

Patient Safety in the Era of Universal Health Care: The Case of Developing Countries

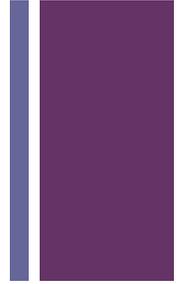
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Essential Medicine and Health Technologies

Office of the World Health Organization Representative in the Philippines



Framework

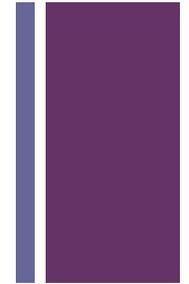


- ❖ What is Universal Health Coverage (UHC)?
- ❖ What is patient safety?
- ❖ How important is patient safety in UHC?
- ❖ What are the current barriers in UHC, in terms of patient safety, and their possible solutions?
- ❖ What are the possible scenarios in developing countries?





Universal Health Coverage



- ❖ GOAL: All people receive the health services they need without suffering financial hardship when paying for them
 - ❖ Promotion, Prevention, Treatment, Rehabilitation and Palliation
- ❖ Is firmly based on the WHO Constitution of 1948
 - ❖ Health is a fundamental human right (Alma-Ata Declaration, 1978).
 - ❖ Health equity is paramount.
- ❖ Has a direct impact on population's health
 - ❖ Productivity and sustainable development
 - ❖ Social and financial risk protection





Universal Health Coverage

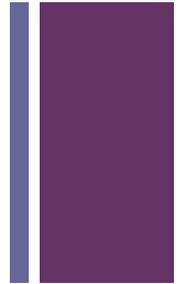
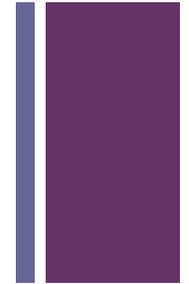


Figure 1. The essential requirements of universal health coverage



Universal Health Coverage



Three dimensions to consider when moving towards universal coverage

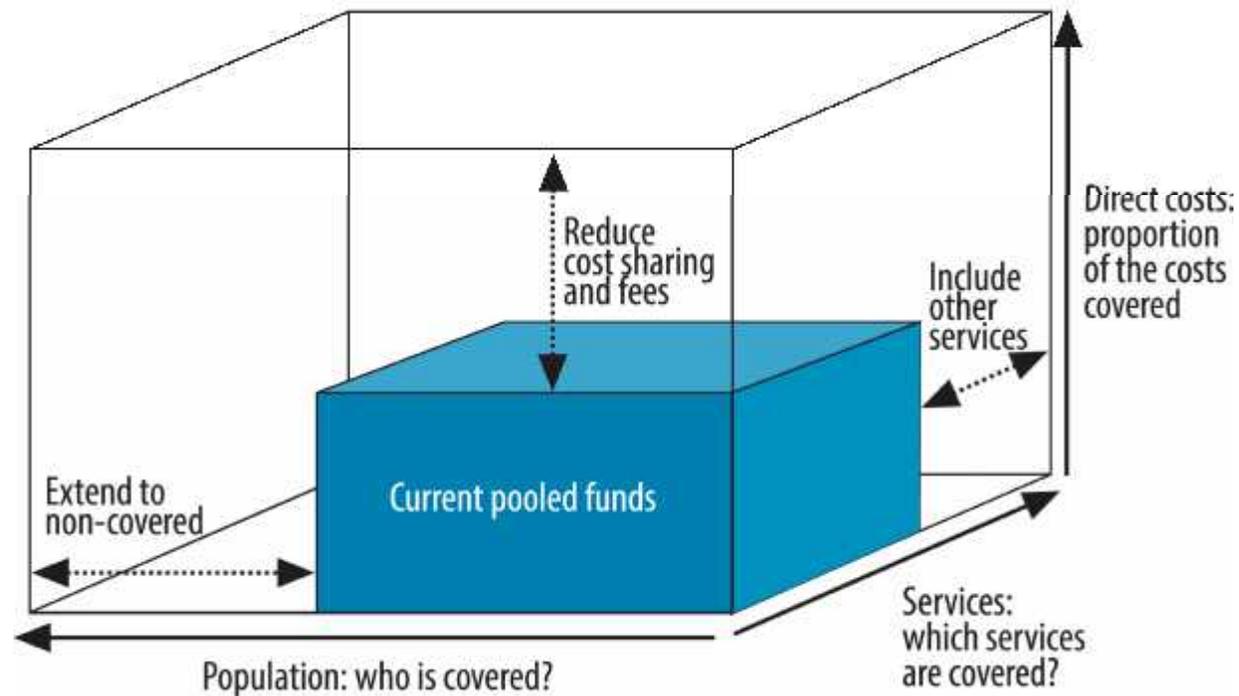
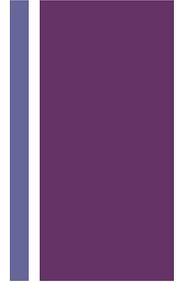


Figure 2. Progressive realization of universal health coverage



Effective UHC



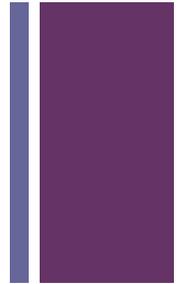
- ❖ Is the fraction of potential health gain that is actually delivered through the health system, given its capacity
- ❖ Encompasses the need, use and quality of interventions provided by the health system
 - ❖ Special attention should be given to the **quality** dimension since the use of service alone does not imply that it is being fully realized.
 - ❖ Moreover, high levels of content do not necessarily translate into optimal health outcomes and impact.



Table 1. Indicators measuring intervention quality of UHC (Ng *et al*, 2014)

Approach	Description	Study examples	Potential data sources	Strengths	Limitations
Content of care	<ul style="list-style-type: none"> - Focuses on the health care process - Involves indicators that target the resource and activity outputs of an intervention 	<ul style="list-style-type: none"> - WHO Quality assessment and assurance in primary health care [37] 	<ul style="list-style-type: none"> - Hospital databases - Patient exit interviews 	<ul style="list-style-type: none"> - Offers information from both demand- and supply-side factors - Resource and activity outputs can serve as objective indicators 	<ul style="list-style-type: none"> - Subjectivity in patient assessments of quality - High outputs or content of care may not directly translate into health gains
Biomarkers	<ul style="list-style-type: none"> - Focuses on the health benefits that can be detected biologically 	<ul style="list-style-type: none"> - Assessment of vaccine effectiveness [39] 	<ul style="list-style-type: none"> - Health surveys that include physical examinations 	<ul style="list-style-type: none"> - Provides an objective measure of actual health gains or impact 	<ul style="list-style-type: none"> - Collection of biomarker data can be costly and not always feasible in resource-constrained settings - Not applicable to all health conditions
Cohort registration	<ul style="list-style-type: none"> - Focuses on changes in individual health outcomes over the course of treatment 	<ul style="list-style-type: none"> - Assessment of highly active antiretroviral therapy (HAART) [41] 	<ul style="list-style-type: none"> - Cohort registration databases 	<ul style="list-style-type: none"> - Provides measurement of treatment effectiveness for chronic conditions over time 	<ul style="list-style-type: none"> - Limited to interventions that involve close patient monitoring and treatment by healthcare providers - Requires careful consideration of time-dependent confounding factors and lost to follow-up
Exposure matching	<ul style="list-style-type: none"> - Compares health outcomes of individuals who had intervention exposure to those who did not have exposure to an intervention 	<ul style="list-style-type: none"> - Assessment of health impact of IPTp and ITNs [43] 	<ul style="list-style-type: none"> - Household survey data 	<ul style="list-style-type: none"> - Allows for the quantification of the health gains associated with intervention exposure by calculating odds ratios or relative risks with existing data 	<ul style="list-style-type: none"> - Household surveys are rarely powered to detect health effects - Unmeasured confounding factors need to be accounted for due to the observational nature of analysis
Statistical methods	<ul style="list-style-type: none"> - Uses statistical and econometric techniques, such as instrumental variables (IVs) and matching, to estimate health outcomes while controlling for unobserved variables 	<ul style="list-style-type: none"> - Assessment of diabetes and hypertension management in Iran [45] 	<ul style="list-style-type: none"> - Health survey data 	<ul style="list-style-type: none"> - Offers a convenient solution to address potential biases associated with confounding factors 	<ul style="list-style-type: none"> - Only approximates the relationship, or correlation, between intervention exposure and a health outcome rather than the causal effect
Risk-adjusted outcomes	<ul style="list-style-type: none"> - Estimates health outcomes while accounting for the patient characteristics and risks of death that can vary systematically across sites 	<ul style="list-style-type: none"> - Birth weight-adjusted neonatal mortality [46] 	<ul style="list-style-type: none"> - Hospital databases 	<ul style="list-style-type: none"> - Provides an indicator for quality of care that reflects both procedural outputs and the health impact of received care 	<ul style="list-style-type: none"> - Limited to interventions that are delivered at health facilities - Certain risks may not be easily adjusted for if they are challenging to quantify

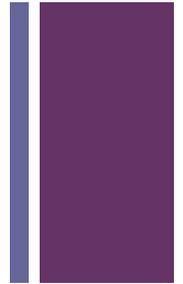
+ Putting Quality on the Global Health Agenda



- ❖ In 2005, India implemented *Janani Suraksha Yojana (JSY)*
 - ❖ A conditional cash-transfer program in which women were paid to deliver their babies in health care institutions.
 - ❖ Outcome: although the rates of deliveries soared, there had been **no detectable effect** on the country's MMR.
- ❖ A substantial increase in access to health care services does not directly result to improvement in health outcomes.
- ❖ In order to improve the population's health, there is a need to simultaneously ensure that the care provided is of **high quality**.



Quality and Patient Safety



- ❖ The Institute of Medicine determined safety as one of the features of high-quality care.
 - ❖ There has been substantial deficiency in the **patient safety** domain.
- ❖ Adverse events, such as iatrogenic harm, are sources of disability and death globally, especially among people living in low- and middle-income countries.
 - ❖ There are an estimated 23 million DALYs lost annually owing to harm from common inpatient adverse events.
- ❖ Moreover, even when care does not result in harm, it is far too often ineffective or substandard.

+ Patient Safety and the Universal Health Coverage

- ❖ Patient safety is a *fundamental pillar* in the delivery of high-quality health care.

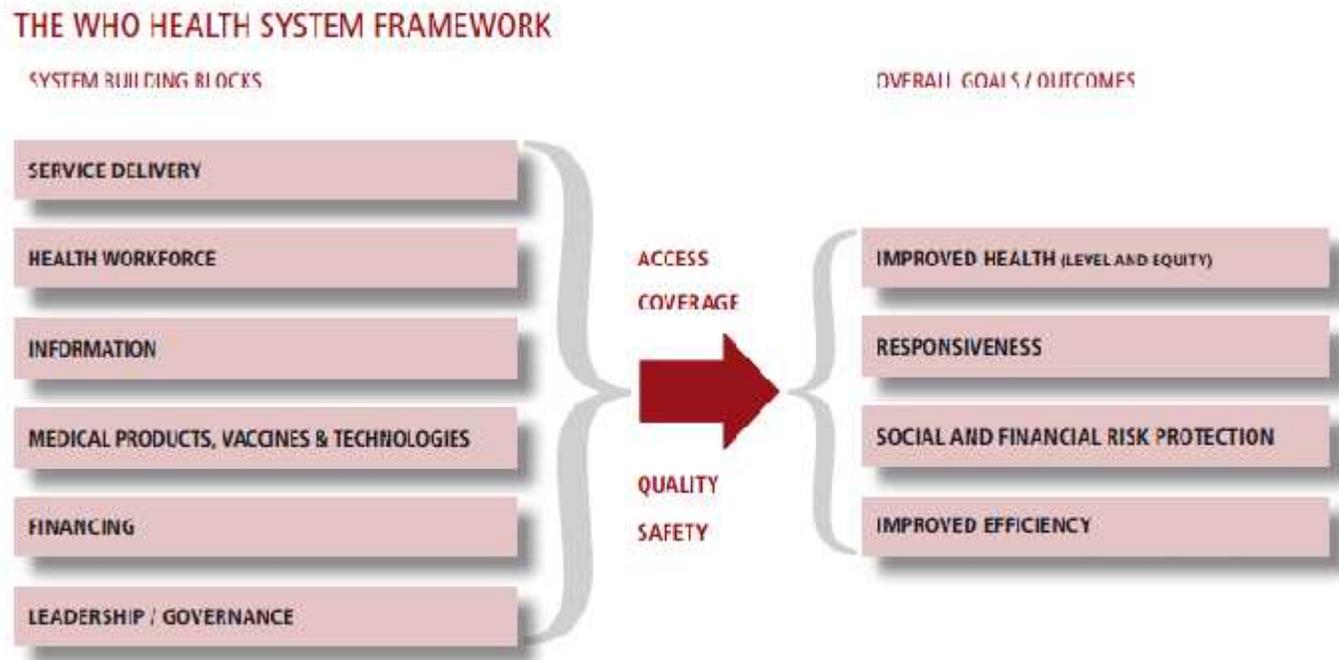


Figure 3. The WHO health system framework

+ Patient Safety and the Universal Health Coverage

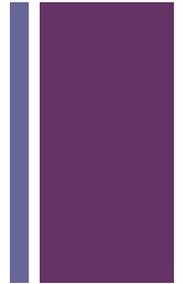


Figure 4. The UHC – patient safety & quality wheel

- ❖ Four relevant concepts on patient safety & quality: equity, accountability, effectiveness and efficiency

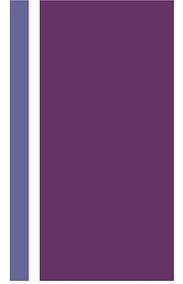


Patient Safety



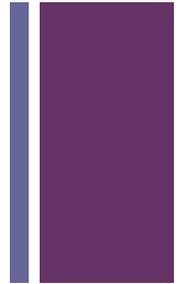
- ❖ Defined as the *absence* of preventable harm to a patient during the process of health care
 - ❖ Founded on the coordinated efforts to prevent harm, that is caused by the process of health care itself, from occurring to patients
- ❖ The avoidance, prevention and amelioration of adverse outcomes/ injuries stemming from the health care process
- ❖ However, there is ***an apparent lack of information on the convergence*** among UHC and patient safety and quality.

+ Patient Safety in Primary Care



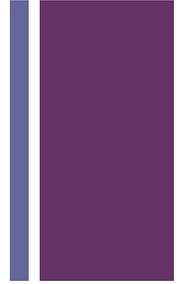
- ❖ The success of primary care also depends on the quality of system design and financing.
- ❖ However, QA and patient safety issues in primary care had received little attention until very recently.
 - ❖ There have been serious gaps in data and knowledge among many regions, particularly for developing and transitional countries.
- ❖ In 2012, a Safer Primary Care Expert Working Group was established.
 - ❖ There is an need to better understand the epidemiology of unsafe care, and develop new solutions to improving safety in primary care.

+ Patient Safety in Hospitals



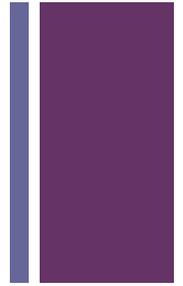
- ❖ In 2012, The average reported adverse events among 10 developing countries were ranging from 2.5 to 18.4%.
 - ❖ 83% had been judged to be preventable, while about 30% were associated with death of the patient.
 - ❖ About 34% of the adverse events were from therapeutic errors in relatively non-complex clinical situations.
- ❖ Unsafe care represents a serious and considerable danger, and should be a high priority public health problem.
 - ❖ Prevention of adverse events does not simply depend on the provision of more resources.

+ Importance of Patient Safety in UHC



- ❖ Essential medicines are considered as integral part of UHC.
 - ❖ They are an indispensable element for delivery and a requirement for high-quality care.
- ❖ They contribute significantly to spending on health.
 - ❖ Account for over $\frac{1}{4}$ of total health expenditures with some LMCI's spending up to 67% of total expenditures on pharmaceuticals
 - ❖ In LMCI's, more than $\frac{1}{2}$ and sometimes up to 90% of expenditures on medicines are out-of-pocket.
- ❖ While part of spending brings good value for money, medicines contribute to the leading sources of health system inefficiency.

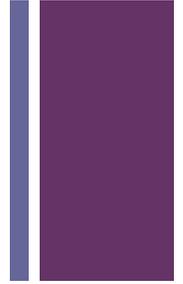
+ Importance of Patient Safety in UHC



- ❖ Outcomes of unsafe health care and service delivery:
 - ❖ Treatment failure (i.e., antimicrobial resistance)
 - ❖ Unexpected adverse drug and medical device events (e.g., physical harm, mental harm, or loss of function).
 - ❖ Increased incidence of healthcare-acquired infections
 - ❖ Surgical adverse events
 - ❖ Unsafe blood transfusion leading to blood-borne infections
- ❖ Repercussions on health and economy may result from the said clinical outcomes:
 - ❖ Augmented health expenditures among the patients on top of the high out-of-pocket spending



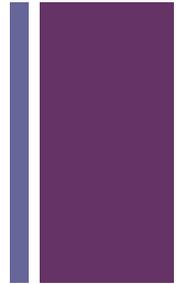
Patient Safety in UHC



- ❖ Health care systems ensuring patient safety would result to:
 - ❖ Saving lives
 - ❖ Decreasing morbidity
 - ❖ Reducing health care expenditures
- ❖ Thus, patient safety and quality is an integral aspect of a successful UHC, and is critical in resource-limited settings.
- ❖ There is now a growing recognition that patient safety and quality is a critical dimension of universal health coverage.
 - ❖ Vital in developing countries where a high proportion of care takes place in primary care settings, often with limitations in infrastructure, as well as in procedures and standards for safe practices



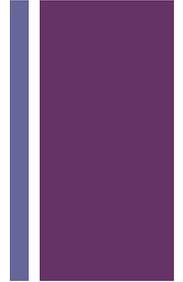
Patient Safety in UHC



- ❖ The gaps in health care quality are threatening the attainment of UHC. Despite having serious limitations, there is a growing belief that ***strengthening health care quality*** in LMICs ***can have an important impact*** on the efficiency, security and responsive of health services



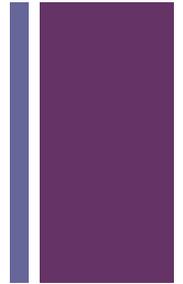
Barriers to Patient Safety



- ❖ All ASEAN countries are still facing common barriers to achieving UHC:
 - ❖ Financial constraints (i.e., low government spending on health)
 - ❖ Supply side constraints (e.g., inadequate density of health workers)
 - ❖ Ongoing epidemiological transition at different stages
- ❖ Some factors hindering the entry of safety interventions:
 - ❖ Unclear patient safety concepts among policy- or decision-makers
 - ❖ Limited studies in many resource-poor settings
 - ❖ Misconception that introducing patient safety practices is a luxury



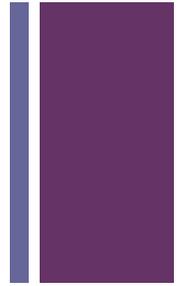
Barriers to Patient Safety



- ❖ Structural factors
 - ❖ A system that is complex and involves many interdependent organizations further complicates a breakdown of structure
- ❖ Process factors
 - ❖ Misdiagnosis, lack of follow-up of tests with appropriate treatment
- ❖ Human resources for health deficits
- ❖ Inadequate training and supervision of health workforce
- ❖ Failure to follow policies or protocols
- ❖ Methodological reasons
 - ❖ Variable completeness of medical record resulting to underreporting and potential underestimation of adverse event rate

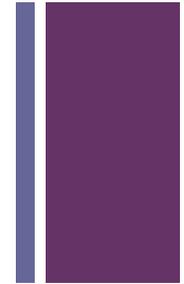


Possible Solutions



- ❖ Developing a patient safety culture
- ❖ Establishing accreditation and regulation schemes
- ❖ Enhanced training and supervision of healthcare providers
- ❖ Participation in patient safety research
- ❖ Promotion of systematic record-keeping
- ❖ Improving the availability and implementation of standard best practice guidelines and protocols
- ❖ Advocate policy instruments that contribute to the effectiveness of the concept of essential medicines

+ Possible Scenarios in Developing Countries

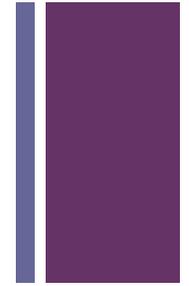


❖ **Accreditation** as a path to achieving quality UHC (2014)

Table 2. Milestones of the developmental journey of Thailand health care accreditation

Year	Initiatives
1993-1995	Pilot project of TQM in public hospitals to learn how quality improvement tools and concept can be applied to health care.
1995-1996	Development of first hospital accreditation (HA) standards, continuous quality improvement concept being incorporated.
1997-1999	Standards implementation as a research and development project, emphasized a multidisciplinary team approach. Lab and pharmacy standards are used.
1999	<i>First National Forum on Quality Improvement and Accreditation</i> is held, and continues annually as a forum for experience sharing and updating knowledge.
1999	Institutionalization of the project, The Institute of Hospital Quality Improvement and Accreditation (HA) was founded under the umbrella of the Health Systems Research Institute.
2001	The Universal Health Coverage (UHC) policy launched in Thailand, setting the expectation for a quality health care system.
2003	The HA program started a stepwise recognition program to gain acceptance and expand coverage, encouraging continuous improvement considering potential and limitation of each hospital.
2003	Health Promoting Hospital (HPH) standards and accreditation program were developed.
2006	First HA Patient Safety Goals were developed and instituted.
2006	Integration of HA & HPH standards, using National Quality Award framework.
2009	Introduction of standards addressing spirituality into quality improvement. The HA/HPH Standards were accredited by ISQua. The accreditation body was transformed to be The Healthcare Accreditation Institute (Public Organization), an autonomous government agency.
2010	Quality Learning Networks, empower accredited hospitals to give assistance to their peer hospitals.
2012	Community of Practice for high-risk services.

+ Possible Scenarios in Developing Countries



❖ **Accreditation** as a path to achieving quality UHC (2014)

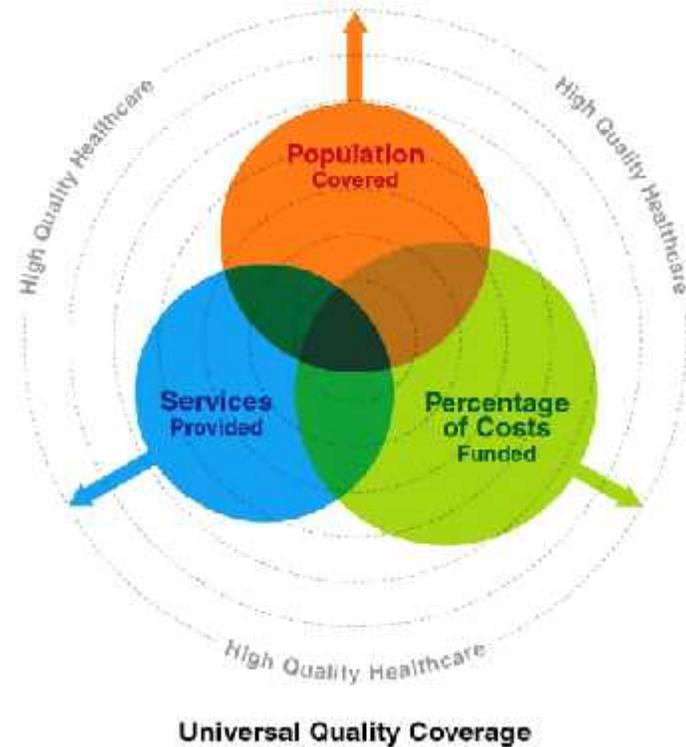
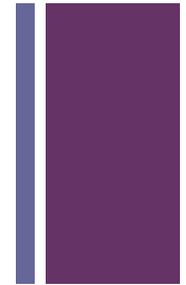


Figure 5. Four dimension of quality universal health coverage

+ Possible Scenarios in Developing Countries

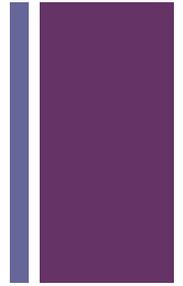


❖ *Accreditation* as a path to achieving quality UHC (2014)



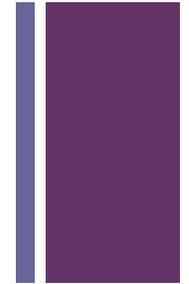
Figure 6. Reinforcing relationships between accreditation, financing and providers

+ Possible Scenarios in Developing Countries



- ❖ Developing a ***culture of patient safety*** (2011)
 - ❖ Continuous event reporting in a non-punitive environment
 - ❖ Communication and collaboration within and across working teams
 - ❖ Patient safety leadership and management
 - ❖ Adequate and competent staffing
 - ❖ Hospital size and accreditation
- ❖ Moreover, it is critically important to substantially improve the content of quality reports through:
 - ❖ Specifying requirements on risk and error management
 - ❖ Offering a framework for establishing safety culture

+ Possible Scenarios in Developing Countries



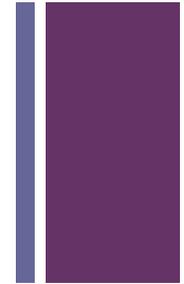
- ❖ Participation in *patient safety research*
 - ❖ Provides sound evidence for decision-making
 - ❖ Monitors impact of policies and interventions
 - ❖ Documents implementation challenges and successful implementation arrangements

Table 3. Potential research agenda pertaining to patient safety (2013)

Research agenda

- Epidemiology of adverse events, types and rates of such events in different healthcare settings in developing countries.
- Knowledge on interventions for improving patient safety practices.
- Infrastructure and organisational structure required for improving patient safety.
- The right information system required for monitoring and evaluating the success of patient safety practices.
- Development of an assessment tool for patient-safety competences in developing countries.
- Identification of patient-safety skills for healthcare professionals in developing countries that will form a framework for the development of training curricula.
- Financial burden of adverse events in developing countries.

+ Possible Scenarios in Developing Countries



❖ Participation in *patient safety research*

Table 2. Emerging themes relating to patient safety research competencies (2011)

Patient safety themes

- able to communicate and work collaboratively to promote continuous quality improvement, institutionalize a culture of patient safety, and encourage the use of standardized protocols, informatics and technology to improve safety, as well as,
- able to emphasize a systems approach to safe and quality care, consider human factors and safety design to prevent patient safety incidents, as well as handle patient safety-related incidents in a timely and open manner.

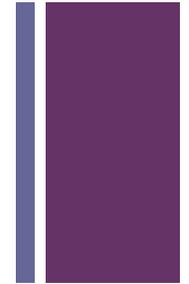
Research themes

- able to understand and apply research methods, conduct ethical research that answers important questions and contributes to the body of knowledge on patient safety
- able to conduct literature reviews, formulate sound research questions, design research protocols, engage in data collection, analysis, interpretation, and dissemination activities to communicate research findings and translate them into concrete proposals for action or change, as well as,
- proficient in computer literacy, grant writing and management of the logistics of the research process, as well as teaching and mentoring other researchers.

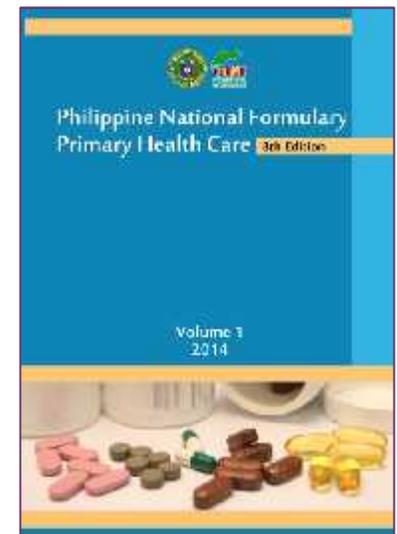
Knowledge translation themes

- able to utilize research findings as a basis for improving patient safety through the adoption, implementation and institutionalization of practices and policies that contribute to safer care, as well as,
- able to find, appraise and synthesize the evidence, to translate research findings into concrete changes, to communicate effectively to a variety of audiences, to employ change management techniques, and to take a leadership role in promoting patient safety within an organization

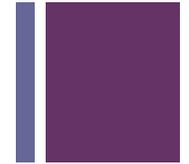
+ Possible Scenarios in Developing Countries



- ❖ Improving the availability and implementation of standard best practice guidelines and protocols; and promote the the rational use of medicines
 - ❖ Readily accessible, and updated rapid reference on medicines (e.g., comprehensive and evidence-based prescribing information and CPGs)
 - ❖ Strategies to implement the rational and responsible use of medicines to ensure patient safety (e.g., AMR alerts, general guidance on prescribing)



+ In the Philippines ...



Achieving Universal Health Care through the Aquino Health Agenda

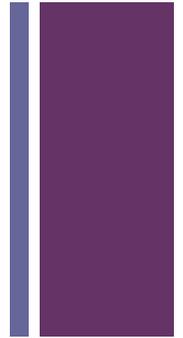
Three strategic thrusts:

1. Financial risk protection through expansion in NHIP enrollment and benefit delivery
2. Improved access to quality hospitals and health care facilities
3. Attainment of the health-related MDGs



Bawat Pilipino **MIYEMBRO**
Bawat miyembro **PROTEKTADO**
Kalusugan natin **SEGURADO**

+ Implementing the National Health Insurance Program



- 1969- creation of the predecessor organization (Medicare) of PhilHealth, which provided health insurance to the formal sector (public and private employees)
- 1995- PhilHealth was established by law, taking over from Medicare and expanding its membership to the indigent and the informal sector.
- 2014 PhilHealth coverage= 87% of the total population
 - Benefit payments= P78 billion (2014)

+PhilHealth Benefits Spectrum

Outpatient
(PCB & MDG)

Primary Care Benefit
Maternity Care
Package
Newborn Care
Package
TB-DOTS Package
Animal Bite Package
Malaria Package
Outpatient HIV-AIDS
Package

Inpatient
(Case Rates)

Inpatient cases
Day surgeries
Chemotherapy
Radiotherapy
Hemodialysis

Catastrophic
(Z benefits)

Acute Lymphocytic
Leukemia
Early Breast Cancer
Prostate Cancer
Kidney Transplantation
Coronary Artery
Bypass Graft
Total Correction of TOF
Closure of VSD
Cervical Cancer
Z Morph
Peritoneal Dialysis

Primary Care Benefit Evolution

OPB (2000)

- Sponsored program
- Gov't – owned facilities
- Consultation
- Diagnostics
- Php 300/family/yr

PCB1 (2012)

- SP/IP, OG/iG, OWP, DepEd
- Gov't – owned facilities
- Consultation
- Diagnostics (+2)
- Medications
- Php 500/family/yr

TSEKAP (2015)

- SP/IP, Senior Citizens, Kasambhay
- Gov't and privately owned facilities
- Consultation
- Diagnostics (+5)
- Medications paid to drug outlets
- Php 1800/family/yr

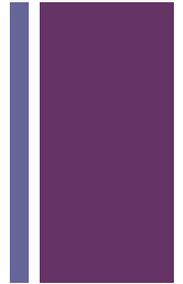
+ Monitoring Framework

- Anchored in the Health Care Provider Performance Assessment System of the Corporation to evaluate the following parameters:
 - **Quality of care**
 - Access to Tsekap services
 - Patient satisfaction
 - Financial risk protection to members
 - Fraud detection





Conclusion



- ❖ Patient safety is a fundamental principle of health care.
- ❖ Improvement of patient safety demands a system-wide effort that involves actions in various areas:
 - ❖ Performance enhancement and capacity building
 - ❖ Environmental safety and risk management
 - ❖ Rational and responsible use of medicines and devices
 - ❖ Equipment safety
 - ❖ Standardized clinical practice
 - ❖ Safe environment of care
- ❖ Developing/ strengthening regulatory and accreditation framework is essential for ensuring patient safety in UHC.



Thank you very much!
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