Patient Safety: A Critical Component of Universal Health Coverage

Victor J Dzau, MD
President, National Academy of Medicine

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NATIONAL ACADEMY OF MEDICINE

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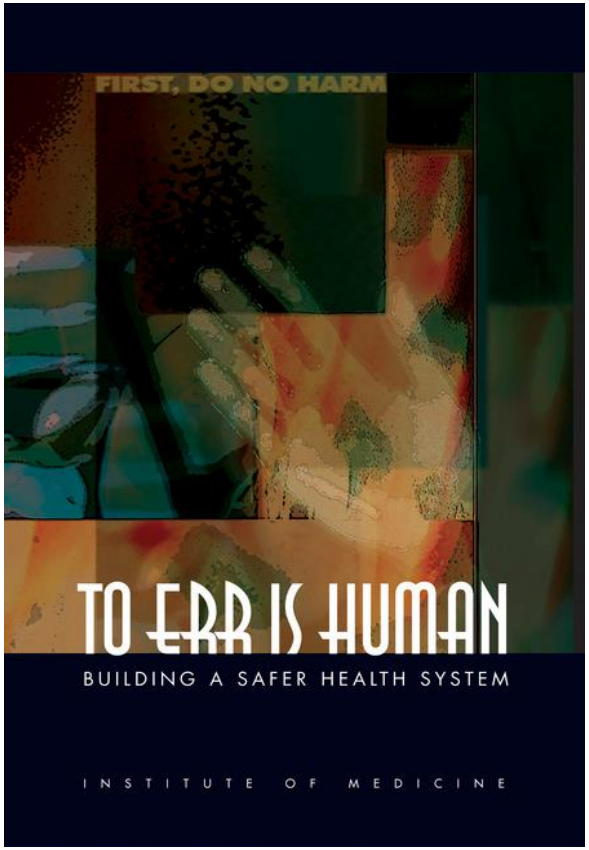
Universal Health Coverage (UHC)

SDG Target 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

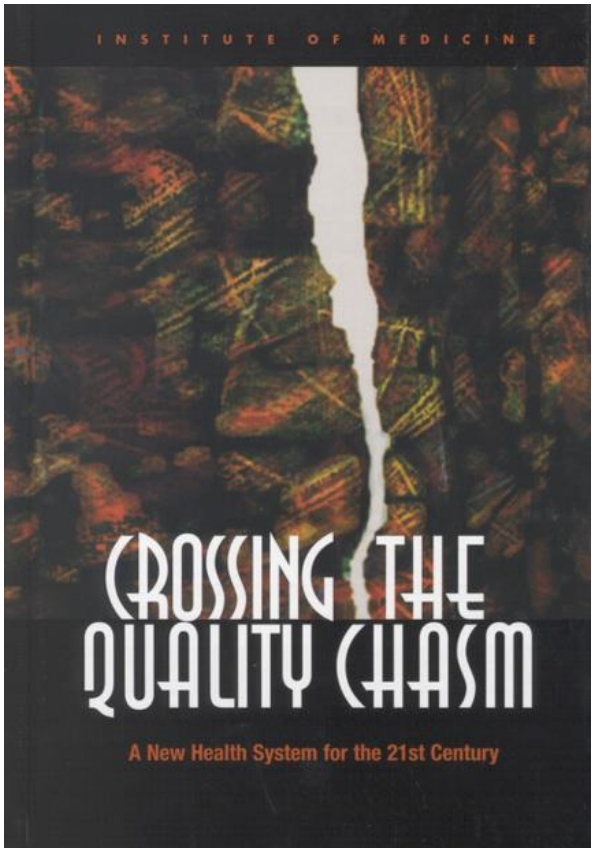
"Efforts to advance UHC are mainly focused on improving access to services and the financing structures behind them. Quality and patient safety are largely neglected, especially in low-income and middle-income countries." (Flott et al, Lancet 2017)

The IOM Quality Series

Foundational Reports



1999



2001

- **Quality** defines six aims—
  - safe,
  - effective,
  - patient-centered,
  - timely,
  - efficient and
  - equitable

Patient Safety is a Public Health Issue

- In the US, it has been estimated that 200,000 people die each year due to preventable errors in hospital settings (IOM 1999)
  - 1 in 10 patients develops an adverse event during hospitalization (AHRQ Efforts, 2014)
  - One-third of Medicare beneficiaries in skilled nursing facilities experienced an adverse event; half of these events were deemed preventable (OIG 2014)

- European data consistently show that medical errors and health-care related adverse events occur in 8% - 12% of hospitalizations

- Approximately 15% of total hospital expenditure is a direct result of adverse events (OECD 2017)

- Patient harm is a leading cause of the global disease burden

Patient Quality & Safety Milestones

1999 — *"To Err Is Human"* IOM Report

1999 — *AHRQ*

2000 — NHS: *An Organization with a Memory*

2001 — Executive Memo from President Clinton

2001 — NHS forms National Patient Safety Agency

2002 — NPSF's launches Patient Safety Awareness Week

2003 — JCAHO National Patient Safety Goals

2003 — cpsi icsp: Canadian Patient Safety Institute Established

2004 — IHI's 100K *lives* Campaign

2004 — WHO launches World Alliance for Patient Safety and Forward Programme

2005 — TeamSTEPPS®

2005 — Patient Safety and Quality Improvement Act of 2005

2006 — Peter Pronovost's Medical Safety Checklist

2008 — National Implementation of CUSP

2008 — WHO Safe Surgery Checklist

2010 — *ACA*

2011 — WHO Patient Safety Curriculum Guide

2015 — HHS sets goals and timeline for tying payment to value

2015 — WHO's Safe Childbirth Checklist

Improving Patient Safety

"*The majority of errors are caused by faulty systems, processes, and conditions that lead people to make mistakes or fail to prevent them (IOM Report 1999)"*

- Systems approach
- Culture
- Patience centeredness - Patients as true partners
- Leadership
- Policy

Source: Patient Safety 2030, 2016

Emerging Issues in Patient Safety

- Safety in **Ambulatory Care** and **Non acute care Settings**
- **Medication** error
- **Diagnostics** errors
- Patient Safety and **mHealth**

Patient Safety Beyond the Hospital

- The majority of patient safety efforts have focused on medical error in hospitals
- Only about 10% of patient-safety studies have been performed in outpatient settings (Gandhi & Lee, 2010)
- Yet, the vast majority of health care is delivered in ambulatory settings
  - 900 million visits to physicians' offices vs 35 million hospital discharges each year in the US
- Some efforts to improve ambulatory care safety, e.g.,US CMS Hospital Outpatient Quality Reporting Program
- Need to pay more attention to safety in outpatient care settings, e.g., primary care clinics, long term care, rehabilitation facilities, pharmacy/retail clinics, urgent care, digital health, etc.

Can we apply lessons from hospital patient safety to the non-hospital settings?

Key Differences between Hospital vs Ambulatory and Non Acute Care

- Nature of the patient-provider relationship
  - Patients' role as active participants is more important in ambulatory settings
- Organizational structure of hospitals vs outpatient settings
- Accountability/reporting
  - Hospitals face high level of scrutiny from organizations such as the Joint Commission

Wachter, 2006

Nature of Ambulatory Care Errors

- Medication errors and diagnostic errors are common in ambulatory care. In the US,
  - Adverse drug events lead to more than 4.5 million ambulatory care visits every year (Sarkar et al, 2011)
  - Diagnostic errors accounted for 59% of all outpatient malpractice claims (Gandhi et al, 2006)

Medication Errors

Medication errors

- Medication errors cause at least one death every day and injure approximately 1.3 million people annually in the United States of America alone.
- Medication errors cost an estimated 42 billion USD annually (WHO)

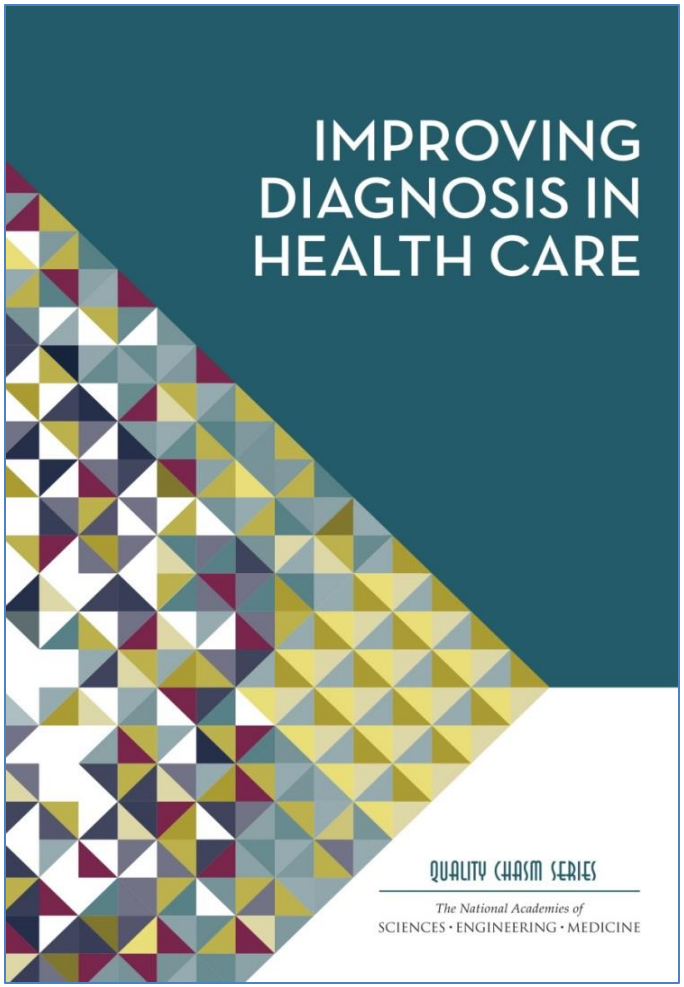
Counterfeit and Substandard Medications

- Substandard and falsified medical products may cause harm to patients and fail to treat the diseases for which they were intended.
- They affect every region of the world, but especially LMICs
  - An estimated 1 in 10 medical products in low- and middle-income countries is substandard or falsified.
- Substandard and falsified medical products contribute to antimicrobial resistance and drug-resistant infections.

http://www.who.int/mediacentre/factsheets/fs275/en/

The IOM Quality Series: Improving Diagnosis

The failure to:
(a)establish an **accurate** and **timely** explanation of the patient's health problem(s); or
(b) **communicate** that explanation to the patient



" It is likely that most of us will experience at least one diagnostic error in our lifetime, sometimes with devastating consequences."

2015

Diagnostic Error: A Significant Yet Underappreciated Quality Challenge

- **12 million or 5 % U.S. adults** seeking outpatient care each year experience a diagnostic error. Half leads to harm.
- Postmortem examination research: diagnostic errors contribute to approximately **10 percent of patient deaths**.
- Medical record reviews: diagnostic errors account for **6-17 % of hospital adverse events**.
- **Diagnostic errors are the leading type of paid medical malpractice claims**

IOM, 2015

Digital Health: Emerging Issue in Patient Safety

- Digital health as an integral part national health strategy and country priorities
- Effective application of these tools in an integrated manner can be used to improve patient safety
  - Monitoring
  - Clinical decision making
- However, digital health tools also pose risks to patients (if not properly assessed or implemented)
  - Patient safety must be accounted for in rapidly developing digital tools
  - E-health strategies must ensure digital health tools used are evidence-based

Unsafe care undermines every goal of modern healthcare systems

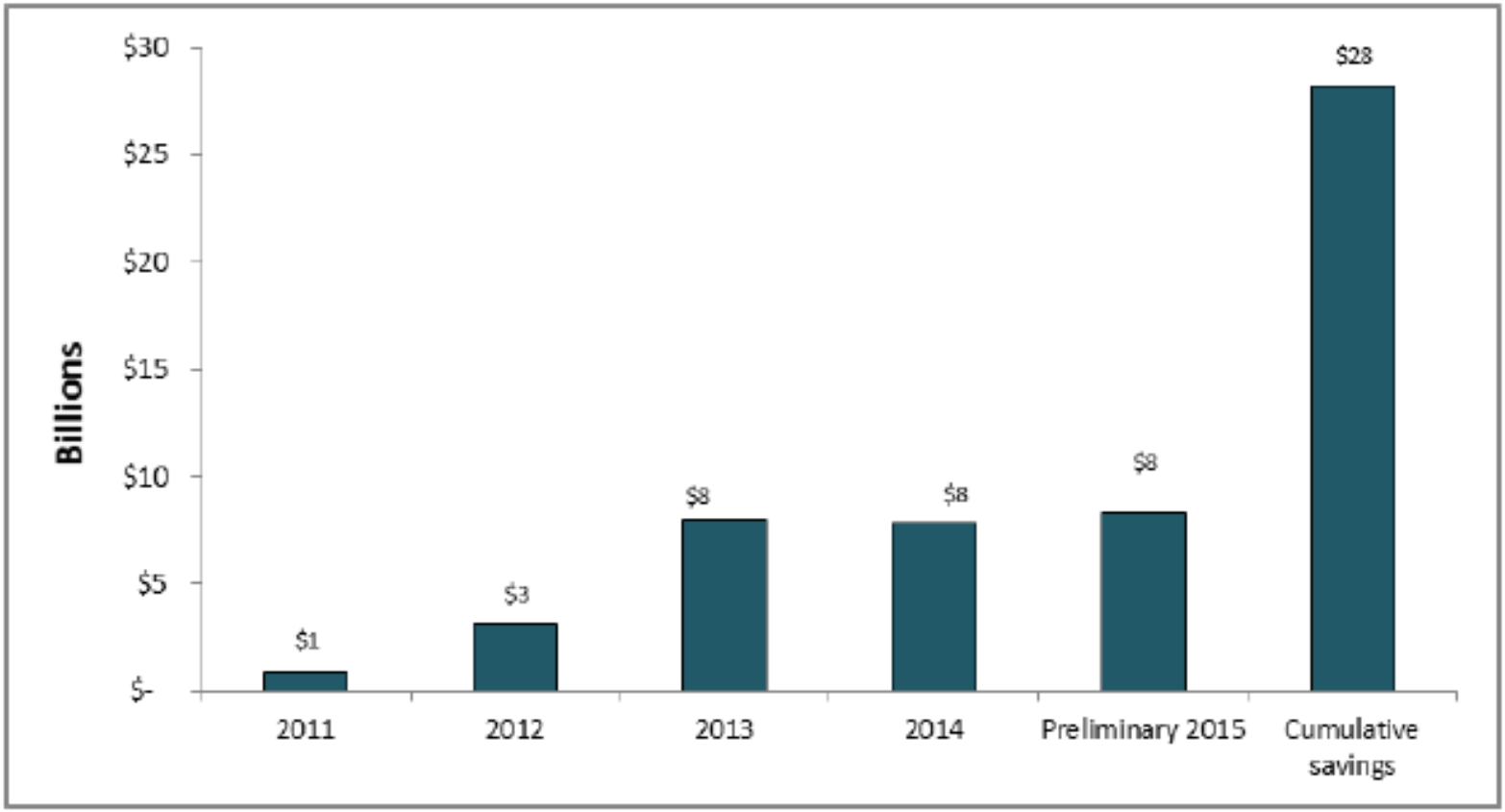
- Lives lost
- Patient dissatisfaction
- Loss of trust (especially in public healthcare systems)
- Widening disparities in health outcomes
- Increases waste and inefficiency
- Increases costs

OECD, 2017

Unsafe Care is Costly (OECD, 2017)

- Economic Burden of Medical Error is Considerable
  - Approximately 15% of total hospital expenditure is a direct result of adverse events.
  - In 2008, the economic cost of medical error in the US was estimated to be almost **USD 1 trillion.**
  - The cost of preventable adverse events is likely to be **more than £1 billion but could be up to £2.5 billion annually** to the NHS
  - Annual cost of preventable adverse events (PAEs) to Europe in 2015 estimated to be in the range of **17–38 billion Euros** (Agbabiaka et al, 2016)
- Prevention costs are lower that treatment (OECD 2017)

US National efforts to reduce harm and improve safety can deliver considerable savings

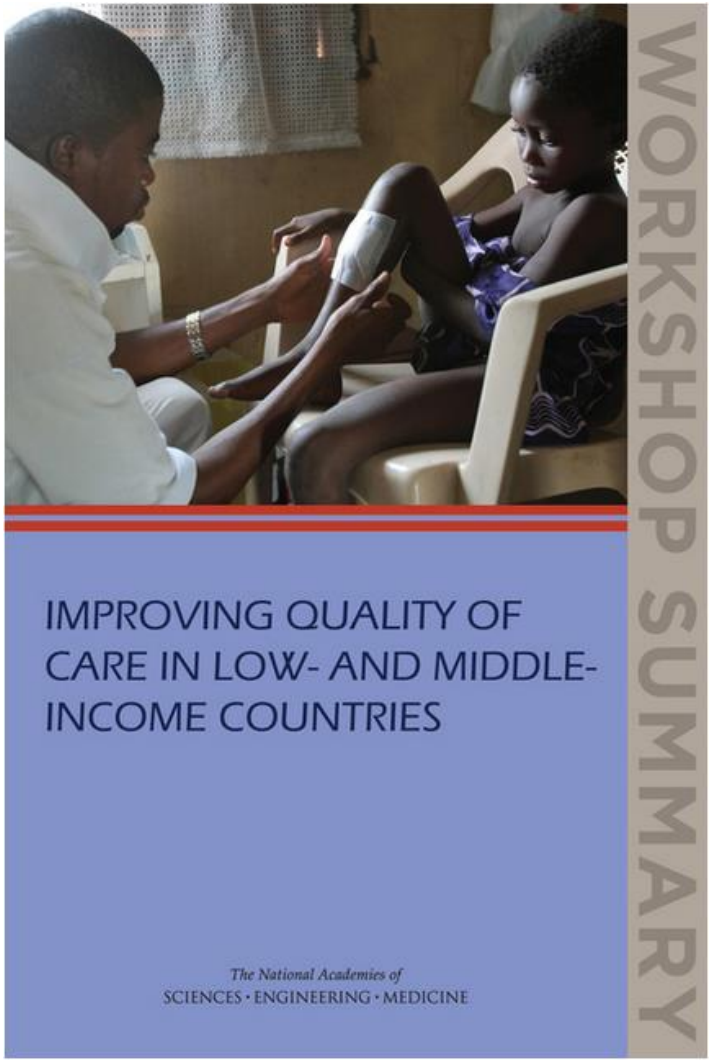


Source; AHRQ 2016

Global Patient Safety
Where are we?

Patient Safety in LMIC

Quality of Care in Low & Middle Income Countries



- Unsafe care causes 43 million injuries a year and the loss of 28 million disability-adjusted life years (DALYs), about two-thirds of them in low- and middle-income countries (Jha data to be published)
- The probability of a patient receiving the correct diagnosis is, depending on other factors, in the range of 30 to 50 percent (Jishnu Das)
- The probability of a patient receiving non-harmful treatment found a likelihood of about 45 percent (Jishnu Das)

Global preventable hospital deaths

- In the US, it has been estimated that 200,000 - 440,000 people die each year due to preventable errors in hospital settings
  - If we extrapolate US number to the global population (7.6 billion), then approx 5 -10 million people die each year
  - If we extrapolate US number to global hospitalizations (421 million hospitalizations annually worldwide (WHO) and 35.1 million in the US) then up to 4.8 million die each year

Patient Safety in Context

- Malaria: Over 1 million people die from malaria each year.
- HIV/AIDs: 1 million died of HIV-related causes in 2016
- Tuberculosis: In 2016, there were 1.7 million TB-related deaths worldwide

Global Quality & Safety

- WHO/World Bank/OECD report
- Lancet Global Health Commission on High Quality Health Systems in the SDG Era
- NASEM: Improving the Quality of Health Care Globally

Summary

- Unsafe care undermines every goal of modern healthcare systems
- Patient safety is a global public health issue
- Patient safety must be a critical component of UHC
- Extending the quality agenda to LMICs
- Patient safety has generated a lot of momentum over the last 20 years
- Need for a systems approach and local solutions to improve patient safety

BUT we have still a long way to go

For a sustainable UHC, evidence-based patient safety systems and practices have to be established in all countries as one of the critical healthcare standards.

We need a global movement: Global Action Plan for Patient Safety

Thank you

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