Objectives of HIIP

1. To increase access to and quality of health information for the Western Pacific Region

2. To enhance data analysis and use and improve communication of reliable information
Features of HIIP – Data and analytics

- Access to national data and international estimates
  - health-related indicators
  - across countries
  - across years
  - disaggregated when possible
Features of HIIP – Data and analytics

- Smart data visualizations for comparisons across countries, exploration and analysis of trends
Features of HIIP – Data and analytics

- Smart data visualizations for comparisons across countries, exploration and analysis of trends
  - Sample subnational map

Features of HIIP – Country profiles

- Enhanced country profiles
Features of HIIP – Country profiles

- Enhanced country profiles
  - Structured
  - Interactive
  - Dynamic

Features of HIIP – Dashboards

- Regional view of health status and trend by topic
  
  Road safety dashboard

Legislation for the Five Risk Factors in the WHO Western Pacific Region

The Five Leading Risk Factors for Road Safety

<table>
<thead>
<tr>
<th>Country</th>
<th>Drink-driving</th>
<th>Child restraint</th>
<th>Seat Belt</th>
<th>Speed</th>
<th>Motorcycle helmet</th>
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<tbody>
<tr>
<td>Australia</td>
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<td>★★★★</td>
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</tbody>
</table>

Legislation on self-reported law against drink-driving and for seat belt use were as follows: ★★ = law on the books but not enforced, ★★★ = law on the books and enforced, ★★★★ = law on the books and enforced 20% of the time, ★★★★★ = law on the books and enforced 50% of the time, ★★★★★★ = law on the books and enforced 100% of the time.
Features of HIIP – Dashboards

- Regional view of health status and trend by topic

**Immunization**

**Millennium Development Goals**
Features of HIIP – Dashboards

- Regional view of health status and trend by topic

Noncommunicable diseases

Tobacco control

Health Information and Intelligence Platform (HIIP) for the Western Pacific
Features of HIIP – Dashboards
- Regional view of health status and trend by topic

Women’s health

<table>
<thead>
<tr>
<th>Country</th>
<th>Survey</th>
<th>Year</th>
<th>Intimate partner violence - Physical (victims %)</th>
<th>Intimate partner violence - Sexual (victims %)</th>
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<tr>
<td>Australia</td>
<td>Women’s health study</td>
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<td>Survey of gender and health status</td>
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<td>Vietnam</td>
<td>Survey of gender and health status</td>
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<td>0.5</td>
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</tr>
</tbody>
</table>

Features of HIIP – Reports and Publications

Reports & Publications

Vaccinating Health Care Workers Against Hepatitis B
Health-care workers are at higher risk of becoming infected with hepatitis B than others in the community. Trainee health care workers should be vaccinated prior to patient contact and existing health care workers should also be offered vaccination.

Global Status Report On Road Safety 2013
The Global status report on road safety 2013 presents information on road safety from 182 countries, accounting for almost 99% of the world’s population. This report serves as a baseline for the Decade of Action for Road Safety 2011-2020, declared by the UN General Assembly.

Road Safety in the Western Pacific Region 2013
The results presented in this document reflect the road safety situation in 2010 for 25 countries in the WHO Western Pacific Region that participated in the study and cover 98.7% of the Region’s 1.8 billion people. Data were collected and compiled by WHO following the completion and submission of standardized questionnaires by multidisciplinary road safety stakeholders in each country.
HIIP related processes, tools and plans

- Rationalization of indicators and metadata development for regional & national monitoring
- Development of web-based data entry form for data collection
- Integration of datasets into HIIP database
- Development of online data visualization tools and dissemination of data and information products through the web
- HIIP governance and project management plans

Rationalization of indicators and metadata development for regional & national monitoring

- Minimum information package needed to monitor and assess health systems functioning
Rationalization of indicators and metadata development for regional & national monitoring

Metadata provides context of the data

- Definition
- Calculation and estimation procedure
- Preferred data sources
- Levels of disaggregation
- Points for caution

### Metadata

**Number of Physicians**

**Definition**
Number of medical doctors (physicians), including generalist and specialist medical practitioners.

**Numerator**
NA

**Denominator**
NA

**Preferred data sources**
- Administrative reporting systems
- Prognostic surveys
- Population censuses

**Method of estimation**

WHO compiles data on health workforce from four major sources: population censuses, labor force and employment surveys, health facility assessments and routine administrative information systems (including health care facilities, staffing, and para and non-professional training, registration and financing). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices. The method of estimation is based on number of physicians (including generalist and specialist medical practitioners) and is dependent on the nature of the original data source. The number of physicians is counted as the number of people reporting "physician" at their current occupation (as reported according to the tasks and duties of their job). A similar method used for counting physicians from labor force survey data, with the additional application of a sampling weight to calibrate for national representation.

Development of web-based data entry form for data collection

- Web-based for easy access and updating
- Customizable with data aggregation capability
- With embedded data validation checks to minimize data errors
Integration of datasets into HIIP database

- Data
  - International databases - Global Health Observatory (GHO), Global Health Expenditure Database (GHED)
  - Regional database - Country Health Information Profiles (CHIPS), WPR technical units

Database - similar to GHO structure

Data import form used to facilitate uploading of WPRO collected data
- Development of online data visualization tools and dissemination of data and information products through the web

  - Software
    - ActiveAnalysis and SQL Reporting Services for web user online generation of tables and charts
    - Aspmaps for online web user-defined mapping
    - Tableau software for creating dashboards
    - Geoserver for access to WPRO maps
    - Dotnetnuke used for managing content in HIIP
HIIP governance and project management plans

HIIP Advisory Board

HIIP Team

HIIP ongoing enhancements/development

• Indicators and metadata page
HIIP ongoing enhancements/development

- HIIP + for database management

HIIP ongoing enhancements/development

- Dashboard development

Health systems strengthening review (draft)
HIIP ongoing enhancements/development

- Dashboard development

Assessing national capacity for prevention and control of NCDs (draft)

Malaria (draft)

MDG 4 enhancement (draft)
HIIP and national health information systems

- Harmonization and alignment of indicators
- Data and indicator definitions and metadata management
- ICT-enhanced solution for HIS for analysis and use

National M&E framework
National health data dictionaries
Data warehouse, National health dashboards

WHO IMR data standards shared with Member States (China, Fiji, Laos, Philippines, Tonga, Vietnam)

DHIS2 adapted for routine data collection by Member States (Philippines, Solomons, Vanuatu, Vietnam)

Shared resources for dashboard development (Fiji, Philippines)
The Philippine Example

Republic of the Philippines
Department of Health
Kalusungan Pangkalahatant
Version 1.0

Kalusungan Pangkalahatant (KP) Dashboard

The Kalusungan Pangkalahatant or Universal Health Care (KP/UHC) is a key focus of the GOPs medium-term health sector reform program. KP/UHC is defined as: "a focused approach to health reform implementation ensuring that all Filipinos especially the poor receive the benefits of health reform". KP/UHC has three strategic thrusts: (i) Financial Risk Protection through Expansion in NHIP enrollment and benefit delivery; (ii) Improved Access to Quality Hospitals and Health Care Facilities; and (iii) Attainment of the health-related MDGs, in addition to being prepared for emerging disease trends and prevention and the control of non-communicable diseases (NCDs).

The ultimate impact of KP will be measured through impact on health outcomes, financial protection, and patient responsiveness. KP will follow a monitoring and evaluation framework that is consistent with Monitoring and Evaluation for Equity and Effectiveness framework (ME3) which is a general framework for evaluation health systems performance.

A key element of KP monitoring and evaluation is monitoring of intermediate outcomes of KP implementation in order to track phased implementation of KP in a logical way. This will be monitored through a KP Dashboard that is easy to read and interpret.

The KP Dashboard Monitoring system shall provide information to the Secretary of Health, Philhealth senior policy makers and other key stakeholders on key programs implementation and give signals when specific implementation steps are off track. It shall also monitor KP

The Philippine Example

HFEP Facilities with Infrastructure Upgrading

Select year to filter all charts by year. Select month to filter regional chart by month. Select from project type dropdown to filter maps and table. Hover chart areas to view related information. Charts with "null" means there are incomplete data.

National Level

Regional Level

Type of facility: Barangay Health Station

December, 2011

S1.4 Health Information and Intelligence Platform (HIIP) for the Western Pacific - page 17
HIIP future actions

- Adapt available GHO tools (Athena, InstantAtlas, FusionChart) to HIIP
- Establish system for efficient regular updating of database, database performance
- Increase collaboration with Technical Programmes for better use of available data
HIIP future actions

- Improve collection, management and use of country data
  - Map indicators with available country data sources and international estimates
  - Streamline indicator collection from countries in the Regional office to maximize use of existing data collection systems
  - Increase coordination with WHO GHO to avoid duplication of work

Envisioned HIIP implementation
Please visit HIIP at

http://hiip.wpro.who.int

Thank you for your attention.