

Countdown Coverage Indicators

**Capacity Building Workshop
Pelotas, 17-21 June 2013**

Session Outline

1. The basics
2. Countdown coverage indicators
3. Standard tables and graphs
4. A closer look: the CoIA coverage indicators
5. Things to watch out for!

Part 1

THE BASICS ON COUNTDOWN AND COVERAGE TRACKING

Coverage and Countdown

- Tracking country-specific coverage for proven RMNCH interventions is at the heart of Countdown
- The aim is for each country to achieve high, sustained and equitable coverage for interventions across the continuum of care

What is coverage?

The proportion of individuals
who need a service or intervention
who ***actually receive it***

What does a “good” coverage indicator look like?

Numerator:

All those who need a service or intervention who actually receive it.

Denominator:

All those who need a service or intervention.

Part 2

INTRODUCTION TO THE COUNTDOWN COVERAGE INDICATORS

How were Countdown coverage indicators selected?

- Formal criteria:
 - 1) Intervention has proven impact on MNC survival
 - 2) Intervention is feasible for delivery at scale in most Countdown countries
 - 3) Global coverage indicator defined, measured in core DHS & MICS questionnaires, and data available for most Countdown countries
- Periodic review using consultative process to update list of indicators

Two types of sources for estimates of indicator levels

Household survey estimates (recalculated)

- For case studies and secondary analysis, use household survey data and recalculate using standard formulas
- If not DHS/MICS, review survey quality:
 - Procedures for training, field supervision, data entry
 - Sample design and implementation
 - Data quality checks

Interagency estimates* (addressed in separate session)

- For global monitoring and profiles (not you!):
 - Vaccines
 - Vitamin A
 - Water and sanitation
 - HIV Tx and PMTCT
- The session later today will address whether you should plan to recalculate these indicators using survey data

**See Annex A of 2012 CD report for explanation of sources.*

Respect the Countdown standards!

Key reference document:

Standards to be respected :

- Label used for intervention (indicator name)
- Exact definition as listed in Annex
- Variable names (based on Pelotas group)
- Coverage indicators must be recalculated to confirm levels; can use Pelotas recalculations if they are available

Annex B
Definitions of Countdown indicators

| Intervention | Indicator definition | Numerator | Denominator |
|---|---|---|--|
| Maternal and newborn health | | | |
| Skilled attendant at birth* | Percentage of live births attended by skilled health personnel | Number of live births to women ages 15–49 years in the X years prior to the survey attended during delivery by skilled health personnel (doctor, nurse, midwife or auxiliary midwife) | Total number of live births to women ages 15–49 in the X years prior to the survey |
| Treatment of HIV* | Percentage of HIV-positive pregnant women who received antiretroviral therapy for their own health | Number of HIV-positive pregnant women attending services for prevention of mother-to-child transmission in the past 12 months who are on lifelong antiretroviral therapy | Estimated number of HIV-positive pregnant women in the past 12 months who were eligible for antiretroviral therapy |
| Prevention of mother-to-child transmission of HIV* | Percentage of HIV-positive pregnant women who received antiretroviral therapy to reduce the risk of mother-to-child transmission | Number of HIV-infected pregnant women who received antiretroviral in the last 12 months to reduce mother-to-child transmission | Estimated unexposed number of HIV-positive pregnant women* |
| Antenatal care (at least one visit) | Percentage of women attended at least once during pregnancy by skilled health personnel for reasons related to the pregnancy | Number of women attended at least once during pregnancy by skilled health personnel (doctor, nurse, midwife or auxiliary midwife) for reasons related to the pregnancy in the X years prior to the survey | Total number of women who had a live birth occurring in the same period |
| Antenatal care (four or more visits)* | Percentage of women attended at least four times during pregnancy by any provider (skilled or unskilled) for reasons related to the pregnancy | Number of women attended at least four times during pregnancy by any provider (skilled or unskilled) for reasons related to the pregnancy in the X years prior to the survey | Total number of women who had a live birth occurring in the same period |
| Demand for family planning satisfied* | Percentage of women ages 15–49, either married or in union, who have their need for family planning satisfied | Women who are married or in union and currently using any method of contraception | Women who are married and in union and who are currently using any method of contraception or who are fecund, not using any method of contraception but report wanting to space their next birth or stop childbearing altogether |
| Intermittent preventive treatment for malaria during pregnancy | Percentage of women who received intermittent preventive treatment for malaria during their last pregnancy | Number of women at risk for malaria who received two or more doses of a sulfadoxine pyrimethamine (SP) tablet, to prevent malaria during their last pregnancy that led to a live birth | Total number of women surveyed who delivered a live newborn within the last two years |
| Cesarean section rate | Percentage of live births delivered by caesarean section | Number of live births to women ages 15–49 in the X years prior to the survey delivered by caesarean section | Total number of live births to women ages 15–49 in the X years prior to the survey |
| Neonatal tetanus protection | Percentage of newborns protected against tetanus | Number of mothers with a live birth in the year prior to the survey who received two doses of tetanus toxoid vaccine within the appropriate interval prior to the infant's birth | Total number of women ages 15–49 with a live birth in the year prior to the survey |
| Postnatal care for mothers** | Percentage of mothers who received postnatal care within two days of childbirth | Number of women who received postnatal care within two days of childbirth (regardless of place of delivery) | Total number of women ages 15–49 with a last live birth in the X years prior to the survey (regardless of place of delivery) |
| Postnatal care for babies** | Percentage of babies who received postnatal care within two days of childbirth | Number of babies who received postnatal care within two days of birth (regardless of place of delivery) | Total number of live born babies in the X years prior to the survey (regardless of place of delivery) |
| Low body mass index | Percentage of women ages 15–49 with a body mass index of less than 18.5 kg/m ² | Number of women ages 15–49 with a body mass index of less than 18.5 kg/m ² | Total number of women ages 15–49 |
| Child health | | | |
| Measles immunization coverage | Percentage of infants immunized with measles-containing vaccine | Number of children ages 12–23 months who are immunized against measles | Total number of children ages 12–23 months surveyed |
| Three doses of combined diphtheria/tetanus/pertussis vaccine immunization coverage (DTP3)* | Percentage of infants who received three doses of diphtheria/tetanus/pertussis vaccine (DTP3) | Number of children ages 12–23 months receiving three doses of diphtheria/tetanus/pertussis vaccine (DTP3) | Total number of children ages 12–23 months surveyed |
| Three doses of Haemophilus influenzae type B (Hib) immunization coverage | Percentage of infants who received three doses of Haemophilus influenzae type B (Hib) vaccine | Number of children ages 12–23 months receiving three doses of Haemophilus influenzae type B (Hib) vaccine | Total number of children ages 12–23 months surveyed |
| Careseeking for pneumonia | Percentage of children ages 0–59 months with suspected pneumonia taken to an appropriate health provider | Number of children ages 0–59 months with suspected pneumonia in the two weeks prior to the survey who were taken to an appropriate health provider | Total number of children ages 0–59 months with suspected pneumonia in the two weeks prior to the survey |
| Antibiotic treatment for pneumonia* | Percentage of children ages 0–59 months with suspected pneumonia receiving antibiotics | Number of children ages 0–59 months with suspected pneumonia in the two weeks prior to the survey receiving antibiotics | Total number of children ages 0–59 months with suspected pneumonia in the two weeks prior to the survey |

Annex B of the 2012 CD Report, starts on p. 206.

Countdown Coverage Indicators

Pelotas team

has recalculated:

- Demand for FP satisfied
- Antenatal care (≥ 1 visit)
- Antenatal care (4+ visits, DHS only)
- Skilled attendant at birth
- C Section
- Early initiation of breastfeeding
- Children sleeping under ITNs
- DTP3
- Measles
- Vitamin A supplementation
- ORT
- Careseeking for pneumonia
- Water and sanitation

You

may need to recalculate:

- Antenatal care (≥ 4 visits, MICS)
- IPTp
- C Section
- Neonatal tetanus protection
- Postnatal care (mother & babies)
- Hib3 (delivered with DTP3)
- Antibiotic tx for pneumonia
- ORS
- Antimalarial Tx
- Exclusive breastfeeding
- Introduction to semi/solid foods

Questions we expect you to ask

1. What if we want to look at additional indicators?

***Fine.** Please just be sure to also analyze the standard CD indicators where relevant, and to be transparent in describing how the additional indicators are defined.*

2. Do country case study teams need to report on ALL the CD indicators?

***No.** Just those: 1) that are relevant to the focus of your case study or secondary analysis; and 2) for which adequate quality data are available.*

3. What if we have household surveys other than MICS or DHS that might contribute to the case study or secondary analysis? Can we use them?

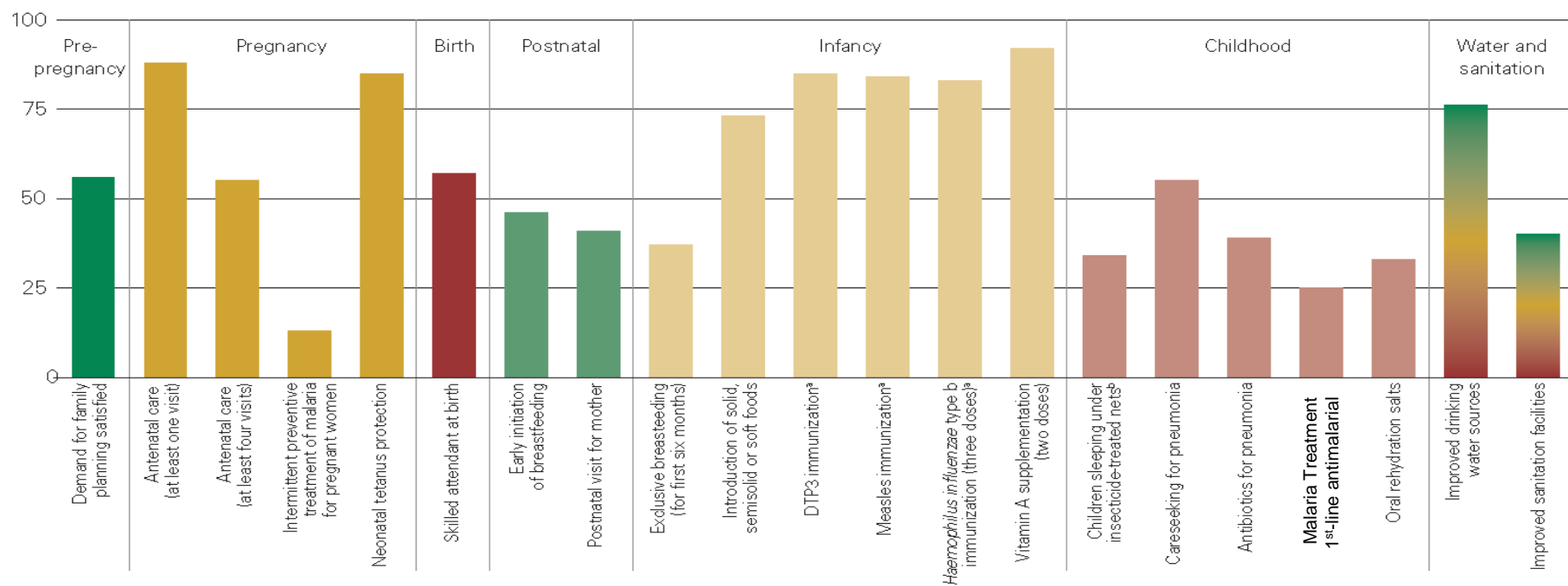
***Yes, IF** the surveys meet quality standards with respect to how the survey was designed, the survey sample, the procedures and quality control mechanisms that were in place, and produced the data needed to measure the indicators in the standard way. Any deviations from these criteria need to be described and their potential effect on the validity of the coverage estimates addressed.*

Part 3

STANDARD TABLES AND GRAPHS

Standard graph (for workshop practical sessions)

Median national coverage of selected *Countdown* interventions, most recent year since 2006 (%)



a. Data are for 2010.

b. Analysis is based on countries with 75% or more of the population at risk of *p. falciparum* transmission.

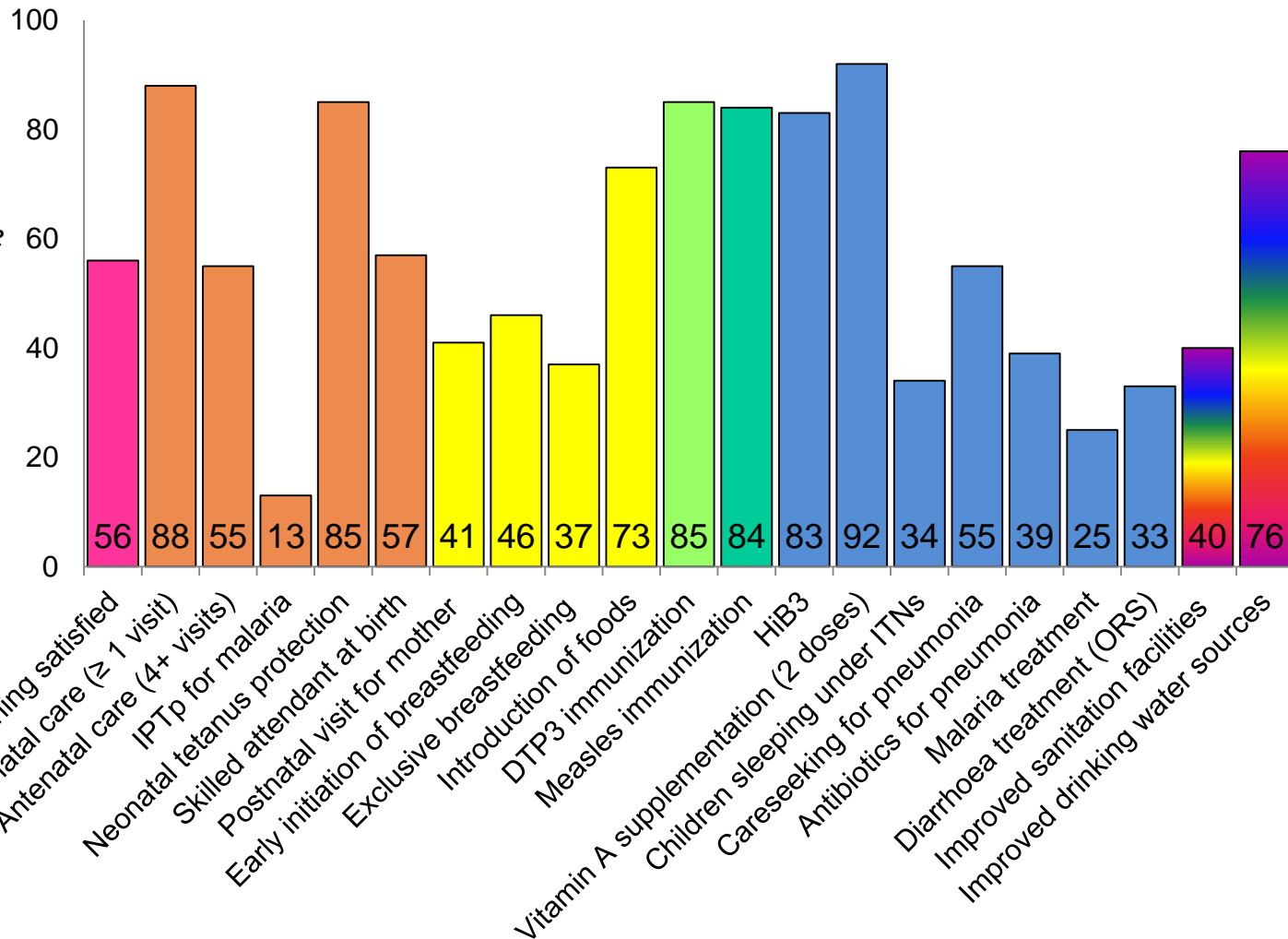
Source: Immunization rates, WHO and UNICEF; postnatal visit for mother, Saving Newborn Lives analysis of Demographic and Health Surveys; improved water and sanitation, WHO and UNICEF Joint Monitoring Programme 2012; all other indicators, UNICEF global databases, April 2012, based on Demographic and Health Surveys, Multiple Indicator Cluster Surveys and other national surveys.

Sample graph for coverage:

Add title here

Pre-pregnancy ⇨ Pregnancy ⇨ Birth ⇨ Postnatal ⇨ Neonatal ⇨ Infancy ⇨ Childhood

Add confidence intervals for single country graphs; ranges for multi-country graphs.



Standard Table

TABLE 2

National coverage of *Countdown* interventions, most recent year since 2006 (%)

| Indicator | Number of countries with data | Median coverage (%) | Range (%) |
|--|-------------------------------|---------------------|-----------|
| Pre-pregnancy | | | |
| Demand for family planning satisfied | 46 | 56 | 17–97 |
| Pregnancy | | | |
| Antenatal care (at least one visit) | 69 | 88 | 26–100 |
| Antenatal care (at least four visits) | 49 | 55 | 6–97 |
| Intermittent preventive treatment of malaria for pregnant women ^a | 39 | 13 | 0–69 |
| Neonatal tetanus protection | 66 | 85 | 60–94 |
| Birth | | | |
| Skilled attendant at birth | 67 | 57 | 10–100 |
| Postnatal | | | |
| Early initiation of breastfeeding | 55 | 46 | 18–81 |
| Postnatal visit for mother | 22 | 41 | 22–87 |
| Postnatal visit for baby ^b | 4 | 50 | 8–77 |
| Infancy | | | |
| Exclusive breastfeeding | 57 | 37 | 1–74 |
| Introduction of solid, semisolid or soft foods | 39 | 73 | 16–94 |
| Diphtheria-tetanus-pertussis (three doses) | 74 | 85 | 33–99 |
| Measles immunization | 73 | 84 | 46–99 |
| <i>Haemophilus influenzae</i> type b immunization (three doses) | 58 | 83 | 45–99 |
| Vitamin A supplementation (two doses) | 56 | 92 | 0–100 |
| Childhood | | | |
| Children sleeping under insecticide-treated nets ^a | 36 | 34 | 3–70 |
| Careseeking for pneumonia | 57 | 55 | 13–83 |
| Antibiotic treatment for pneumonia | 45 | 39 | 3–88 |
| Malaria treatment (first-line antimalarial) ^a | 31 | 25 | 0–91 |
| Oral rehydration therapy with continued feeding ^b | 53 | 45 | 7–68 |
| Oral rehydration salts | 57 | 33 | 10–77 |
| Water and sanitation | | | |
| Improved drinking water sources (total) | 70 | 76 | 29–99 |
| Improved sanitation facilities (total) | 71 | 40 | 9–100 |

a. Number of countries is based on the 50 countries with 75% or more of the population at risk of *p. falciparum* transmission.

b. Not listed in figure 9.

Source: UNICEF global databases, April 2012, based on Demographic and Health Surveys, Multiple Indicator Cluster Surveys and other national surveys.

Sample table for coverage:

Add title here

| Indicator | (No. of countries with data) | (Median) coverage (%) | (Range) Confidence Interval (%) |
|---|------------------------------|-----------------------|---------------------------------|
| Demand for family planning satisfied | | | |
| Antenatal care (at least one visit) | | | |
| Antenatal care (at least four visits) | | | |
| Intermittent preventive treatment of malaria for pregnant women | | | |
| Neonatal tetanus protection | | | |
| Skilled attendant at birth | | | |
| Early initiation of breastfeeding | | | |
| Postnatal visit for mother | | | |
| Postnatal visit for baby | | | |
| ... | | | |

Part 4

A CLOSER LOOK: THE COIA COVERAGE INDICATORS

CoIA Coverage Indicator #1: Demand for family planning satisfied

Definition

No. of women 15-49 using
 ≥ 1 contraceptive method

No. of women 15-49 reporting
need for family planning

- Limited to women married or in a “union”
- Includes modern & traditional methods
- CoIA also refers to this as “met need for contraception”; DHS tables use “met need” to refer to CPR.

Measurement

- Measured through household surveys (DHS/MICS)
- Requires special analysis combining contraceptive prevalence rate and unmet need for family planning

CoIA Coverage Indicator #2: Antenatal care, four or more visits

Definition

No. of women attended
 ≥ 4 times during pregnancy

No. of women with live birth

- Any provider
- Reason for visit must be related to pregnancy
- Does not reflect specific services provided

Measurement

- Measured through household surveys (DHS/MICS)

CoIA Coverage Indicator #3a: Antiretrovirals for HIV+ women

Definition

No. of HIV+ pregnant women
provided with ARV drugs

No. of HIV+ pregnant women

- WHO recommends disaggregation by type of therapy

Measurement

- Measured through facility reports and national program records
- Can be measured at time of ARV provision or during labor/delivery
- Denominator modeled (usually using Spectrum software)

Need to discuss how this will be handled in CD country case studies.

CoIA Coverage Indicator #3b: Antiretrovirals for HIV+ women

| Definition | Measurement |
|---|--|
| <p>No. of HIV+ pregnant women <i>who are treatment-eligible</i> <u>provided with ARV drugs</u></p> <p>No. of HIV+ pregnant women</p> | <ul style="list-style-type: none">■ Same as Coverage Indicator #3a |

Need to discuss how this will be handled in CD country case studies.

CoIA Coverage Indicator #4: Skilled attendant at birth

Definition

No. of live births attended by
skilled health personnel

No. of live births

- Limited to births reported by women 15-49 years of age
- Does not reflect quality of care or specific interventions

Measurement

- Currently measured by surveys (e.g., DHS/MICS)

CoIA Coverage Indicator #5a: Postnatal care for mothers

Definition

No. of women who received postnatal care

within two days of birth

Women with a live birth

- Includes home and facility deliveries
- Does not reflect specific services provided

Measurement

- Currently measured by surveys (e.g., DHS/MICS)

CoIA Coverage Indicator #5b: Postnatal care for babies

Definition

No. of most-recently-born babies who received postnatal care within two days of birth

No. of most-recently-born babies

- Includes home and facility deliveries
- Does not reflect specific services provided

Measurement

- Currently measured by surveys (e.g., DHS/MICS)
- UNICEF working on combined indicator for mothers and babies

CoIA Coverage Indicator #6: Exclusive breastfeeding up to 6 months

Definition

No. of infants 0-5 months who
are exclusively breastfed

No. of infants 0-5 months

- Exclusive breastfeeding means not even water!

Measurement

- Currently measured by surveys (e.g., DHS/MICS)
- Tricky!

Coverage Indicator #7: AB treatment for childhood pneumonia

Definition

No. of children 0-59 months
with suspected pneumonia
receiving antibiotics

No. of children 0-59 months
with suspected pneumonia

- Recall period = 2 weeks

Measurement

- Currently measured by surveys (e.g., DHS/MICS)
- Pneumonia prevalence varies by season!
- Recent findings indicate this indicator is not “fit for purpose”; recommending careseeking for pneumo be added to core list

Part 5

THINGS TO WATCH OUT FOR!

Common problems with coverage indicators - 1

1. The denominator is not representative

- If measured in health service settings, represent only those in contact with health services
- If diagnosis required, limited to those with a correct diagnosis

Example:

PMTCT Coverage = % of all HIV-positive pregnant women who received a complete course of ART prophylaxis

BUT

- Measured only among women tested and found HIV+
- Usually measured in antenatal care settings

Common problems with coverage indicators - 2

2. No quality control

- Intervention may be delivered, but with poor quality
- Contact with a service does not mean intervention was actually delivered

Example:

Antenatal care (4 or more visits) = % of women attended at least 4 times during pregnancy by any provider (skilled or unskilled) for reasons related to the pregnancy

BUT

- Does not specify the interventions delivered during antenatal care
- Does not mean that intervention was delivered at level of quality needed for clinical benefit

Common problems with coverage indicators - 3

3. Recognition or recall bias

- Can affect both numerator or denominator
- Affected by type of intervention and length of recall period

Example:

Antibiotic treatment for childhood pneumonia = % of children aged 0-59 months with suspected pneumonia receiving antibiotics

BUT

Correct measurement requires all of the following ⇒

Prerequisite

Child has
pneumonia

Caregiver
recognizes
pneumonia

Caregiver gives
antibiotic

Effective AB

Correct dose

Completes full
course

Caretaker
remembers

Caretaker reports
accurately

A true measure of coverage requires good measurement at each of these steps!

Things to watch out for in analysis

1. Changes in indicator definitions between surveys
2. Weighting of survey samples
3. Recall periods
4. Size of samples, especially for subnational estimates

Things to watch out for in interpreting the results

1. An “indicator” is just an indicator – what do the rest of the data say?? Triangulate where possible!
2. Are the results consistent with what the case study team learns about investments and implementation strength and policies and contextual factors?
3. Can you rule out alternative explanations for changes in coverage or impact?

Obrigada