



IMPLEMENTATION OF HEALTH MANAGEMENT INFORMATION SYSTEM IN INDONESIA

Soewarta Kosen

National Institute of Health Research & Development,
Ministry of Health Republic of Indonesia



BACKGROUND

- Long history of Indonesian HMIS (1980s)
- Roles of International Agencies (USAID, World Bank, ADB) in assisting the development
- Laws No. 22/1999 and No. 32/2004 on Local Government: decentralization of health sector, including HMIS to district/city
- Ministerial decree on Obligatory Functions & Minimum Service Standard to ensure standardized health services
- Other indicators to be monitored by the system: Healthy Indonesia 2010, MDGs, WSC, Poverty Reduction

Problems of the previous HMIS



- “data-driven” instead of “action-driven”
- Irrelevance of some information gathered
- Fragmented and poor quality of data
- Duplication and waste among parallel health information systems
- Lack of timely reporting and feedback
- Poor use of collected data & information
- Breakdown of the system after decentralization



Morbidity & Mortality Statistics

- Morbidity statistics are routinely collected at health facilities (hospital, health center)
- The Central Ministry of Health prepare the national annual morbidity statistics, based on hospital admissions and hospital out-patient visits as well as from community health centers
- Hospital statistics coverage: about 70 %
- Since 1995, Information and coding are based on ICD-10 (using 3-character categories)
- Coding is usually assigned locally, by the physician or coder in medical record division of hospital/health center
- ICD-10 is also used in medical surveillance, community based survey and health insurance



Morbidity & Mortality Statistics

- Many physicians in health facilities do not follow the ICD-10 Rules in assigning multiple causes of death. Most of them is familiar only with the Direct Cause of Death, not the Underlying Cause of Death
- Lack of simplified guidance/manual
- Shortage of ICD Experts/Coders and trained personnel
- No formal Indonesian translation of ICD-10 (English version is widely used)
- At present ICD-10 Second Edition (2006 Updates) is being used

among institutions related to vital registration



Efforts to improve

- The National Institute of Health Research & Development and Center for Health Data & Information, MOH are responsible for the ICD application in the country; as well as for incorporating and disseminate the updates
- Pilot of Vital Registration System with Medical Certification of Cause of Death based on ICD in 6 provinces is being implemented by the NIHRD & Ministry of Home Affairs (in collaboration with Queensland University, Brisbane, Australia, WHO Indonesia & AUSAID); covering 2.5 million population



Efforts to improve

- Continuous training of physicians and medical coders at hospitals on ICD-10
- Inclusion of ICD-10 in medical curriculum
- Development of Government Regulations based on Population Administration Law (Law No. 23/2006) that include medical certification of cause of death based on ICD

HMIS



- HMIS should cover all data related to health from the health sector as well as from other development sectors; to support decision making process in various levels of administration.
- The HMIS should integrate routine data collection system (recording-reporting) and non-routine (community based data collection): e.g. household survey



Components of HMIS

- Hospital Information System
- Health Center Information System
- Integrated Disease Surveillance System (CDC)
- Food & Nutrition Surveillance System
- Drug Information System
- Health Man-power Information System
- Medical Equipment Information System
- Science & Technology/Research & Development Information System
- Other health related sectors: family planning, agriculture, etc.

Uses of Information Technology (IT) and Communication Technology in HMIS.



Enhance efficiency & effectiveness of HMIS by:

- providing operational support of technical functions
- support knowledge management
- improve communication and dissemination by using maps for displaying information, providing spatial analysis (GIS)
- reduce administrative costs: using internet to transmit data and information
- uses of computer to be able to provide mass storage, fast search and retrieval of structured and unstructured health data



Conclusions

The current HMIS program has addressed the previous weakness:

- it will be more adaptive to the information needs of the health sector in various levels of administration
- permits the development of integrated HIS in support of the national and local health systems
- more relevant and better quality of data and information will be produced to support planning and management functions of the health sector in various level of administration
- All of these will disseminate the “information culture”; so that there will be no reasons for health managers to make decisions without information based support.



We believe that

“ the development of rationally structured routine information systems, closely adapted to the information needs of health services at various levels, can contribute to the overall improvement of health service management”

THANK YOU

