

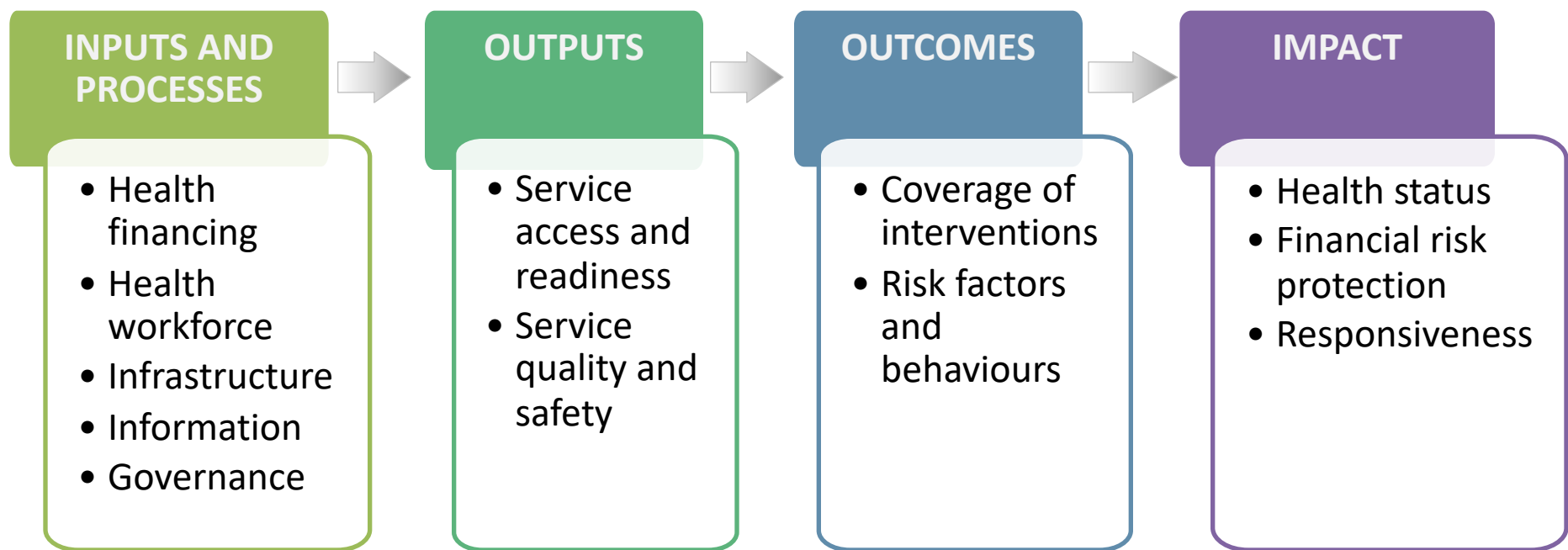
# Health inequality monitoring: with a special focus on low- and middle-income countries

## **Lecture 2: Health indicators and equity stratifiers**



**World Health  
Organization**

# Health indicators within the Monitoring, Evaluation and Review framework



Source: Adapted from *Monitoring, evaluation and review of national health strategies: a country-led platform for information and accountability*. Geneva, World Health Organization, 2011.

# Selecting a package of health indicators for monitoring

- The package should represent the entire continuum of health services and collection of health outcomes within a topic
- For expansive topics, the package should cover each component of the WHO's Monitoring, Evaluation and Review framework
- For narrowly-defined topics, inputs and processes indicators may be less relevant

# Indicators for reproductive, maternal and child health monitoring

## INPUTS AND PROCESSES

- **Health financing**
  - expenditure per target population (children, women, etc.)
- **General government**
  - expenditure on health as a percentage of general government expenditure
- **Health workforce**
  - midwives, per 10 000 population
- **Governance**
  - presence of key policies to promote maternal and child health
- **Information**
  - births registered
  - deaths registered (with cause)

## OUTPUTS

- **Service access and readiness**
  - facilities that offer and meet tracer criteria for basic and comprehensive obstetric care, per 10 000 pregnant women
  - caesarean section rate in rural populations
  - facilities that offer and meet tracer criteria for child health services, per 1000 children

## OUTCOMES

- **Coverage of interventions**
  - antenatal care
  - births attended by skilled health personnel
  - immunization coverage
  - family planning needs satisfied
  - children with diarrhoea receiving oral rehydration therapy
  - children with fever receiving antimalarials
  - insecticide-treated bednet use
  - antiretroviral prophylaxis among HIV-positive pregnant women
  - vitamin A supplementation among children
  - postnatal care
- **Risk factors and behaviours**
  - contraceptive prevalence
  - access to safe water
  - access to improved sanitation
  - low birth weight among newborns
  - early initiation of breastfeeding
  - children who are stunted or underweight

## IMPACT

- **Health status**
  - under-five mortality
  - maternal mortality ratio
  - child mortality by major cause of death, by sex and age
- **Financial risk protection**
  - out-of-pocket payments as a percentage of total health expenditure

Source: Adapted from *Monitoring, evaluation and review of national health strategies: a country-led platform for information and accountability*. Geneva, World Health Organization, 2011.

# Tracer and composite indicators

- Tracer indicator: a specified health indicator chosen to represent a broader health topic
  - For example: births attended by skilled health personnel
- Composite indicator: an index composed of several indicators within a health topic to represent that topic
  - For example: index of multiple indicators of maternal care, immunization, treatment of sick children and family planning

# Equity stratifiers

- Also called “dimensions of inequality”
- For example: **PROGRESS**
  - Place of residence (rural, urban, etc.)
  - Race or ethnicity
  - Occupation
  - Gender
  - Religion
  - Education
  - Socioeconomic status
  - Social capital or resources

# Selecting and defining equity stratifiers

- Equity stratifiers should have relevance within the population
  - For example, consider the possible influence of certain religions on health behaviours
- Relevance may vary depending on the health measure
  - For example, consider which equity stratifiers would be relevant for traffic accidents versus contraceptive use
- Criteria to define subgroups depends on data collection, data availability and population characteristics

# Direct and proxy measures to define economic status

- Direct measure: income
  - Measures all money received during a specific time (employment, sales, government transfers, gifts, financial investments, etc.) OR only money earned from employment
  - May be calculated for an individual or per household member
  - What about non-monetary income? Transitory or irregular income? Sensitive topic in poor households?
- Direct measure: consumption and expenditure
  - Measures final use of goods and services, and money payments to obtain them
  - Information may be difficult to collect
- Proxy measure: asset index
  - Measures asset ownership, housing and/or access to services
  - Data are easy to collect
  - May construct asset indices using methods such as principal component analysis



# Principal component analysis

- PCA is a data reduction method to calculate household wealth
- Key question: how can several household assets be aggregated into a single proxy variable of household wealth?
- Survey questions gather data about assets/service access → uncorrelated principal components → weights are assigned to each asset included in the index → aggregated score is calculated for each surveyed household
  - Based on this aggregate score, households may be ranked and grouped into quintiles

# Age as an equity stratifier

- Demographic data, such as age, are routinely collected by data sources
- Age is a relevant equity stratifier only if health differences are due to unfair or unjust access to health services on the basis of age (i.e. age discrimination)
  - For example, age-disaggregated analyses of contraceptive prevalence may reveal differences between adolescent and adult women

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Full text available online:

[http://apps.who.int/iris/bitstream/10665/85345/1/9789241548632\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/85345/1/9789241548632_eng.pdf)

HANDBOOK ON

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