

# The Global Health Observatory (GHO) Home for injury indicators?

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# Rational

- WHO's work on data and statistics is a core activity, mandated in the Organization's constitution
- Production and dissemination of internationally comparable data and statistics for all Member States is a key activity for WHO
- WHO collects, analyses and synthesizes a large amount of health-related data from Member States
- Data are often collected by individual departments on specific health topics, and kept in distinct databases
- Users often find it difficult to identify and access the data they need to answer specific questions
- The increasing demand for health information requires a dynamic approach to analyzing, synthesizing and communicating relevant information to users

# Scope

- The GHO is WHO's gateway to accurate, timely health-related data and statistics from around the world.
- The GHO database is the World Health Organization's main health statistics repository
- It will support data underpinning health policies and programmes by:
  - compiling and verifying major sources of health data within WHO
  - providing easy access to country data and statistics
  - analyzing data and presenting scientifically sound information in user-friendly formats with basic metadata

## Aim

- GHO aims to enhance the quality of WHO's work in the area of health statistics and improve access to data and analyses of health situation and trends
- It is an Organization-wide activity with strong links to the regional and country offices

## Target audience

- Main target audiences are policymakers and public health professionals (in practice, research and education) in Member States and international organizations, the general public and the media

# Goals

The goal of GHO is to improve the efficiency of data and metadata preparation, storage, access, management and dissemination of statistical products

# Products

GHO disseminates information in three ways:

- a **web portal** providing one entry-point to WHO's statistics and analyses
- a **data repository** that includes easy links to all major data bases
- **analytical reports** on specific and cross-cutting topics

# Portal

- The GHO web portal provides the world with up-to-date, easily accessible information on priority health topics.
- It is accessible directly from the main WHO web page and provides access to **theme pages**, key **data views** and a **data repository**.

# Theme pages

- Cover specific global health priorities such as the health MDGs, women and health, equity, mortality and the burden of disease, disease outbreaks, and health systems

Each theme page provides :

- **Global situation and trends highlights**, using core indicators that are regularly updated
- **Database** views customized for each theme
- **Major publications** relevant to the theme
- **Links to relevant web pages** within WHO and elsewhere



# Data Views

Country profiles will consist of

- **standardized data presentation** for Member States which includes cross-cutting and programme-**specific indicators**.

Map gallery provides

- a series of easily **downloadable maps** on key health topics

# Data Repository

- The GHO will provide access to an **interactive data** repository containing health statistics from across WHO.
  - The data presented in the GHO will meet minimum standards for data quality, including detailed metadata
- Users will be able to **download data sets** in various formats, display data for selected indicators, health topics, countries and regions, and download the customized tables in pdf or Excel formats
- The data repository web pages will also be linked to the WHO Indicator and Metadata Registry

# Reports

- The GHO will issue analytical reports on the current situation and trends for priority health issues
- A key output of the GHO is the annual publication World Health Statistics, which compiles statistics for key health indicators on an annual basis
- GHO will issue analytical reports on cross-cutting topics such as the report on Women and Health
- Programme-specific analytical reports will become widely accessible
- The GHO will ensure that the same scientific standards are followed for data collection, analysis and presentation of all health-related indicators

# Standards

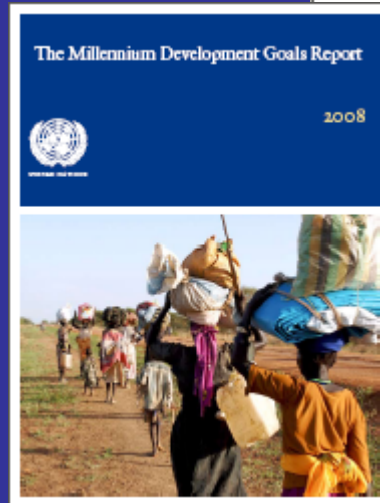
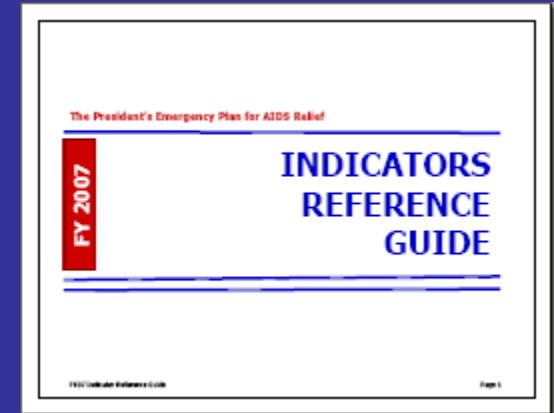
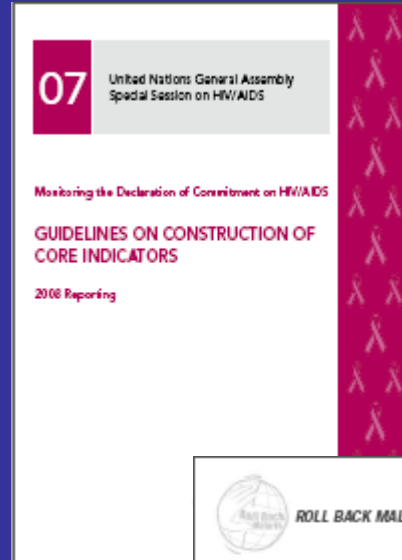
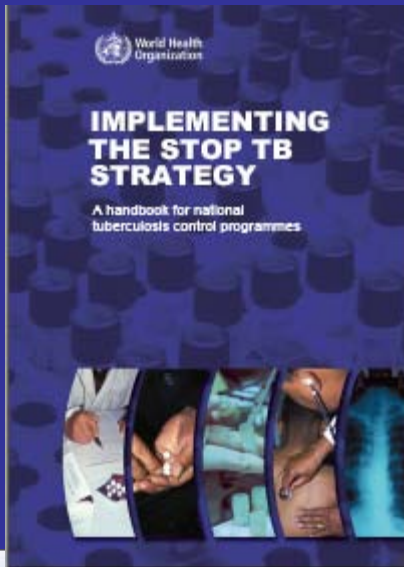
To improve WHO's work in data and statistics the Global Health Observatory has established common standards for data management, analysis and publishing /communication.

**What problems are we  
trying to solve?**

# Data standards

- This will help overcome fragmentation, with different WHO programmes and regional offices operating databases that have different standards and approaches.
- Standards help improve data management, permit quality control and facilitate data exchange between programmes, WHO offices and with countries

# 1. Multitude of Guidelines Documents



## 2. Inconsistent and Incomplete Definitions and Documentation

Indicator	Source
HIV prevalence among population aged 15-24 years	<a href="http://www.mdgmonitor.org/goal6.cfm">www.mdgmonitor.org/goal6.cfm</a>
Percentage of young women and men aged 15–24 who are HIV infected	<a href="http://data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf">data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf</a>
Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS	<a href="http://www.mdgmonitor.org/goal6.cfm">www.mdgmonitor.org/goal6.cfm</a>
Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS	<a href="http://www.unmillenniumproject.org/goals/gti.htm">www.unmillenniumproject.org/goals/gti.htm</a>
Percentage of young people who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV	<a href="http://www.theglobalfund.org/documents/me/M_E_Toolkit.pdf">www.theglobalfund.org/documents/me/M_E_Toolkit.pdf</a>
Percentage of young women and men aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	<a href="http://data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf">data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf</a>
Ratio of orphaned children compared to non-orphaned children aged 10-14 who are currently attending school	<a href="http://www.theglobalfund.org/documents/me/M_E_Toolkit.pdf">www.theglobalfund.org/documents/me/M_E_Toolkit.pdf</a>
Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years	<a href="http://www.unmillenniumproject.org/goals/gti.htm">www.unmillenniumproject.org/goals/gti.htm</a>
Current school attendance among orphans and among non-orphans aged 10–14	<a href="http://data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf">data.unaids.org/pub/Manual/2007/20070411_ungass_core_indicators_manual_en.pdf</a>
Percentage of people with advanced HIV infection receiving antiretroviral combination therapy	<a href="http://www.theglobalfund.org/documents/me/M_E_Toolkit.pdf">www.theglobalfund.org/documents/me/M_E_Toolkit.pdf</a>
Proportion of population with advanced HIV infection with access to antiretroviral drugs	<a href="http://www.mdgmonitor.org/goal6.cfm">www.mdgmonitor.org/goal6.cfm</a>



# 3. Interoperability

- Syntactic (via SDMX-HD)
  - UN and partners
  - Local systems
  - Data providers, e.g. DHS Macro
- Semantic
  - 'Indicator A (Females)'
  - 'Indicator A' disaggregated by gender

# Metadata

At a minimum, the metadata should include:

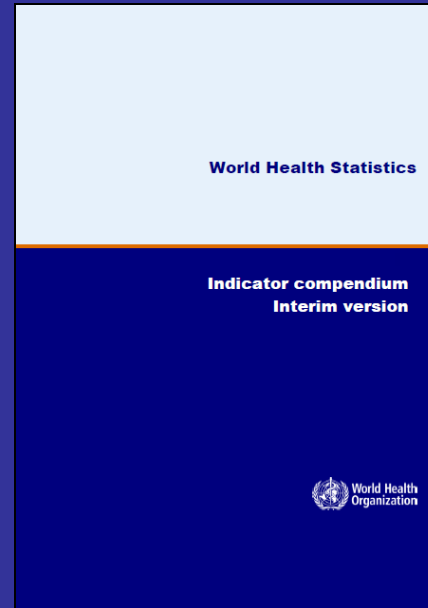
- **Indicator definition:** the Indicator and Metadata Registry should be completed, including all reference metadata
- **Statistical population and scope of the data point:** country, year, sex, province etc. which allow disaggregation. For all variables standard code lists should be used
- **Data source:** the reference to the source of the information
- **Type of data adjustment or "manipulation."** Description of whether the statistics are unadjusted, adjusted (including the adjustment method), or predicted, on the basis of a statistical analysis (prediction out of sample or out of time)

# Indicator and Measurement Registry (IMR)

- The WHO IMR is a central source of indicator definitions, in text and computer-readable formats.
- It facilitates complete and well-structured indicator metadata, harmonization and management of indicator definitions and code lists, internet access to indicator definitions, and consistency with other statistical domains.
- It promotes interoperability through standard data exchange formats.

# Other Benefits

- *Custom dictionaries with international standard metadata for:*
  - Thematic Reference Groups
  - Programmes
  - Organizations



World Health Statistics indicator compendium

**Adult mortality rate (probability of dying between 15 to 60 years per 1000 population)**

Indicator ID	64
Name	Adult mortality rate (probability of dying between 15 to 60 years per 1000 population)
Topic	Mortality and burden of disease
Rationale	Disease burden from non-communicable diseases among adults - the most economically productive age span - is rapidly increasing in developing countries due to aging and health transitions. Therefore, the level of adult mortality is becoming an important indicator for the comprehensive assessment of the mortality pattern in a population.
Definition	Probability that a 15 year old person will die before reaching his/her 60th birthday.
Associated terms	The probability of dying between the ages of 15 and 60 years (per 1 000 population) per year among a hypothetical cohort of 100 000 people that would experience the age-specific mortality rate of the reporting year. Life table: A set of tabulations that describe the probability of dying, the death rate and the number of survivors for each age or age-group. Accordingly, life expectancy at birth is an output of a life table.
Preferred data sources	Civil registration with complete coverage
Other possible data sources	Household surveys Population census Sample or sentinel registration systems
Measurement method	Civil or sample registration: Mortality by age and sex are used to calculate age specific rates. Census: Mortality by age and sex tabulated from questions on recent deaths that occurred in the household during a given period preceding the census (usually 12 months). Census or surveys: Direct or indirect methods provide adult mortality rates based on information on survival of parents or siblings.
Method of estimation	Empirical data from different sources are consolidated to obtain estimates of the level and trend in adult mortality by fitting a curve to the observed mortality points. However, to obtain the best possible estimates, judgement needs to be made on data quality and how representative it is of the population. Recent statistics based on data availability in most countries are point estimates dated by at least 3-4 years which need to be projected forward in order to obtain estimates of adult mortality for the current year. In case of inadequate sources of age-specific mortality rates, the tables are derived from estimated under-5 mortality rates using a modified age system, a model developed by WHO to which a global standard is applied.
Method of estimation of regional and global estimates	Predominant type of statistics: predicted In GHO, the numbers of deaths estimated from life tables and population by age mortality rates, are aggregated by relevant region in order to compute age specific mortality rates, then the adult mortality rate.
Disaggregation	By sex By location (urban/rural) By major region By province or similar level By education level

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# Demo...

- WHO RS database
- WHO RS theme pages

[http://webitpreview.who.int/entity/gho/road\\_safety/en/](http://webitpreview.who.int/entity/gho/road_safety/en/).

# Other Benefits (cont.)

- *Federated maintenance with public access*
- *Collaboration*
  - Internal (GIS, CHI, ITT, VIP)
  - Partners (UNDP, UNODC, UNICEF)
- *Compatibility with International Standards*
  - Complete and well-structured metadata
  - Common definitions and identifiers
  - Consistency with other statistical domains

# Procedural Issues

- Moderation to minimize redundant indicators and metadata.
  - Indicators
  - Metadata profiles
  - Codesets
- Administration of security.
- Harmonization functionality for indicators and codesets.
- Requests for inclusion in IMR



# For More Information

- IMR
  - Public
  - Private

<http://extranet.who.int/IndicatorRegistry>
- Indicator Management

<http://www.who.int/whosis/indicators/en/>
- SDMX-HD

[http://groups.google.com/group/sdmx\\_hd?lnk=iggc](http://groups.google.com/group/sdmx_hd?lnk=iggc)

# Conclusion

- Timely tool for the work of ICE on indicators
  - Mortality indicators
- Opportunities for future collaboration on many areas.



# Opportunities for collaboration

- Technical collaboration
  - Development of normative documents, tools and instruments
  - Preparation of technical reports on pre-defined topic
- Facilitating collaboration
  - Capacity development (regional and national training)
  - Preparation of manuscripts and discussion papers on various topics
  - Multi-center research
  - Injury Reference Group???



# Discussion points

- What do policy makers and program officers need to know (now, in few years)?
- How to work with countries to define their own priorities and systems
- Where to invest given the IT advances and opportunities
  - To facilitate timely data collection and dissemination
  - To provide useful/"actionable" information
- What opportunities exist for technical collaboration
- Where do we (countries, the field) want to be in 2 years? 5 years?



**Thank You!**