

Dialogue on Statistical Development with International Agencies

WORLD HEALTH ORGANIZATION



World Health
Organization

WHO Constitution 1947

"... establish and maintain
epidemiological and statistical services;

... assist in developing an informed public opinion
among all peoples on matters of health;..."



Statistics in WHO: the context

- Statistics underpin the work of the Organization; foundation for analytical studies, policy analyses, advocacy
- Decentralized model of data collection and analysis:
 - At global, regional, country offices
 - By disease-focused programmes
- Absence of Organization-wide data quality standards
- Poor statistical infrastructure – especially IT
- Fragmentation, inconsistencies between programmes and across levels of the Organization, duplication of effort

| 26 February, 2009



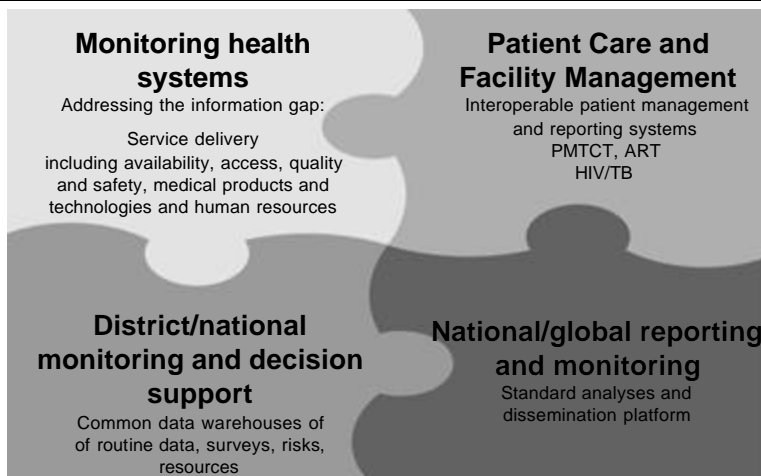
Statistics in WHO: the context

- Statistics recognised as being crucial – but WHO does not see itself as a statistical organization
- Information, Evidence and Research cluster (IER) to provide oversight across the Organization
 - Clearance function for statistics
 - Overall mortality envelope
 - Accessible database, external peer review, country consultation
 - Standards for data, meta data.
- **Making the link: health statistics and informatics**

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WHO strategic priorities



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WHO Framework for Health Information

	Data Generation	Data Compilation	Analysis and synthesis of data	Communication
WHO role	Set standards and norms Guide and support data collection in countries	Maintain data bases of country reported data, survey programs and research; Publicly accessible with metadata	Develop methods and tools for international and country use Engage global expertise	Produce comparable, credible, transparent health statistics at global, regional and country levels Comparable health statistics for countries; web, annual reports, country profiles Analytical reports
WHO country interaction	Enhance country capacity to apply standards and norms Multi-country studies for data collection	Countries report to WHO Feedback and interaction to improve quality reporting	Enhance country capacity to use methods and produce estimates	Consult with countries on products: health statistics Collaboration to enhance dissemination and use of data
Partner involvement	Collaboration in developing standards and norms Support to data collection	Development and maintenance databases	Mobilize/collaborate with partners on developing methods and tools, and support to capacity building	Harmonization between major agencies Joint publications and dissemination

Data generation

- **Setting norms and standards**

- Family of International Classifications ICD, ICF, IHR
- WHO collaborating centres, UN agencies, academic institutions.

- **Data collection in countries**

- International survey programmes, World Health Survey, Youth Tobacco, School Health
- Multi-country studies: aging and health, tobacco, risk factors for noncommunicable diseases (STEPS))
- Health services and disease surveillance: EPI, TB monitoring, HIV/AIDS surveillance, integrated disease surveillance and response,
- Monitoring the health transition; acute infectious and noncommunicable conditions.
- World Health Survey 2003: data lifestyle-related risk factors, adult health, intervention coverage, out-of-pocket health expenditures.
- Cause of death where no civil registration system

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Data compilation

- **Data-sharing**

- More transparency: distinguishing unadjusted, corrected, predicted estimates.
- Underlying data sets in the public domain, well documented.
- Applies to individual or household-level microdata and routine facility data

- **Databases**

- Interoperability
- Publicly accessible with appropriate metadata
- Databases jointly maintained with partners

- **Quality ascertainment**

- Adaptation of Data Quality Assessment Framework (DQAF); OECD quality framework and guidelines for OECD statistical activities
- Interaction at regional and HQ levels with countries

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Data analysis and synthesis

- **Production of comparative statistics**
 - Use of unadjusted, corrected and predicted statistics
 - Mobilization of the leading expertise; academic institutions, partners.
- **Quality assurance**
 - Four-step quality assurance framework for estimates
 - a high-quality accessible database;
 - an independent review group;
 - published methods of estimation;
 - internal WHO clearance
 - In practice, implementation varies substantially within WHO.
- **Country consultation**
 - Serves multiple purposes: approval from Member States, feedback on reporting by countries, strengthening country capacity to reproduce estimates

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Data dissemination and communication

- **WHO source of internationally comparable health statistics**
 - Disease programmes invest in regular annual publications, e.g. the TB annual report, or in special reports
 - Each regional office publishes a statistical summary
 - The main challenge is to ensure consistency and sustain regular updating.
- **Harmonization of statistics**
 - Joint estimation processes
 - Shares databases: immunization coverage, safe water and sanitation, child and maternal mortality; UNICEF, World Bank, UNDESA
- **WHO Global Health Observatory**

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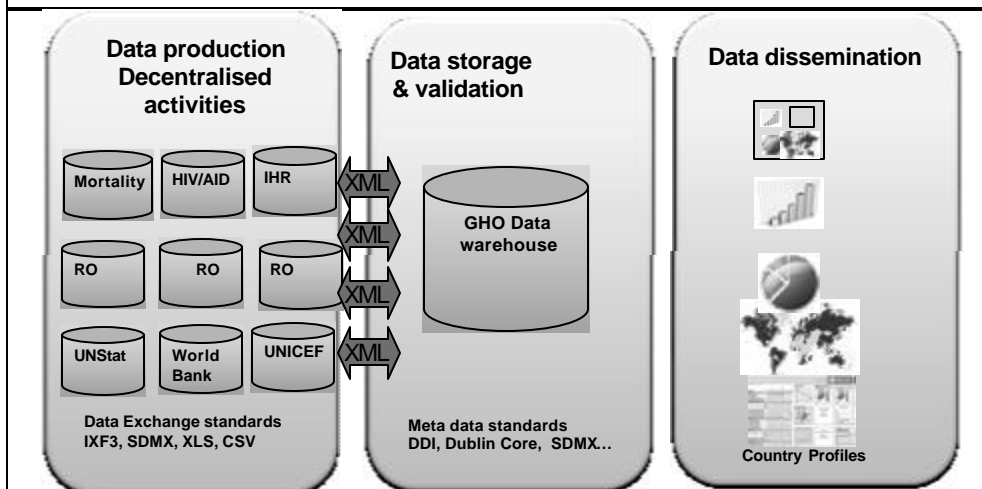
WHO's Global Health Observatory

- Support data sharing and access
 - a common database for data in WHO
 - an accessible and user friendly interface; users manipulate, download, manage data, cross-country comparisons, trends, country profiles
 - linking across disease databases, other agencies
- Encourage transparency
 - Differentiate crude, corrected, predicted data
 - Enable users to differentiate estimates from underlying empirical data
- Meet standards
 - Quality assurance and data sharing standards, DQAF, SDMX, DDI

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A federated system of databases



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Global health informatics: challenges



- Fragmented information silos
- Excessive/uncoordinated data collection and reporting demands
- Lack of use of standards – in data generation, exchange
- Data portability, use and decision making is hampered
- Issues of maintenance, scalability /sustainability
- Countries voicing frustration with lack of interoperability
- Duplication of efforts/resources

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Global health informatics: The need

- **Global leadership**
- **Global informatics standards**
- **Interoperable / interconnected tools and systems**
- **Capacity at country level**
- **Effective use of IT to improve access to and use of information and evidence for decision making**

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Integrated decision-support systems

DISEASES	RISKS	RESOURCES	INFRASTRUCTURE
			
<ul style="list-style-type: none"> - epidemiological situation - transmission patterns 	<ul style="list-style-type: none"> - water sources - swamps, wetlands - air quality - commercial farms - industrial risk 	<ul style="list-style-type: none"> - health facilities - laboratories - blood banks - partners 	<ul style="list-style-type: none"> - demographics - transportation - utilities (water electricity) - social services

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WHO and the health informatics agenda

- **Normative and convening role; others develop and implement**
- **International health standards**
 - Consensus on minimum datasets
 - Concept collaborative, indicator registries, data dictionaries, data exchange
 - Health records: individual, facility, district, country
 - Classification and terminology
- **Global public health interoperability framework**
- **Facilitating development of "openhealth" starter kit of tools**
 - Technology platform
 - Suite of interoperable tools (data collection, compilation, management, analysis & use)
- **Country guidance, capacity building**

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The Vision: Interoperable, connected systems

