19, Diabetes Mellitus, Homicide/Assault Removed: Swine flu (which was included with Influenza)	NO

<sup>&</sup>lt;sup>36</sup> Preferred source remains WHO-HfA



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
	Check numbering in this table	NO, entire
Number (a column in the definition table)		table needs to
		be revised
References	More recent ECDC reference should exist.	YES
Work to do section "WHO/CISID and process in documentation sheet	Was removed from work to do, but is still in Notes section.	NO
(request for clarification on regarding whether data is age-	No new preferred source yet.	
standardization yes/no pending at WHO-Euro)."		
	The OECD and ESTAT have coordinated their efforts to have a common	NO
Work to do section "2) more detailed discussions are needed on e.g.	methodology to present avoidable mortality for 75- (preventable/treatable)	
usefulness of an indicator for premature mortality for different	based on COD statistics.	
diagnoses and the cut-off point to use (<65, 0, </5?)."</td <td>The work is done, please advise on operationalization of these additional</td> <td></td>	The work is done, please advise on operationalization of these additional	
Evaluate additional enerationalizations: avaidable mortality	Indicators."	
Evaluate additional operationalisations: avoidable mortality	cov (blth cd apr)	
Comparability shoet "However, only one country (Greece) is surrently	Sex (IIIII_CU_dpi) Greece has been providing data according to ICD10 since reference year 2014	
still using the ninth revision of the ICD	Greece has been providing data according to icb to since reference year 2014	TLS
Comparability sheet "The coverage of residents dving abroad or non-	"ELLCOD statistics tackle the issue	VEC
residents dving in the reporting country can also affect the comparability	This is the reason why Eurostat's standardized death rates for general mortality	TES
among countries."	are computed based on the residence only	
	When revising the indicator (2017 EU aggregates are still missing), we will update	YES
ECHI tool notes that its regional data are three-year average, revise	the link to regional statistics with new ESTAT dataset.	
Investigate/compare data quality in HfA and Eurostat cause of death		NO
statistics.		
	SDRs are based on the 'residence concept' and therefore can only be calculated	YES, but also
Advocate timeliness of SDR's (quite far behind)	when all countries have submitted their data. The current delay for French 2017	address in new,
Autocate timetimess of SDR's (quite fair benind)	data is an exception.	sustainable,
		ECHI process
14. Drug-related deaths		
EMUDDA		10
ECHI tool uses absolute numbers, ECHI uses 'per 100.000 population',		NU
reconsider ECHI tool, discuss with EMCDDA		NO
Age groups available in ECHI tool (total, <25) vary from requested age		NU
groups (15-37 and aged 15-64 years), discuss	Operationalize the indicators accordingly (14.2) (	VEC
	Operationalize the indicators accordingly (14.2)/	IES
Age groups	Augi with operationalization of indicators (14.2)	



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Calculation "EMCDDA recommends in its current protocol that the	The link to the protocol could be added:	YES
definition is operationalised as follows:"	https://www.emcdda.europa.eu/html.cfm/index107404EN.html_en	
		) (FC
	2020 already available:	YES
References "http://www.emcdda.europa.eu/data/stats2018/methods/drd"	https://www.emcdda.europa.eu/data/stats2020/drd	
15 Smoking-related deaths		
	Consultation of SANTE B2	
Take into account new Eurostat data on avoidable mortality	Treatable and preventable mortality of residents by cause and sex [hlth_cd_apr]	NO
(preventable amenable treatable)	Treatable and preventable mortality of residents by eause and sex [ntin_eu_apr]	110
Discuss: is age 35 still considered best		NO
16. Alcohol-related deaths		110
	Take into consideration:	NO
	LC POIS: Alcohol-specific disorders and poisonings (E244, F10, G312, G621, G721,	
	1426, K292, K70, K852, K860, O860, R780, X45, X65, Y15)	
Take into account new Eurostat data on avoidable mortality	ALC OTH: Other alcohol-related disorders (K73, K740-K742, K746)	
(preventable, amenable, treatable)	Treatable and preventable mortality of residents by cause and sex [hlth_cd_apr]	
	"	
	Please note that it covers only deaths <75 years	
	According to the WHO global status report on alcohol and health 2018, alcohol	NO
	attributable mortality should be reported as Age-standardized alcohol-	
	attributable deaths per 100 000 people by the following disease category: A) all	
Consider WHO alcohol-attributable mortality as reference $37$	causes, B) Communicable, maternal, perinatal and nutritional conditions, c)	
consider who acconoract inducable mortality as reference	Noncommunicable diseases, d) Injuries	
	Data were obtained from the WHO Global Health Observatory by cause, age, sex	
	and year (2010 and 2016)	
Discuss name: "related" vs "attributable" (WHO & Eurostat)		
[LEHIS is used for consumption prevalence - indicator can be both under		
EHIS and regular		
17. Excess mortality by extreme temperatures		
Device a condition to Device and in the condition of the State of the	Marthum and Marthum and tables also and	NO
Revise according to Euromomo project complemented with monthly	weekly mortality is now available: demomwk.	NU
mortally statistics by Eurostat		

<sup>&</sup>lt;sup>37</sup> http://www.euro.who.int/en/health-topics/disease-prevention/alcohol-use/publications/2019/status-report-on-alcohol-consumption,-harm-and-policy-responses-in-30european-countries-2019-data-sources-and-methods



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Discuss adding excess mortality from other selected causes		NO
18. Selected communicable diseases		
ECDC	Consultation of SANTE.C3	
Unclear/discuss which diseases to report and whether ECDC can deliver		NO
what is needed.		
ECHI tool does not include stratification by age group, revise	Noted	YES
Notes "Commission Decision 2002/253/EC of 19 March 2002"	Please also refer to the 2013 decision	YES
	https://ec.europa.eu/health/communicable_diseases/overview_en	
Work to do section "Update list of selected communicable diseases for	Updated in April 2020.	YES
this indicator is still accurate. N.B.: last update based on 2006 data"		
Work to do section "Compiling the data from the surveillance reports	This is essential due to the lengthy operationalization of the indicator.	NO
requires a lot of manual work. ECHIM should therefore discuss with ECDC		
whether data can be provided by ECDC in data file format."		
19. HIV/AIDS		
EURO-HIV	Consultation of SANTE.C3	
Requested sex and age groups are not available in CISID databases,		NO
reconsider		
ECHI tool links to live births, rather than HIV/AIDS, revise	Update done in June 2020	YES
	http://ec.europa.eu/health/dyna/echi/datatool/index.ctm?indlist=19	110
20. Cancer Incidence		NU
	Align with latest developments and revise completely: check whether the loint	NO
	Research Centre (IRC) European Cancer Information System (ECIS) can be used:	
	Consultation of SANTE Cancer Team	
Globocan-JRC/ECIS	To add:	
	https://ec.europa.eu/health/non_communicable_diseases/cancer_en	
	Cancer burden statistics and trends across Europe   ECIS (europa.eu)	
ECHI tool classifies as indicator for development, revise (doc sheets:	Will be implemented when documentation sheet is revised	NO
implementation status)		
Linkage to previous projects	GLOBOCAN can be briefly referred to here.	YES
Work to do section "Seek feedback from IARC experts on precise	This is not valid anymore as JRC/ECIS presents data with different standard	NO
differences between GLOBOCAN and ECO databases (at least they use a	population and provides details on differences.	
different standard population in the age-standardisation (the World		
Standard Population vs. The European standard population)).		
21. (A) Diabetes: self-reported prevalence		
Eurostat, European Health Interview Survey (EHIS)		
Consider monitoring blood sugar		NO
21. (B) Diabetes, register-based prevalence		



ECHI indicator <sup>33</sup> Data source and Comments	More details	Implemented?
<b>Notes:</b> "Eurostat diagnosis-specific morbidity data activities are based on a shortlist of diseases covering. (60 diseases/disease groups)"	Suggestion not to refer to the exact number as it might be confusing for a reader without full, specific information: the shortlist as whole is longer, but pilot data collection is based on around 40 diseases/disease groupings. Part that is included in the shortlist, but not in the pilot data collection, is on neoplasms and infectious diseases.	YES
22. Dementia		
ECHI tool uses absolute numbers, ECHI uses 'per 100.000 population', reconsider ECHI tool		NO
Discuss appropriateness of current age operationalization: 65-84, 85+		NO
23. (A) Depression, self-reported prevalence		
Eurostat, European Health Interview Survey (EHIS)		
23. (B) Depression, register-based prevalence		
24. Acute Myocardial Infarction		
Discuss best data source	One of indicators collected also through ESTAT Morbidity pilot data collection, thus same information as in other parts about this project can be used also here.	NO
25. Stroke		
	One of indicators collected also through ESTAT Morbidity pilot data collection, thus same information as in other parts about this project can be used also here.	NO
26. (A) Asthma, self-reported prevalence	To consider 15-64 and 65+ age groups	YES
Eurostat, European Health Interview Survey (EHIS)		
Rationale: add a sentence on health and environment.		NO
26. (B) Asthma, register-based prevalence		
27. (A) COPD , self-reported prevalence	Rationale: add a sentence linking COPD to environment and health.	
Eurostat, European Health Interview Survey (EHIS)	Ť	
27. (B) COPD, register-based prevalence		
<ul> <li>Indicators:</li> <li>Number of individuals with low education (ISCED 0-2) that report COPD during the past 12 months, % of population.</li> <li>Number of individuals with medium education (ISCED 3, 4) that report COPD during the past 12 months, % of population.</li> </ul>	Last three indicators will not be available from Eurostat data. In addition, it is not clear what added value would be to have data by education level.	NO



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
• Number of individuals with high education (ISCED 5-8) that report COPD during the past 12 months, % of population.		
<b>Notes</b> "The ICD-10 codes applied in the calculation deviate slightly from the ICD-10 codes applied by Eurostat in their diagnosis-specific morbidity activities. Eurostat uses ICD-10 codes J40-J44, and J47. ICD-10 code J47 covers the diagnosis bronchiectasis. Bronchiectasis is not a common disorder nowadays in developed countries. Hence, its relevance for public health is limited. "	Eurostat collects two groups in the pilot data collection: 1) Chronic lower respiratory diseases other than asthma (incl. COPD) J40-J44, J47 2) Chronic Obstructive pulmonary disease (COPD) J44	YES
28. (Low) birth weight		
WHO-HFA		
Relevant policy areas	Added <b>"environmental health"</b> and commented "See below the Lancet article" and in the notes section commented "The Lancet article Pedersen, M. et al. (2013) <u>Ambient air pollution and low birthweight: a European cohort study</u> (ESCAPE) with more recent articles on the same subject."	YES
29 (A) Injuries: home, leisure <del>, school</del> ; self-reported incidence		
Eurostat, European Health Interview Survey (EHIS)		
School accidents are not included in EHIS, revise preferred data source or definition in order to use wave 2 and wave 3 data		YES <sup>38</sup>
Respondents who had a leisure accident with no care needed and road traffic accident with hospitalization would be included here; revise preferred data source or definition	Options: leave as is and mention data limitation in notes; or to include just one part of indicator (delete the 2 <sup>nd</sup> part)	NO
Rationale: Annually in the EU more than 60 million people receive medical treatment for an injury, for which an estimated 7 million are admitted to hospital. Two-thirds of all injuries occur in home and leisure environments - a trend that is on the increase in Europe. Numbers need to be checked.		NO
ECHI linkage for this indicator is not updated to current data (current 2008)	Waiting for update of the indicator	
29. (B) Injuries: home, leisure, school; register-based incidence		
IDB		
Follow-up on status of IDB		
30. (A) Injuries: road traffic; self-reported incidence		
Eurostat, European Health Interview Survey (EHIS)		
Respondents who had a leisure accident with no care needed and road traffic accident with hospitalization would be included here; revise preferred data source or definition	Options: leave as is and mention data limitation in notes; or to include just one part of indicator (delete the $2^{nd}$ part)	NO

<sup>38</sup> Definition and name of indicator was revised, school accidents are not included



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Rationale: The EU IDB estimates that road injuries account for 10% of all		NO
hospital treated injuries or a total of 4.3 million victims annually.		
Numbers need to be checked.		
30. (B) Injuries: road traffic; register-based incidence	Find more information on UNECE metadata	
UNECE (United Nations Economic Commission for Europe)		
UNECE database is not user-friendly, discuss. Example: finding age and		NO
education level?		
Investigate IDB as (contributing) data source		NO
Discuss appropriateness of age groups (currently 0-14, 15-24, 25-64, 65+)		NO
31. Injuries: workplace:		
Eurostat		
Discuss European Statistics on Accidents at Work (ESAW) vs. Labour Force		
Survey (LFS)		
32. Suicide Attempt		
	This indicator is recommended by WHO because for every suicide there are many	NO
	more people who attempt suicide every year, moreover suicide attempt is the	
	most important predictor of death by suicide in the general population.	
	For this reason, in 2016 WHO published a "Practice manual for establishing and	
	maintaining surveillance systems for suicide attempts and self-harm". According	
	to this suggestion, many countries are trying to establish a standardized	
	surveillance system.	
Follow up on SDG Indicator 3.4.2 (suicide rate) and/or follow		NO
developments within the SGPP that has mental health as a high priority		
topic		
Investigate IDB as (contributing) data source		NO
Consider development of surveillance systems and investigate medical		NO
records <sup>39</sup>		
33. Self-perceived health	Children data from EU-SILC module on children	
Eurostat, EU statistics on income and living conditions (EU-SILC)		
34. Self-reported chronic morbidity		
Eurostat, EU statistics on income and living conditions (EU-SILC)		
35. Long-term activity limitations	Children data from EU-SILC module on children	
Eurostat, EU statistics on income and living conditions (EU-SILC)		
36. Physical and sensory functional limitations		
Eurostat, European Health Interview Survey (EHIS)		

<sup>&</sup>lt;sup>39</sup> https://www.who.int/mental\_health/suicide-prevention/attempts\_surveillance\_systems/en



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
discuss age by sex stratification		
discuss inclusion of chewing difficulty	Propose not to include it, as it is 1) asked only to those aged 55+ and indicator as such refers to population 15+ (15-64, 65+) 2) was not involved in previous EHIS waves	NO
37. General Musculoskeletal Pain		
Discuss data source (no data collected in Eurostat); discuss relevance		NO
38. Psychological distress		
Follow developments within the SGPP (which has mental health as a high priority topic)		NO
39. Psychological wellbeing		
Follow developments within the SGPP (which has mental health as a high priority topic)		NO
40. Health expectancy: Healthy Life Years (HLY)		
Eurostat		
Discuss: how to find total (men and women together)?	Available in the Eurobase, ECHI 40 updated accordingly	YES
41. Health expectancy, others		
Eurostat		
Health determinants		
42. Body mass index		Discuss
Eurostat, European Health Interview Survey (EHIS)		
	Decide about inclusion of 15-17 year olds	NO
Discuss age groups	Decide about operationalisation/source for (younger) children	
	()	
43. Blood pressure		Discuss
Eurostat, European Health Interview Survey (EHIS)		
Note: An additional paragraph should explain the choice of specific age group 25+ for this indicator		NO
Discuss if FHES should be involved as a possible data source		NO
44. Regular smokers		
Furgetat European Health Interview Survey (EHIS)		
Luiostat, Luiopedii rieditti interview Suivey (Lins)	, induction of 15, 17 year olds	NO
	<ul> <li>Inclusion of 15-17 year olds</li> <li>constate operationalization for any group 15-24</li> </ul>	
Discuss age groups	• separate operationalization for (younger) children	
	• operationalisation/source for (younger) children	


	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Discuss use of alternative source	The following variable is asked in the EU-SILC module on health (from 2022 onwards, every 3 years): Frequency of tobacco use (including electronic cigarettes or similar electronic devices). This applies to more indicators.	NO
45. Brognant women smelling		
Notes: PERISTAT project has proposed an indicator "smoking during pregnancy for women with live and stillbirths (R8)" which is defined as "The number of women who smoke during the third trimester of pregnancy expressed as a percentage of all women delivering live or stillborn babies". When possible, data were collected for two time periods: an earlier (ideally, first trimester) and a later (ideally, third trimester) phase".	Replaced by: PERISTAT project has proposed an indicator "smoking during pregnancy for women with live and stillbirths (R8)" which is defined as "The proportion of women who smoke during pregnancy among those with live born or stillborn babies". When possible, data were collected for two time periods: an earlier (ideally, first trimester) and a later phase (ideally, the third trimester of pregnancy) ".	YES
46. Total alcohol consumption		
WHO GISAH <sup>40</sup>	Preferred data type and data source, and comparison sheet: EISAH removed, because any link to EISAH always refers to GISAH.	YES
Definition: 'per capita' removed, it has become part of the unit.		YES
47. Hazardous alcohol consumption		
Eurostat, European Health Interview Survey (EHIS)		
Discuss age groups	<ul> <li>inclusion of 15-17 year olds</li> <li>separate operationalization for age group 15-24</li> <li>operationalisation/source for (younger) children</li> </ul>	NO
Consider GISAH and JA RAHA	In the Global Information System on Alcohol and Health (GISAH) the indicator of Harms and Consequences section is the "Alcohol, harmful use (15+), 12 month prevalence" <u>https://www.who.int/data/gho/data/indicators/indicator-</u> <u>details/GHO/alcohol-harmful-use-(15-)-12-month-prevalence-(-)-with-95-ci</u> OECD refers to WHO data We also have to consider the survey carried out by the JA RARHA (WP4) in 19 MSs ( <u>http://www.rarha.eu/NewsEvents/LatestNews/Pages/details.aspx?itemId=36</u> ) and the second wave that are ongoing according to the EU Deep Seas service contract that will collect data in 33MSs	NO
48. Use of illicit drugs:		
EMCDDA		

<sup>40</sup> GISAH: Global Information System on Alcohol and Health



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Discuss name: "illicit" vs "illegal" (Eurostat)		NO, go with EMCDDA wording
Consider changing to specified drugs only (lots of variation/many footnotes)		
Data availability updated and made more straightforward		YES
Notes: Second bullet on limitations of population surveys: suggestion to remove "very marginalised forms of drug use (e.g. heroin injection), or"	Suggestion to add: hence the importance of complementing with data from targeted surveys (eg. web surveys of drug users or surveys in nightlife settings), though not representative of the general population.	YES
Notes: Third bullet: Why is LSD singled out? Suggestion to add "and other drugs"		YES
Comparison sheet: removed Comparability over time "For the time being, only a limited number of countries have long term series of national surveys with large sample sizes. Several countries have started series of national general population surveys in recent years. As these series continue the possibility of interpreting trends will increase." because this is no longer the case		YES
49. Consumption of Fruit		
Eurostat, European Health Interview Survey (EHIS)		
EU-SILC module on health will also ask the frequency of eating fruit		NO
(excluding any juice)		
50. Consumption of Vegetables		
Eurostat, European Health Interview Survey (EHIS)		
EU-SILC module on health will also ask the frequency of eating vegetables		NA
51. Breastfeeding:		
Discuss data source/definition/indicator with PERISTAT (it is no longer reported by PERISTAT); WHO Health for all collects data for breastfeeding at 3 and 6 months, but many countries don't have data.		NO
Relevant dimensions and subgroups: ses and region are more specified (3		YES
52. Physical Activity:		
Eurostat, European Health Interview Survey (EHIS)		
ECHI tool is linked to historical indicators (through 2008), updating link to current data required.	Updated in February 2020: http://ec.europa.eu/health/dyna/echi/datatool/index.cfm?indlist=52	YES
Discuss precise operationalisation		
53. Work related health risks:		



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
EUROFOUND		
See aggregation of occupation classes (ECHI 7)		NA
"% of employees who think that their health or safety is at risk because of their work" and "% of employees who think their health is negatively affected by their work" is not shown in the ECHI tool, revise	The indicator is split into 2 parts. In next update, titles will be redrafted to be easier understood: http://ec.europa.eu/health/dyna/echi/datatool/index.cfm?indlist=53a	NO
Added to not on All varidants of the countries monthland should pred 4F or	nttp://ec.europa.eu/nealtn/dyna/ecni/datatool/index.cfm?indiist=53b	VEC
older (16 or older in Bulgaria, Norway, Spain and the UK) and in employment at the time of the survey. Individuals were considered to be in employment if they had worked for pay or profit for at least an hour in the week preceding the interview (ILO definition).		TES
To do: Check with Eurofound whether it might be possible to use the 5		NO
groups of ESeC classes 1+2, 3+6, 4+5, 7, and 8+9 as described in the documentation sheet for indicator 7. Population by occupation		
54 Social support		
Eurostat, European Health Interview Survey (EHIS)		
Follow developments within the SGPP that has mental health as a high	Eurostat only disseminates the overall perceived support	NO
priority topic.		
55. PM10 (particulate matter) exposure:	Change to "PM (particulate matter) exposure"	YES
55. PM10 (particulate matter) exposure: Eurostat	Change to "PM (particulate matter) exposure"	YES
55. PM10 (particulate matter) exposure:         Eurostat         Include both PM2.5 and 10, rather than PM10 only, and update sheet accordingly	<ul> <li>Change to "PM (particulate matter) exposure"</li> <li>Already done in the ECHI Data Tool</li> <li>PM2.5, particulates whose diameter is less than 2.5 micrometers, are thought to be the most harmful ones. The indicator is a Sustainable Development Goal (SDG) indicator. It has been chosen for the assessment of progress towards Goal 11 on sustainable cities and communities and is a multi-purpose indicator for Goal 3 on good health and well-being.</li> <li>Rationale: "The smaller the particles the deeper they travel into the lungs, with more potential for harm."</li> <li>Data availability, linkage and references updated</li> <li>Suggestion about PM2.5 removed from work to do</li> <li>Added operational indicator + number</li> </ul>	YES
55. PM10 (particulate matter) exposure:         Eurostat         Include both PM2.5 and 10, rather than PM10 only, and update sheet accordingly         Check quality issues with data republished by Eurostat (check process AirBase/European Environmental Agency)	<ul> <li>Change to "PM (particulate matter) exposure"</li> <li>Already done in the ECHI Data Tool</li> <li>PM2.5, particulates whose diameter is less than 2.5 micrometers, are thought to be the most harmful ones. The indicator is a Sustainable Development Goal (SDG) indicator. It has been chosen for the assessment of progress towards Goal 11 on sustainable cities and communities and is a multi-purpose indicator for Goal 3 on good health and well-being.</li> <li>Rationale: "The smaller the particles the deeper they travel into the lungs, with more potential for harm."</li> <li>Data availability, linkage and references updated</li> <li>Suggestion about PM2.5 removed from work to do</li> <li>Added operational indicator + number</li> <li>Eurostat also publishes this EEA dataset in the context of the SDGs: https://ec.europa.eu/eurostat/databrowser/view/sdg_11_50/default/table?lang =en</li> </ul>	YES
55. PM10 (particulate matter) exposure:         Eurostat         Include both PM2.5 and 10, rather than PM10 only, and update sheet accordingly         Check quality issues with data republished by Eurostat (check process AirBase/European Environmental Agency)         Linkage error in the ECHI tool	<ul> <li>Change to "PM (particulate matter) exposure"</li> <li>Already done in the ECHI Data Tool</li> <li>PM2.5, particulates whose diameter is less than 2.5 micrometers, are thought to be the most harmful ones. The indicator is a Sustainable Development Goal (SDG) indicator. It has been chosen for the assessment of progress towards Goal 11 on sustainable cities and communities and is a multi-purpose indicator for Goal 3 on good health and well-being.</li> <li>Rationale: "The smaller the particles the deeper they travel into the lungs, with more potential for harm."</li> <li>Data availability, linkage and references updated</li> <li>Suggestion about PM2.5 removed from work to do</li> <li>Added operational indicator + number</li> <li>Eurostat also publishes this EEA dataset in the context of the SDGs: https://ec.europa.eu/eurostat/databrowser/view/sdg_11_50/default/table?lang =en</li> <li>Will be fixed</li> </ul>	YES YES YES
55. PM10 (particulate matter) exposure:         Eurostat         Include both PM2.5 and 10, rather than PM10 only, and update sheet accordingly         Check quality issues with data republished by Eurostat (check process AirBase/European Environmental Agency)         Linkage error in the ECHI tool         Health interventions: health services	<ul> <li>Change to "PM (particulate matter) exposure"</li> <li>Already done in the ECHI Data Tool</li> <li>PM2.5, particulates whose diameter is less than 2.5 micrometers, are thought to be the most harmful ones. The indicator is a Sustainable Development Goal (SDG) indicator. It has been chosen for the assessment of progress towards Goal 11 on sustainable cities and communities and is a multi-purpose indicator for Goal 3 on good health and well-being.</li> <li>Rationale: "The smaller the particles the deeper they travel into the lungs, with more potential for harm."</li> <li>Data availability, linkage and references updated</li> <li>Suggestion about PM2.5 removed from work to do</li> <li>Added operational indicator + number</li> <li>Eurostat also publishes this EEA dataset in the context of the SDGs: https://ec.europa.eu/eurostat/databrowser/view/sdg_11_50/default/table?lang =en</li> <li>Will be fixed</li> </ul>	YES YES YES YES
55. PM10 (particulate matter) exposure:         Eurostat         Include both PM2.5 and 10, rather than PM10 only, and update sheet accordingly         Check quality issues with data republished by Eurostat (check process AirBase/European Environmental Agency)         Linkage error in the ECHI tool         Health interventions: health services         56. Vaccination coverage in children:	<ul> <li>Change to "PM (particulate matter) exposure"</li> <li>Already done in the ECHI Data Tool</li> <li>PM2.5, particulates whose diameter is less than 2.5 micrometers, are thought to be the most harmful ones. The indicator is a Sustainable Development Goal (SDG) indicator. It has been chosen for the assessment of progress towards Goal 11 on sustainable cities and communities and is a multi-purpose indicator for Goal 3 on good health and well-being.</li> <li>Rationale: "The smaller the particles the deeper they travel into the lungs, with more potential for harm."</li> <li>Data availability, linkage and references updated</li> <li>Suggestion about PM2.5 removed from work to do</li> <li>Added operational indicator + number</li> <li>Eurostat also publishes this EEA dataset in the context of the SDGs: https://ec.europa.eu/eurostat/databrowser/view/sdg_11_50/default/table?lang =en</li> <li>Will be fixed</li> </ul>	YES YES YES YES



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Discuss whether the indicator definition still covers the relevant selected diseases		NO
Work to do updated: check with WHO-Europe why data in dataset for		YES
vaccination vary from years listed in "data available" within information		
bubbles per indicator in the indicator selection pane, on the left side of		
the HFA Database.		
57. Influenza vaccination rate in elderly	57a. Influenza vaccination rate in elderly	
Eurostat, European Health Interview Survey (EHIS)		
Discuss complementing EHIS data with yearly administrative data from health care statistics 57 a) EHIS data, 57b b) administrative data	<ul> <li>EHIS data is very useful to get an overview of socio-economic background of those vaccinated. However <u>yearly</u> administrative statistics can complete the picture avoiding remembering problems of respondents.</li> <li>Both sources/indicators are implemented in the ECHI Data Tool for monitoring vaccination at EU level.</li> </ul>	Metadata sheets to be drafted: distinguish between 57a and 57b
58. Breast cancer screening	58a. Breast cancer screening	
Eurostat, European Health Interview Survey (EHIS)		
Discuss complementing EHIS data with yearly (programme-based) administrative data from health care statistics: 58 a) EHIS data, 58b b) administrative data	Both sources/indicators are implemented in the ECHI Data Tool for monitoring breast cancer screening	Metadata sheets to be drafted: distinguish between 58a and 58b
59. Cervical cancer screening	59a. Cervical cancer screening	
Eurostat, European Health Interview Survey (EHIS)		
Discuss complementing EHIS data with yearly (programme-based) administrative data from health care statistics: 59 a) EHIS data, 59 b) administrative data		Metadata sheets to be drafted: distinguish between 59a and 59b
60. Colon cancer screening	60a. Colon cancer screening	
Eurostat, European Health Interview Survey (EHIS)		
Discuss complementing EHIS data with yearly (programme-based) administrative data from health care statistics: 60 a) EHIS data, 60 b) administrative data	Data from health care statistics but still under development by Eurostat	Metadata sheets to be drafted: distinguish



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
		petween 59a
FHIS answer categories (<12 months 1-5 years) do not allow calculation		
according to current definition "Screening in past 2 years".		
	Data exists. Discuss using Self-reported last colonoscopy by sex, age and	NO
Discuss: include colonoscopy next to faecal occult blood test?	educational attainment level (hlth_ehis_pa6e)	
61. Timing of first antenatal visit among pregnant women:		
Discuss best data source/operationalisation with PERISTAT	Data not collected on international level	
62. Hospital Beds:		
Eurostat		
	'Hospital beds': the unit should not appear in the title of the indicator; Name of	NO
Discuss name: "nospital beds" vs "nospital beds per 100.000" (Eurostat)	the indicator should stay generic without a specific unit. This information is given	
62 Practicing physicians:		
Furostat		
	In the Joint Questionnaire on Non-Monetary Health Statistics, the FTF for hospital	NO
Follow-up on data availability of FTE's	staff (physicians, nurses finidwives, health care assistants, other health service	110
	providers and other staff) are collected.	
Calculation: added to list: All physicians providing services for patients,		YES
including radiology, pathology, microbiology, haematology, hygiene.		
	Change to 'Practising nurses and midwives'	NO
64. Practicing nurses	Name kept as Practising nurses, but replaced 'nursing and caring professionals'	
	with nurses and midwives in definition and calculation.	
Eurostat		210
undate accordingly	Need to add what entails midwives, including coding to avoid confusion among categories of nurses	NU
In the ECHI tool there is additional operationalization of this indicator	This indicator completes the information on oral health.	NO
for dentists, discuss		
65. Mobility of health professionals	Was: "mobility of professionals"; Consider also: "health workforce migration"	
	Consider data source EU Single Market Regulated Professions Database:	NO
	https://ec.europa.eu/growth/tools-databases/regprof/	
Discuss data source		
	The ESTAT/OECD data are part of the Joint Questionnaire on Non-Monetary	
(1. Madical tasks algorized MPI write and CT approx	Health Statistics.	
bo. Medical technologies: MKI units and CT scans		
EUIUSIAL 67 Hospital in patient discharges, selected diagneses:		
or, nospital in-patient discharges, selected diagnoses.		



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Eurostat		
Discuss age standardisation (additional benefit: will limit the number of		NO
operationalisations)		
Discuss mid-year population rates (instead of end-year)		NO
Relevant policy areas: add (Preventable) Burden of Disease (BoD)		YES
Definition: population replaced by inhabitants		YES
Definition of indicator: discuss name for J40-44, J47 (Chronic Obstructive		YES
Pulmonary Disease and Bronchiectasis->Other lower respiratory disease)		
Relevant dimensions and subgroups: add sex		YES
Relevant dimensions and subgroups, and Operational Indicators: for	(still to be checked whether this is similar to asthma incidence indicator: nr 26;	CHECK
asthma suggestion to add age groups 15-64, 65+.	hospital admissions for asthma in particular relevant in children)	
Added two operationalisations: 2 age categories (named them 41258b,		YES
41258c)		
68.Hospital day-cases, selected diagnoses;		
Eurostat		
Discuss name: "selected" vs "limited"		NO
Discuss name for J40-44, J47		NO
Discuss age standardisation (additional benefit: will limit the number of		NO
operationalisations)		
Definition: population replaced by inhabitants		YES
	Definition: "A day-care discharge is the release of a patient who was <u>formally</u>	NO
Work to do: Clarify Eurostat definition of 'day-case'	admitted in a hospital for receiving planned medical and paramedical services,	
	and who was discharged on the same day."	
Add two operationalisations: 2 age categories	Relevant dimensions and subgroups, and Operational Indicators: for asthma	NO
	suggestion to add age groups 15-64, 65+ (named them 41358b and 41358c)	
69. Hospital day-cases as percentage of total patient population (in-		
patients & day-cases), selected diagnoses		
Eurostat		
· see 68		
Definition of indicator: discuss name for J40-44, J47 (Chronic Obstructive		NO
Pulmonary Disease and Bronchiectasis->Other lower respiratory disease)		
Add two operationalisations: 2 age categories	Relevant dimensions and subgroups, and Operational Indicators: for asthma	NO
	suggestion to add age groups 15-64, 65+ (named them 41458b, 41458c)	
70. Average length of stay (ALOS), limited diagnoses	Change to Average length of stay (ALOS), selected diagnoses	YES
Eurostat		
· see 68		



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Definition of indicator: discuss name for J40-44, J47 (Chronic Obstructive Pulmonary Disease and Bronchiectasic.) Other lower respiratory disease)		YES
Relevant policy areas: add (Preventable) Burden of Disease (BoD)		YES
Add two operationalisations: 2 age categories	Relevant dimensions and subgroups, and Operational Indicators: for asthma suggestion to add age groups 15-64, 65+ (named them 41557b, 41557c)	NO
71.General practitioner (GP) utilisation	DEVELOPMENT	CHECK
Eurostat, European Health Interview Survey (EHIS)		
Check data sources	Quality of current register-based data sources, suitability of EHIS	
Reconsider development status in the ECHI tool	Serve as pointer to more detailed collections? Only selected conditions (no day care possible)	NO
72.Selected outpatient visits		
Eurostat, European Health Interview Survey (EHIS)		
ECHI tool does not show "Self-reported visit to dentist or orthodontologist" (operational indicator) under this indicator but rather below it, without ECHI-stamp; check		NO
Consider revising definition/terminology	ECHI doc sheets use 1. "Dentist or orthodontist", 2. "medical or surgical specialist", 3.psychologist or psychotherapist', whereas EHIS/Eurostat use "mental health professional; general and specialist medical professional; dentist	NO
Discuss age-standardisation		NO
73. Surgeries: PTCA, hip, cataract		
Eurostat, European Health Interview Survey (EHIS)		CHECK
Definition: population replaced by inhabitants		YES
Calculation: Discuss adding total patients	The number of surgical operations and procedures performed in hospitals (by ICD- 9-CM) in a given year as <b>total patients</b> (day-cases or in-patient surgery), expressed as rates per 100,000 inhabitants (end of year population), for each selected category.	YES
74. Medicine use, selected groups		
Eurostat, European Health Interview Survey (EHIS)		
EHIS no longer predefines (or asks at all) what prescribed medication was taken for; discuss whether this still fulfils the ECHI rationale.		NO
Discuss complementing EHIS data with yearly administrative data from health care statistics	OECD Pharmaceutical consumption as a potential source? The potential of this source should be explored in details: <u>https://stats.oecd.org/BrandedView.aspx?oecd_bv_id=health-data-en&amp;doi=data-00545-en</u> <u>Pharmaceutical Market : Pharmaceutical consumption (oecd.org)</u> Pharmaceutical consumption according to the Anatomic Therapeutic Chemical Classification (ATC)/Defined Daily Dose (DDD) system, created by the WHO Collaborating Centre for Drug Statistics Methodology	NO

	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
75. Patient mobility		
Discuss data availability (by care episode type)		
Work to do: Discuss with Eurostat the dissemination of absolute numbers		YES
76. Insurance coverage		
OECD		
Discuss name (use OECD terminology?)		
Add additional operational indicator (42103) for total (public + private)		YES
Update data availability	Done, but needs to be checked	YES
77. Expenditures on health care		
Eurostat		
Make use of possibilities offered by the 2015 Regulation on health care		NO
financing statistics (joint health accounts data collection).		
fmillions of Durchasing Dower Standard' doos not allow direct	Purchasing power standard (PPS) per inhabitant is more appropriate; it is also	YES
comparison between Member States, revise	used in the State of Health in the EU	
companson between member states, revise	Replace with purchasing power standard (PPS) per inhabitant	
Operationalization by 'Purchasing power standard (PPS) per inhabitant'	Old operationalisation needs to be deleted	YES
is added(42213-42217)		
Discuss extending number of operationalizations by HE3	ICHA-HF Health care financing schemes: HF1 = compulsory schemes, HF2 =	YES
	voluntary schemes and HF3: Household out-of-pocket payment.	
	Current health care expenditure of resident units on health care goods and	YES
Discuss removing 'total health expenditures' from definition and	services for public, and private sectors, as percentage of gross domestic product	
operational indicators	(GDP), and expressed in millions of Purchasing Power Standard (PPS). Also	
	operationalized in purchasing power standard (PPS) per inhabitant.	
Calculation adapted		YES
Data availability and periodicity updated.		YES
All comparability issues replaced by "The comparability is insured by the		YES
application of common definitions (System of Health Accounts SHA2011)"		
78. Survival rates cancer		
EUROCARE replaced by ECIS Database from the European Commission	Align with latest developments: check whether the Joint Research Centre (JRC)	YES
and OECD Health Statistics (Health Care Quality Indicators)	European Cancer Information System (ECIS) can be used	
Data availability, notes, linkage to previous projects, references and		YES
work to do: update to reflect preference for ECIS and OECD as data		
source.		
Revise age categories (currently 0-64, 65+); discuss with ECIS		
Relevant policy areas: add: Non-communicable diseases (NCDs), chronic		YES
diseases, (Planning of) health care resources		



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Data periodicity	"Annually" replaced by "Estimates of survival are usually computed for a reference period of several years. These estimates are not available on a yearly basis."	YES
79. 30-day in-hospital case-fatality AMI and stroke		
OECD		
Relevant policy areas: add: Non-communicable diseases (NCDs), chronic diseases, (Planning of) health care resources		NO
Definition: make clear that numerator is admissions.		YES
This indicator is defined as the age-sex standardised percentage (per 100 hospital admissions)		
Data periodicity	annually instead of biannually	YES
Add operational indicators by sex.	AMI, males: 42401b; AMI, females: 42401c	YES
	stroke, males: 42402b; stroke, females: 42402c	
80. Equity of access to health care services		
Eurostat, EU statistics on income and living conditions (EU-SILC)		
Relevant policy areas: add: Planning of ) health care resources		YES
Reconsider definition	Self-declared unmet need for health care services. Defined as the proportion of people reporting unmet need for health care in the previous 12 months for reasons of financial barriers, long waiting lists and transportation problems	YES
Discuss requested age groups (16-64, 65 +); Eurostat/ECHI tool provides age group 16-64	EU-SILC survey is addressed to 16+	YES
Notes: adapt information on comparability	<ul> <li>There may be comparability issues due to cultural differences between countries and organization of the national health care services.</li> <li>Comparability of the results might be affected by the way the health questions are implemented in SILC at national level. Improved guidelines were provided by Eurostat in in some years</li> </ul>	YES
Notes: add to remark on age standardised data		NO
Notes: add note on ISCED	Standard dissemination in Eurobase is based on 3 ISCED groups: levels 0-2; levels 3 and 4; levels 5-8. Check with indicator 6 Population by education. For now adapted but check with ECHI 6: "ECHIM recommends calculating unmet needs by educational level using SILC data according to aggregated ISCED groups."	YES
Operational indicators: needs (plural) replaced by need (singular)	Standard dissemination in Eurobase is based on 3 ISCED groups: levels 0-2; levels 3 and 4; levels 5-8 -> operational indicators adapted to reflect this	YES
Add references to comparison sheet	https://ec.europa.eu/eurostat/cache/metadata/en/ilc_esms.htm, point 15.1 Comparability - geographical Also, <u>EU statistics on income and living conditions (EU-SILC) methodology</u>	YES



ECHI indicator <sup>33</sup> , Data source and Comments       YES / NO <sup>34</sup> Eurostat/ECHI tool also includes dental care within medical care, discuss.       80. Equity of access to health care services (1)       YES         B1. Waiting times for elective surgeries       0       0       0       0         Discuss source       0       0       0       0       0       0         22. Surgical wound infection       0		More details	Implemented?
Eurostat/ECHI tool also includes dental care within medical care, discuss.       60 Equity of access to health care services () European health care services () European health care services () European health care services ()       YES         B1. Waiting times for elective surgeries       0ECD data	ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
discuss       European headth indicator on equity of access to dental care services         81. Waiting times for elective surgeries       OECD data         Discuss source       OECD data         22. Surgical wound infection       YES         Discuss source       WHO Health for all data         Discuss ource (and relevance)       WHO Health for all data         Discuss data source (and relevance)       YES         Relevant policy areas: add: Preventable health risks       YES         Key issues and problems: add cervix cancer       Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?       YES         How does cancer screening interfere in cancer treatment delay?       NO         84. Diabetes control       NO         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes ranagement and control The name sounds like a simple blood examination for sugar.       YES         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes on Erge screepe.)       YES         Health interventions: health promotion       85. Policies on ETS exposure (Environmental Tobacco Smoke):       Rename to include "% of places"       YES         The aname to include "% of places"       Could it be envisaged to use Public places included in national smoke-f	Eurostat/ECHI tool also includes dental care within medical care,	80. Equity of access to health care services (I)	YES
81. Waiting times for elective surgeries       OECD data          Discuss source       OECD data       YES         ECHI tool is linked to OECD overall health care utilisation, may consider directing at waiting times specifically       YES         82. Surgical wound infection           Discuss source       WHO Health for all data          Discuss name "wound" vs "site" (ECDC)       NO          83. Cancer Treatment Delay           Discuss and relevance)           Relevant policy areas: add: Preventable health risks       YES          Key issues and problems: add cervix cancer       Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?       NO         84. Diabetes control       How does cancer screening interfere in cancer treatment delay?       NO         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       YES         Health interventions: health promotion       Rename to include "% of places"       YES         B5. Policies on ETS exposure (Environmental Tobacco Smoke):       Rename to include "% of places"       YES         WHO-Euro-Tobacco control       Could it be envisaged to use Public places included in national smoke-free legislation as preferred sou	discuss.	European health indicator on equity of access to dental care services	
Discuss source     OECD data       ECHI tool is linked to OECD overall health care utilisation, may consider directing at waiting times specifically     YES       82. Surgical wound infection     WHO Health for all data     MO       Discuss source     WHO Health for all data     NO       01scuss aname "wound" vs "site" (ECDC)     WHO Health for all data     MO       83. Cancer Treatment Delay     Sectors and relevance)     YES       Relevant policy areas: add: Preventable health risks     Viscuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?     YES       Key issues and problems: add cervix cancer     Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?     NO       84. Diabetes control     How does cancer screening interfere in cancer treatment delay?     NO       Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)     YES       Health interventions: health promotion     Rename to include "% of places"     YES       WHO- Euro-Tobacco-control     Could it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?     YES	81. Waiting times for elective surgeries		
ECH1 tool is linked to OECD overall health care utilisation, may consider       YES         directing at waiting times specifically       WHO Health for all data       Image: Constraint of the const	Discuss source	OECD data	
82. Surgical wound infection       WHO Health for all data       Image: Source of the second	ECHI tool is linked to OECD overall health care utilisation, may consider directing at waiting times specifically		YES
Discuss source       WHO Health for all data       Image: control for the system of the syste	82. Surgical wound infection		
Discuss name "wound" vs "site" (ECDC)       NO         83. Cancer Treatment Delay       Presentation         Discuss data source (and relevance)       YES         Relevant policy areas: add: Preventable health risks       YES         Key issues and problems: add cervix cancer       Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?       YES         Mew does cancer screening interfere in cancer treatment delay?       NO         84. Diabetes control       Change to: Diabetes management and control The name sounds like a simple blood examination for sugar.       NO         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       YES         Health interventions: health promotion       85. Policies on ETS exposure (Environmental Tobacco Smoke):       Rename to include "% of places"         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?       YES	Discuss source	WHO Health for all data	
83. Cancer Treatment Delay       Discuss data source (and relevance)       relevant policy areas: add: Preventable health risks       YES         Relevant policy areas: add: Preventable health risks       Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?       YES         Key issues and problems: add cervix cancer       Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?       YES         84. Diabetes control       How does cancer screening interfere in cancer treatment delay?       NO         84. Diabetes control       Change to: Diabetes management and control The name sounds like a simple blood examination for sugar.       NO         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       YES       YES         Health interventions: health promotion       Rename to include "% of places"       VES       YES         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?       YES	Discuss name "wound" vs "site" (ECDC)		NO
Discuss data source (and relevance)       YES         Relevant policy areas: add: Preventable health risks       YES         Key issues and problems: add cervix cancer       Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?       YES         Mo       How does cancer screening interfere in cancer treatment delay?       NO         84. Diabetes control       Change to: Diabetes management and control The name sounds like a simple blood examination for sugar.       NOT YET         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       YES       YES         Health interventions: health promotion       Rename to include "% of places"       YES         WHO-Euro-Tobacco control       Could it be envisaged to use Public places included in national smoke-free Legislation as preferred source and as indicator definition?       YES	83. Cancer Treatment Delay		
Relevant policy areas: add: Preventable health risks       YES         Key issues and problems: add cervix cancer       Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?       YES         Key issues and problems: add cervix cancer       How does cancer screening interfere in cancer treatment delay?       NO         84. Diabetes control       Change to: Diabetes management and control The name sounds like a simple blood examination for sugar.       NOT YET         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       YES       YES         Health interventions: health promotion       Rename to include "% of places"       YES         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?       YES	Discuss data source (and relevance)		
Key issues and problems: add cervix cancerDiscuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?YESKey issues and problems: add cervix cancerHow does cancer screening interfere in cancer treatment delay?NO84. Diabetes controlChange to: Diabetes management and control The name sounds like a simple blood examination for sugar.NOT YETWork to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference 	Relevant policy areas: add: Preventable health risks		YES
How does cancer screening interfere in cancer treatment delay?NO84. Diabetes controlChange to: Diabetes management and control The name sounds like a simple blood examination for sugar.NOT YETWork to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)YESHealth interventions: health promotion 85. Policies on ETS exposure (Environmental Tobacco Smoke):Rename to include "% of places"YESWHO-Euro Tobacco control Legislation as preferred source and as indicator definition?YESYES	Key issues and problems: add cervix cancer	Discuss: is it appropriate to choose the following cancers: breast, cervix and colorectal cancer?	YES
84. Diabetes control       Change to: Diabetes management and control The name sounds like a simple blood examination for sugar.       NOT YET         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       YES         Health interventions: health promotion       Rename to include "% of places"       YES         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?       YES		How does cancer screening interfere in cancer treatment delay?	NO
04. Diabetes control       The name sounds like a simple blood examination for sugar.         Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       YES         Health interventions: health promotion       Rename to include "% of places"       YES         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?       YES	84 Dishotos control	Change to: Diabetes management and control	NOT YET
Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)YESHealth interventions: health promotionRename to include "% of places"YES85. Policies on ETS exposure (Environmental Tobacco Smoke):Rename to include "% of places"YESWHO-Euro Tobacco controlCould it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?YES	64. Diabetes control	The name sounds like a simple blood examination for sugar.	
Work to do: add: Needs further development, consider whether this is a priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)YESHealth interventions: health promotionRename to include "% of places"YES85. Policies on ETS exposure (Environmental Tobacco Smoke):Rename to include "% of places"YESWHO-Euro Tobacco controlCould it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?YES			
priority indicator to demonstrate quality of diabetes care (see Reference Diabetes Plans across Europe.)       Image: Comparison of the second s	Work to do: add: Needs further development, consider whether this is a		YES
Diabetes Plans across Europe.)       Health interventions: health promotion       Health interventions: health promotion         85. Policies on ETS exposure (Environmental Tobacco Smoke):       Rename to include "% of places"       Health interventional smoke-free         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free       YES         The indicator is entidated as the point a composite indicator if takes into       The indicator definition?       YES	priority indicator to demonstrate quality of diabetes care (see Reference		
Health interventions: health promotion       85. Policies on ETS exposure (Environmental Tobacco Smoke):       Rename to include "% of places"         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free legislation as preferred source and as indicator definition?       YES	Diabetes Plans across Europe.)		
85. Policies on ETS exposure (Environmental Tobacco Smoke):       Rename to include "% of places"         WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free         Image: The indicator is eutdated as the bing a composite indicator it takes into       YES	Health interventions: health promotion		
WHO-Euro Tobacco control       Could it be envisaged to use Public places included in national smoke-free       YES         The indicator is outdated as being a composite indicator, it takes into       Legislation as preferred source and as indicator definition?       YES	85. Policies on ETS exposure (Environmental Tobacco Smoke):	Rename to include "% of places"	
The indicator is outdated as being a composite indicator, it takes into	WHO-Euro Tobacco control	Could it be envisaged to use <u>Public places included in national smoke-free</u>	YES
The indicator is outdated as the boing a composite indicator, it takes into		legislation as preferred source and as indicator definition?	
The indicator is outdated as - being a composite indicator - it takes into	The indicator is outdated as - being a composite indicator -it takes into		
account only various places but fails to capture specific rules for Discuss suitability of WHO Child and Adolescent Health Indicator "percentage of	account only various places but fails to capture specific rules for	Discuss suitability of WHO Child and Adolescent Health Indicator 'percentage of	
emerging product categories (neated tobacco, e-cigarettes). The current public places included in national smoke free legislation. If suitable, then change	emerging product categories (neated tobacco, e-cigarettes). The current	public places included in national smoke free legislation. If suitable, then change	
construction would be misleading for any companisons. documentation sneet accordingly	construction would be misleading for any comparisons.	documentation sneet accordingly	
It has been impossible to access this database (WHO tobacco control	It has been impossible to access this database (WHO tobacco control		
database) for a while. We suggest to use the indicator Percentage of	database) for a while. We suggest to use the indicator Percentage of		
public places included in national smoke-free legislation out of a list of	public places included in national smoke-free legislation out of a list of		
eight public places (health-care facilities, educational facilities other	eight public places (health-care facilities, educational facilities other		
than universities, universities, government facilities, indoor offices,	than universities, universities, government facilities, indoor offices.		
restaurants, pubs and bars, public transport).	restaurants, pubs and bars, public transport).		



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
The only place not considered by the indicator is theatres and cinemas.		
The indicator provides trends with data for 1007, 2010, 2012 and 2014.		
All links leading to the database have been broken for a long period.		
Add two relevant policy areas:		YES
Preventable health risks-Life style, health behaviour		
Child health (including young adults)		
Add to work to do	Inquire about WHO-Euro tobacco control database accessibility	YES
86. Policies on healthy nutrition:		
May consider WHO 'NCD Progressess Monitor' which defines unhealthy diet reduction measures as: Salt/Sodium policies; Saturated fatty acids and trans-fat policies; Restrictions on marketing to children; Restrictions on marketing of breast-milk substitutes.		YES
Discuss whether the scope should be broadened to include sustainability, environmental-friendly nutrition, food insecurity and agricultural promotion policies.	Relevant policy areas: add Environmental health Definition: It is also important to consider the sustainability perspective: http://www.fao.org/3/ca6640en/ca6640en.pdf https://ec.europa.eu/food/farm2fork_en Add to key issues: New topics like a fair, healthy and environmentally-friendly nutrition or food insecurity should be taken into consideration. Food insecurity ESTAT indicator:Inability to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day - EU-SILC survey (ilc_mdes03) Data availability: Any reference in promotion of food and agricultural policies? Work to do: food policy: Also possible to compare with agricultural promotion policies?	NO
Add to notes	https://www.jpi-pen.eu/images/reports/20200904_Food-EPI_EU.pdf (Food-EPI).	YES
References	References: <u>WHO-Europe, Nutrition policy Survey</u> : This source brings very general information and is not detailed enough to know on which nutrition aspects Member States act. Remove	YES
87. Policies and practices on healthy lifestyles:		
May consider WHO 'NCD Progress Monitor' which distinguishes measures targeted at alcohol, smoking and physical activity.		NO
Ensure to differentiate this indicator from the healthy nutrition indicator, above.		NO



	More details	Implemented?
ECHI indicator <sup>33</sup> , Data source and Comments		YES / NO <sup>34</sup>
Discuss rationale		NO
Broader approach by including 'environmental health' (in relevant policy		YES
areas), 'environmental determinants of health' (in definition) and 'air		
pollution' (in key issues and problems)		
88. Integrated programs in settings, including workspaces, schools,		
and hospitals:		
Discuss rationale		NO
Consider WHO indicators		NO
Include 'institutions for older people' in definition		YES



# Annex Visibility 1: Update checklist for the ECHI information repository

The below checklist aims to assist in the maintenance of the ECHI page on the European Health Information Portal.

Recommended actions	Example	Check
Use of ECHI by international projects		
• Take stock of and encourage (international) projects to use ECHI indicators.	• The Joint Action Health Equity Europe (JAHEE)	At the start of health information projects.
Uptake of ECHI by Member States		
• Install a single access point to report the use of ECHI by Member States	<ul> <li>National websites</li> <li>Austria: website ECHI</li> <li>Germany: website ECHI</li> <li>Lithuania: database including ECHI</li> <li>Netherlands: ECHI indicators</li> <li>Portugal: database including ECHI</li> <li>Spain: website ECHI</li> <li>National reports</li> <li>Dare to compare (pdf; The Netherlands, 2008)</li> <li>La Santé en France et en Europe: convergence et contrastes (pdf; France, 2012)</li> </ul>	Continuously
<ul> <li>Send annual questionnaires directed at Member States to collect national uptake of ECHI</li> </ul>		Annually
Check the use of ECHI indicators in strategic (international) reports		
State of Health in the EU cycle DG Sante in collaboration with OECD	<ul> <li><u>Country health profiles</u></li> <li><u>Health at a Glance: Europe</u></li> </ul>	November every year <sup>41</sup>
Health at a Glance (OECD)	• <u>Health at a Glance</u>	November every other year <sup>42</sup>
Check ECHI in official EU documentation		
Decision papers and regulations by the European Commission.	<ul> <li>Decision No 1400/97/EC</li> <li>Regulation No 1338/2008</li> <li>Amendments</li> </ul>	Annually

#### Table: checklist ECHI page on Health Information Portal



 <sup>&</sup>lt;sup>41</sup> Country health profiles alternate with Health at a Glance Europe
 <sup>42</sup> Health at a Glance alternates with Health at a Glance Europe

## Annex Visibility 2: ECHI user-friendly overview

InfAct reviewed the ECHI metadata (see chapter V) and based on the updated metadata files prepared an indicator summary table (see embedded Excel file, also accessible <u>here</u>).



The purpose of this table is to provide users with an overview of basic information about ECHI in a structured way (see Figure 1) and visualize the metadata, for example using Power BI (see Figure 2). This summary table will first introduce the user to the ECHI basics. Then, the user can choose in a more targeted way which metadata he/she want to access.

Basic information (variables) from the metadata is included in the data table (see excel file). The overview table can be modified as needed and new classifications can be added to build a comprehensive picture of the ECHI shortlist.

For example, for future use, dimensions could be added to evaluate and group indicators using health system performance assessment (HSPA) framework domains: structure, process, and outcome (short and long-term). Each section could be split by more dimensions as resources or process (see excel file) etc.<sup>43</sup>





<sup>43</sup><u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6919304/;</u> <u>https://www.euro.who.int/\_\_data/assets/pdf\_file/0004/135976/E94887\_Part\_VI.pdf</u>



### Figure 2. Example of data visualization using Power BI





#### Disclaimer:

The content of this report represents the views of the authors only and their sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Consumers, Health, Agriculture and Food Executive Agency (CHAFEA) or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.

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