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Health inequalities and communicable diseases

National Institute for Communicable Diseases & University of Witwatersrand, South Africa
Respiratory and Meningeal Pathogens Research Unit, & DST/NRF: Vaccine Preventable Diseases
Eighty-four percent of 2797 International Health Hazards Between 2001 to 2013 Were Due to Infectious Diseases
Infectious Diseases Dominate as Leading Cause of Death in Africa

Leading causes of lost years of life in 2013

GLOBAL BURDEN OF DISEASE STUDY & THE LANCET, 2014
Leading Infectious Disease Causes of Death, 2010

- Respiratory: 3–4 million
- Diarrhoea: 5–6 million
- HIV/AIDS: 1 million
- TB: 1 million
- Malaria: 2 million
- Meningitis: 3–4 million
- Pertussis: 1 million
- Measles: 1 million
- Hepatitis B: 1 million
- STD: 1 million

Rye C. Phil Trans R Soc; 2015; 369: 20130426
Global Causes of Under-5 Mortality, n=5.8 million in 2015

1-59 months (54.9%)

- Neonatal death (45.1%)
  - Pneumonia (2.7%)
  - Preterm (15.9%)
  - Intrapartum-related events (10.7%)
  - Sepsis or meningitis (6.8%)
  - Other (2.5%)
  - Injury (0.6%)
  - Congenital (5.1%)
  - Tetanus (0.6%)

- Diarrhoea (8.6%)
  - Measles (1.2%)
  - Malaria (5.2%)
  - Injury (5.5%)

- Other (11.0%)

- Congenital (3.5%)
- Intrapartum-related events (0.9%)
- Preterm (1.9%)
- Pertussis (0.9%)
- Meningitis (1.9%)
- AIDS (1.4%)

The Lancet 2016 388, 3027-3035 DOI: (10.1016/S0140-6736(16)31593-8)
Causes of Under-5 Mortality by MDG Region in 2015
Infant Mortality Rates Higher in Rural Than Urban Areas in Majority of 90 Countries
Proportion of Children Under-5 with Suspected Pneumonia taken to Appropriate Healthcare Provider, by Wealth quintile and Region


a. Excludes China.
Global Immunization 1980-2015, DTP3 Coverage

Global Coverage at 86% in 2015

Immunization Vaccines and Biologicals, (IVB), World Health Organization.
194 WHO Member States. Date of slide: 16 July 2016.
Immunization Coverage with DTP 3 vaccines in Infants; 2014

Date of slide: 16 July 2015
Need to focus immunization efforts on reaching out to the poorest quintile, who are also disadvantaged to access to curative health services.

Source: UNICEF. Pneumonia and Diarrhoea. Available: www.childinfo.org/publications
Proportion of Countries, by income-group, that Have Introduced Hib conjugate Vaccine into Immunization Programs

GOOD-BYE POLIO
THANKS ROTARY
February 2017
210 cholera cases in Mozambique in wake of cyclone Dineo
Workers at the Redemption Hospital abandoned the hospital for fear of more deaths from Ebola.

Ebola outbreak 2013-2016
Guinea, Liberia, Sierra Leone
28 638 cases, 11 316 deaths

Number of people for every doctor

- Liberia: 70,000
- Sierra Leone: 45,000
- Mali: 12,000
- Guinea: 10,000
- US: 410
- UK: 360
- Spain: 270
- Germany: 260

Source: World Bank

Ebola — Underscoring the Global Disparities in Health Care Resources
Anthony S. Fauci, M.D.
NEJM 2014
DIARRHEA OUTBREAK, POST-EARTHQUAKE - NEPAL: (CENTRAL REGION), 28 Apr 2015.ProMED
Trends in Causes of Death, 1990 to Projected 2050

- **Infectious diseases**
  - 1990: 16 million
  - 2010: 15 million
  - 2050: 13 million

- **Non-infectious diseases and injuries**
  - 1990: 31 million
  - 2010: 43 million
  - 2050: 83 million

**Legend:**
- **Gray bar:** Infectious diseases
- **Black bar:** Non-infectious diseases and injuries
Infectious diseases remain dominant cause of death in Africa, including South Africa.

Under-5 childhood mortality strongly associated with inequitable access to preventative and primary level curative health care.

Wealth inequities predispose to infectious disease morbidity and mortality.

Low resource settings remain vulnerable to major communicable disease outbreaks.