SESSION -III
KNOWLEDGE & USE OF INDICATORS

NATIONAL RURAL HEALTH MISSION
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(2005-2012)

SESSION OBJECTIVES

After this session you should be able to:

1. Understand what does indicator means.
2. Explain various indicators related to levels of planning.
3. List various indicators used for monitoring of health services.
4. Create indicators using existing data elements from your facility reports.

INTRODUCTION

In order to manage health services well and for attainment of optimum health of beneficiaries and users, Health Program Managers at various levels need to know…

- Who gets sick?
- What illnesses are most common?
- Where do these people live?

They also need to know…

- What health services are provided?
- Who uses these services?
- What is the quality of these services?
- How much do these services cost?

Indicators help to answer these questions.

INDICATOR

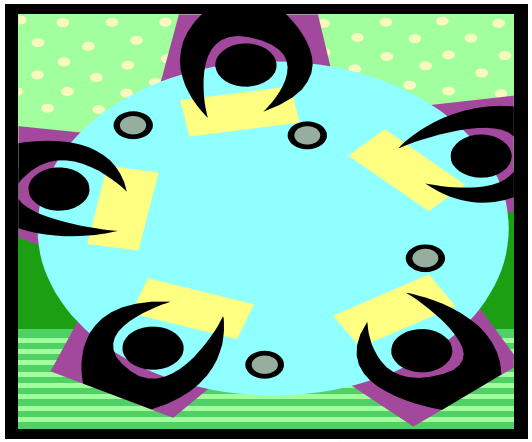
- Why do we need indicators?

INDICATORS

- We can’t use terms like “a lot” “too many” to describe the status of immunization or any service delivery.

INDICATOR

- We can't compare the raw data of service delivery of one facility with other facilities or over time, because the population served and case loads seen, and types of illness all vary. But an indicator places the raw data in *context*.



INDICATOR

- To make **data** meaningful the use of **indicators** is essential.

So what is an indicator

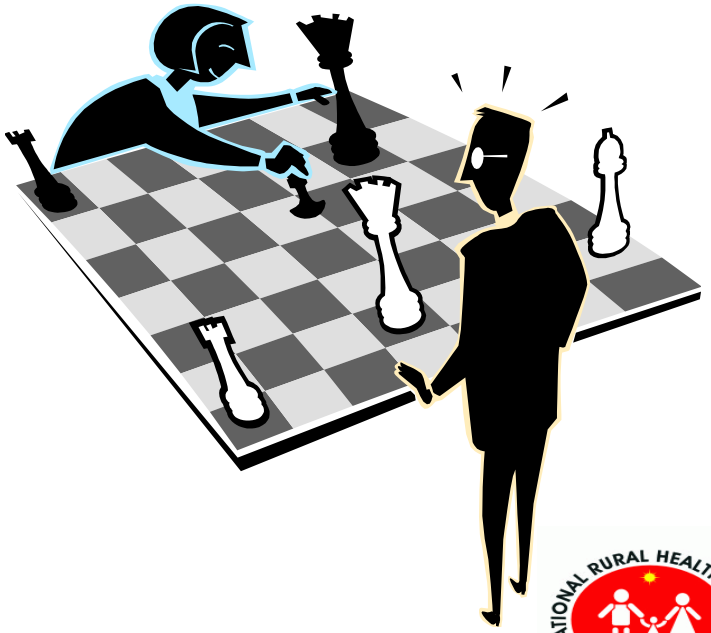
Indicators are generally defined as "variables that help to measure changes, directly or indirectly".

(WHO 1981)

"Tools used to convert raw data into information"

Indicator

$$\text{Indicator} = \frac{\text{Numerator}}{\text{Denominator}} \times 100 = \ldots\ldots\%$$



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The usefulness of indicators can be summarized as-

Serving as observable markers of progress towards defined targets;

Describing the situation and serving as a measure of changes over time;

Providing information about a broad range of conditions through a single measure

Serving as a yardstick for institutions or teams with which they can compare themselves to others doing similar work.

The ideal indicator

It is easy to calculate indictor but difficult to construct & select. Ideal indicator- **RAVES**

Reliable /Reproducible	Gives the same results if reported by different people in different places or different times.
Appropriate	Fits in with local needs and the decisions to be made
Valid	Truly measures what is of interest.
Easy and Feasible	Able to collect the numerator and denominator, and compute the indicator without much difficulty.
Sensitive and **S**pecific	Sensitive –Even small changes picked up and reflected as changes in the indicator. Specific- what is reported relates only to what is being studied

The top line – numerators (activities / interventions / events)

A count of the event being measured

How many occurrences are there:	Generally raw data (numbers)
*morbidity (health problem, disease) *mortality (death) *resources (manpower, money, materials)	

The bottom line - denominators
(population at risk)

Size of target population at risk of the event

- What group do they belong to:
  *general population (total, catchment, target)
  *gender population (male / female)
  *age group population (<1, >18, 15-44)
  *cases / events – per (live births, TB)

Rate Calculations – per population

PHC X

285 newborns were weighed after birth during last month. Of these weighed, 26 were found to have weight less than 2.5 Kg. What percentage of newborns had low birth weight?

Percentage calculation (per 100)

$$\frac{\text{Newborns weighing less than 2.5 kg}}{\text{Newborns weighed}} \times \frac{100}{1}$$

$$\frac{26}{285} \times \frac{100}{1} = \frac{2{,}600}{285} = 9.1\%$$

The Low Birth Weight Rate 9.1%

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Rate Calculations – per 1,000 population

District X

Has a population of 3750 children under 5 years.

In last month 56 children under 5 years come to clinic with diarrhea**.**

Per 1,000 population calculation

$$\frac{56}{3750} \times \frac{1{,}000}{1} = \frac{56{,}000}{3750} = 14.9 \text{ per 1000 population}$$

The Incidence Rate of Diarrhea in District X is 14.9 per 1,000 population under 5 years

Rate Calculations – per 100,000 population

In CHC-A, with a population of 15,000 some 98 people were diagnosed with Tuberculosis in 2000.

Per 100,000 population

$$\frac{98}{15{,}000} \times \frac{100{,}000}{1} = \frac{9{,}800{,}000}{15{,}000} = 653 \text{ per } 100{,}000 \text{ population}$$

The Incidence Rate of Tuberculosis in CHC-A is 653 per 100,000 population

Rate Calculation formulas

Incidence rate of diarrhea in children:

$$\frac{\text{New cases of diarrhoea}}{\text{<5 years}} \times \frac{1000}{1}$$

Incidence rate for Acute Respiratory Infection in children:

$$\frac{\text{New cases of ARI}}{\text{< 5 years}} \times \frac{1000}{1}$$

Calculations - Ratio

District-X

4 doctors serve a population of 15,000

How many people per doctor?

15,000 / 4 = 3750 people per doctor

50 nurses serve this population

How many people per nurse?

15,000 / 50 = 300 people per nurse

How many nurses per doctor?

50 / 4 = 12.5 nurses per doctor

CLASSIFICATION OF INDICATORS

- **Input indicators:** indicate resources invested in the system, e.g., number of doctors per 100,000 people.
- **Process indicators:** indicate activities of the health system, e.g., percentage of doctors trained in safe delivery skills.
- **Output indicators:** indicate achievements made specific health strategies e.g. percentage of women who received 3 ANCs.
- **Outcome indicators:** indicates achievements of a health programme or health system. e.g institutional delivery rate, breastfeeding in one hour rate etc.
- **Impact indicators:** indicates achievement health status of particular group of people e.g. Maternal Mortality Ratio, Infant Mortality Rate, Total fertility Rate etc.

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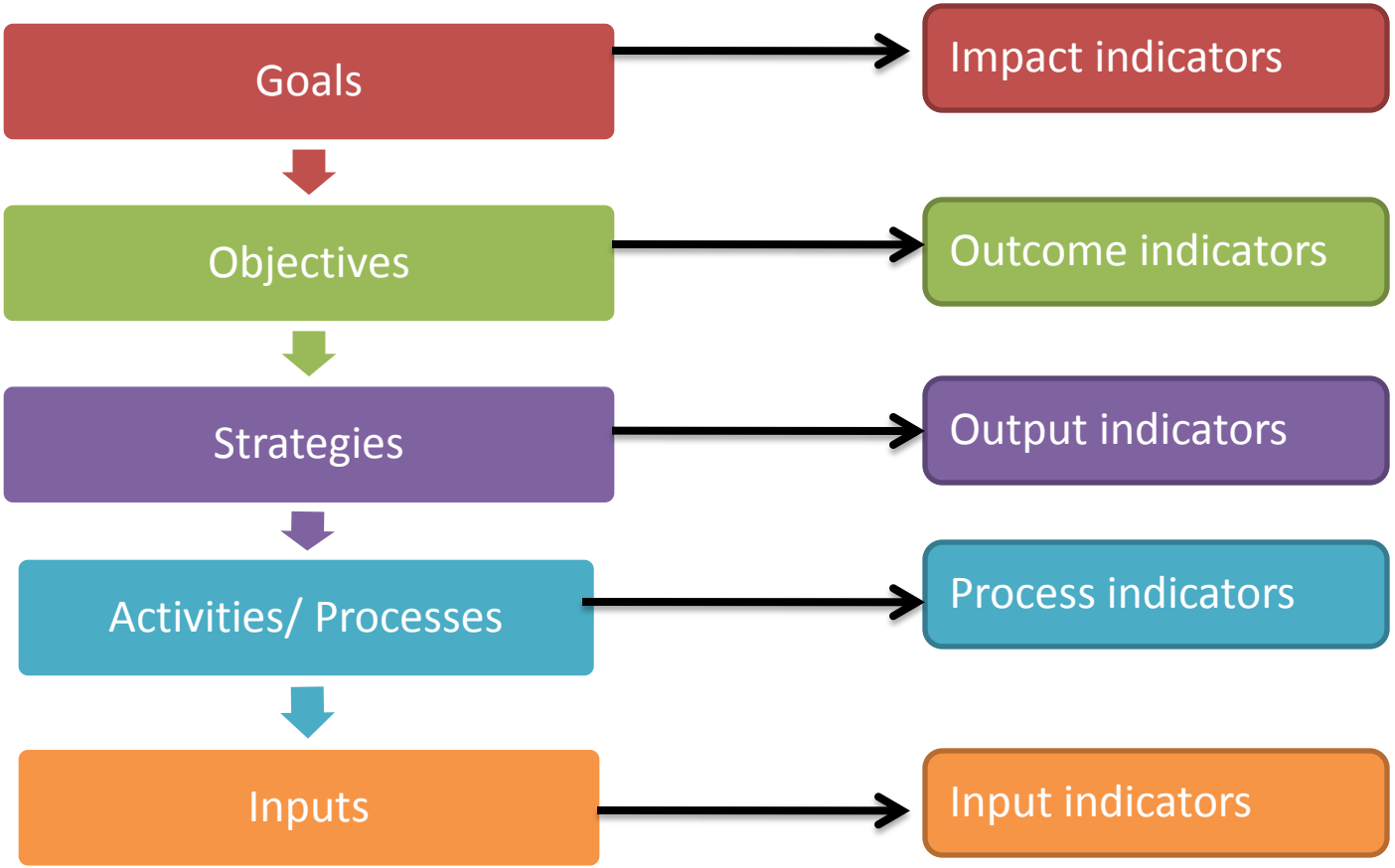
To understand the importance of indicator just have a look on “The Levels of Planning”



LIMITATIONS OF INDICATORS

While indicators are useful tools for measuring change, they also have some limitations such as:

- Indicators are used to alert Managers to potential problems, possible causes for these problems, and additional questions that can be asked. Indicators rarely indicate specific cause of the problem and possible solution.
- An isolated indicator by itself does not mean much. It needs comparison over time and across facilities and Districts to show trends in order to be useful.

INDICATOR DICTIONARY

- ANTENATAL CARE COVERAGE
- IMMUNISATION COVERAGE INDICATORS
- DELIVERY SERVICES INDICATORS
- POST NATAL CARE INDICATORS
- CHILD & NEONATAL HEALTH INDICATORS
- FAMILY PLANNING COVERAGE INDICATORS
- MORTALITY INDICATORS
- SERVICE DELIVERY INDICATORS
- LABORATORY SERVICES INDICATORS

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ANTENATAL CARE COVERAGE

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
ANC registration rate	% of pregnant women who used ANC care provided by skilled health personnel	Total ANC registered	Estimated pregnancies	100	National, State, District/ Block	Annual, Semiannual
Early registration rate	Proportion of women who were registered within first trimester (12weeks) of pregnancy	Total no. of ANC registered within first trimester (12weeks)	Total ANC registered	100	National, State, District/ Block	Quarterly, annual
TT2/Booster coverage rate	% of women who were given TT2/Booster dose during current pregnancy	Total no. pregnant women given TT2/booster	Total ANC registered	100	State, District/ Block	Annual, semiannual
ANC 3 checkups rate	% of pregnant women who used antenatal care provided by skilled health personnel at least 3 times during pregnancy	Total ANC 3 check ups	Total ANC registered	100	State, District/ Block	Annual, semiannual
ANC 100 IFA coverage rate	% of women who were given at least 100 IFA tablets	Total no. of ANC women given 100 IFA tablets	Total ANC registered	100	State, District/ Block	Annual, semiannual

ANTENATAL CARE COVERAGE

Rationale	• Antenatal care coverage indicators are indicators of access and use of health care during pregnancy. All women should have at least three antenatal visits during a pregnancy and ANC should start as early in pregnancy as possible. • % ANC registration in first trimester shows early care and level of awareness among community. • % of pregnant women receiving any ANC is a sensitive indicator of outreach. • % of pregnant women receiving TT2/Booster dose indicates completion of maternal TT immunization, which protects newborn from tetanus. IFA is mandatory to be given to each pregnant woman for protecting them against anemia. % of pregnant women given 100 IFA shows prophylactic protection of pregnant women from anemia.
Actions to consider	• Low coverage means either the strategy for providing ANC needs to be reviewed to increase access, or the community should be approached to increase awareness through ASHA, VHSC, and BCC etc. • Improve quality of care in earlier visits to ensure contact and continuity of care is maintained throughout pregnancy. Ensure that first ANC are not done through sporadic camps or Medical Mobile Units approaches

IMMUNISATION COVERAGE INDICATORS

Indicator	Definitions	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Full immunization coverage rate	% of children aged between 9 and 11 months who have been fully immunized (Child given one dose of BCG, three dosages of DPT i.e. DPT 1,2,3; three dosages of polio i.e. OPV 1,2,3 and a dosage of Measles)	Total Number of children aged between 9 and 11 months who have been fully immunized	Estimated children below 1 year	100	National, State , District and Block	Annual, semiannual
BCG Coverage rate	The percentage of live births that received BCG within one year	BCG dose under 1 year	Estimated children below 1 year	100	National, State , District and Block	Annual, semiannual
DPT3 Coverage rate	The percentage of children who received their 3 doses of DTP-3	DPT 3 dose under 1 year	Estimated children below 1 year	100	National, State , District and Block	Annual, semiannual

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IMMUNISATION COVERAGE INDICATORS

Indicator	Definitions	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
OPV3 Coverage rate	The percentage of children under 1 immunised with OPV dose 3.	OPV 3 dose under 1 year	Estimated children below 1 year	100	National, State , District and Block	Annual, semiannual
Measles coverage rate	The percentage of children who received their measles dose (normally at 9 months)	Measles dose under 1 year	Estimated children below 1 year	100	National, State , District and Block	Annual, semiannual
Actions to Consider	• Every district and sub-district management team should monitor these indicators annually or semiannually and look for trends and consistencies. • Identify areas with low coverage and ensure supplies and promotion activities. • Monitor associated indicators such as immunization drop-out rates.					

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Immunization - Drop Outs Rate

Indicator	Definitions	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
BCG - measles dropout rates	% of children who dropped out of immunisation schedule between BCG dose measles dose	Total number of infants (0-11 months), given BCG immunization- number of children given measles	Number of children given BCG	100	State and District	Annual
DPT3 - Measles dropout rate	The percentage of children who dropped out of the immunisation schedule between the third doses (normally at 14 weeks) and the measles dose (normally at 9 months)	Number of children given DPT 3 – number of children given measles	Number of children given DPT3	100	State and District	Annual

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Immunization - Drop Outs Rate

Rationale	• A high drop out rate means that either quality of immunisation services is very poor or mothers have poor access to immunisation services. • A negative drop out rate can occur if there is a stock out of the "early" vaccines and good supply of the late vaccine
Action to consider	• Ensure best possible quality of immunisation • Ensure child tracking with immunisation card • BCC to mothers on importance of finishing immunisation course • Ensure constant availability of vaccine

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Delivery Services Indicators

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Institutional delivery Rate (Public facilities)	% of deliveries conducted at public institution/facility	Deliveries at public institution/facility	Estimated deliveries	100	State and District	Annual, semiannual
Institutional delivery Rate	% of deliveries conducted at public and private institution/facility	Deliveries at public and private institution/facility	Estimated deliveries	100	State and District	Annual, semiannual
Home Delivery Rate	% of deliveries conducted at home	Number of home deliveries	Estimated deliveries	100	State and District	Annual, semiannual
Skilled Birth Attendant (SBA) Delivery Rate	Proportion of total deliveries assisted by a Skilled Birth Attendant (at home and at institutions)	Deliveries by SBA (SBA Home + all Institutional deliveries)	Total reported deliveries	100	State and District	Quarterly, annual
Rationale	• There is clear evidence that institutional deliveries by SBAs are the key to reducing maternal mortality, due to improved emergency infrastructure, access to transport and referral facilities and a number of other factors. • In absence of complete estimated population figures in states, the institutional delivery performance can also be calculated by total reported delivery figures. This can supplement the overall understanding of the institutional delivery in the State.					
Actions to consider	• Conditions at institutions should be made more acceptable (professionally, culturally, socially, financially etc) to encourage institutional deliveries					

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Complicated Deliveries

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Caesarean section rate	Proportion of C-section deliveries out of total reported institutional deliveries.	Number. of caesarian section done	Total institutional deliveries (Caesarean section + Normal delivery)	100	State and District	Quarterly, annual
Rationale	• C-section rate reflects on the readiness of the health system to carry out c-section					
Actions to consider	• Too few C-sections indicate that health system is putting the health of mother and child at risk as the system is not ready to handle C-section. • Too high C-sections would indicate unnecessary C-section are being performed.					

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POST NATAL CARE

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
PNC (within 48hrs) rate	% of women who received post natal care checkup done within 48 hrs of delivery	Number of women who received post partum check-ups within 48 hrs after deliver	Reported deliveries (Institutional + Home)	100	State, District and Block	Quarterly, annual
PNC (between 48hrs & 14 days)rate	% of women who received post natal care checkup done between 48 hrs and 14 days of delivery	Number of women who received post partum check-ups between 48 hrs and 14 days of delivery	Reported deliveries (Institutional + Home)	100	State, District and Block	Quarterly, annual

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POST NATAL CARE

Rationale	• Postnatal care (PNC) is an essential component of both maternal and neonatal care, to detect complications so that they can be treated early. The postnatal check-up should follow national protocols. • PNC coverage is an indicator of access and use of health care after delivery. • The numerator should include mothers of babies born at home and coming to health services within 48 hours. • Women should receive at least 2 postnatal care check-ups, to avoid and treat any complication. Ideally 3 PNC check-ups are required, 3rd after 42 days
Actions to consider	• BCC to mothers to undertake PNC. • Improve reporting of home deliveries.

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FAMILY PLANNING COVERAGE INDICATORS

Indicator	Definitions	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Contraceptive prevalence Rate (all methods)	Proportion of eligible couples using family planning method.	All FP Users {sterilization(male & female)+IUD Inserted +Condom/72+ OCP/13}	Number of eligible couples	100	State & District	Annually
CONTRACEPTIVE PREVALENCE RATE BY METHOD						
Sterilization coverage rate	Coverage contribution of sterilization to overall family planning method	all sterilizations(male &Female)	eligible couples	100	State & District	Annually
IUD	Coverage contribution of IUD to overall family planning method	IUD users	eligible couples	100	State & District	Annually

FAMILY PLANNING COVERAGE INDICATORS

Indicator	Definitions	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
OCP	Coverage contribution of OCP to overall family planning method -	OCP USERS(OCP Cycles /13)	eligible couples	100	State & District	Annually
Condoms	Coverage contribution of OCP to overall family planning method -	Condom users(condom pieces distributed /72)	eligible couples	100	State & District	Annually
Proportion of Limiting methods	Coverage contribution of sterilization(all) to overall family planning method	all sterilizations(male &Female)	All FP Users	100	State & District	Annually
Proportion of Spacing methods	Coverage contribution of spacing (all) to overall family planning method	IUD Users++OCP Users+ Condom Users	eligible couples	100	State & District	Annually

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CHILD AND NEONATAL HEALTH INDICATORS

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
% newborns breastfed < 1 hour	Percentage of new born babies breastfed within one hour of birth	New born breastfed within one hour of birth	Total live births (as recorded)	100	National, State and District	Quarterly, annual
Sex ratio at birth	Number of females born per 1000 males born in a give time period	Live Births females	Live Births males	1000	National, State and District	Quarterly, annual
Low birth weight rate	Percentage of live born infants with a Birth weight under 2,500 grams	Live births with a birth weight < 2500g.	Live births weighed	100	National, State and District	Quarterly, annual

CHILD AND NEONATAL HEALTH INDICATORS

Rationale	• The more the first feed is delayed, the more difficult it is to initiate breastfeeding. Breastfeeding in the first hour also gives the neonate colostrum, which is rich in immuno-stimulants. However, due to misconceptions many cultures do not give this. This is a very good index of effectiveness of BCC work and of ASHA programme where this is part of her work. This indicator can be used to strengthen these programmes. • Declining sex ratio is an important public health concerns and sex ratio at births is one of most precise indicators of this. Note that the usual sex ratio at birth where there is no active discrimination is about 950 females per 1000 males (this is due to a slightly greater loss of male fetuses). Due to a slightly greater mortality of male children in next five years, it becomes an equal or female preponderant ratio for sex ratio in the 0 to 6 age group. However with optimum care these slightly increased loss before and after birth may decline. Therefore figures in this 950 range need to be interpreted with caution. Below this figure there a gender discrimination factor becomes likely. • Efforts to increase percentage of children weighed- by studying who are getting missed out and why. BCC regarding nutrition, smoking and drinking during pregnancy. • Attention to adolescent anaemia and malnutrition. • Assistance to secure food entitlements during maternity. • Improve institutional new born care and referral arrangement where low birth weight is high
Actions to consider	• Formative research to understand the issue and design BCC programmes to promote immediate breastfeeding. • Ensure registers re modified to include immediate breastfeeding. • Include in support protocols for home based care givers like ASHAs.

Indicator	Definition	Numerator	Denominator	Multiplying factor	Periodicity of indicator
Neonatal mortality rate	Neonatal mortality rate (NNMR) measures the number of live-born babies dying within 28 completed days of life per 1,000 live births.	Deaths in first 28 days	Live births	1000	Annual, semiannual
Rationale	• Mortality during the neonatal period accounts for a large proportion of infant deaths, and is considered to be a useful indicator of maternal and newborn neonatal health and care • Neonatal mortality (particularly early mortality) is affected by quality of care for the neonate. This is a significant proportion (around 65%) of IMR. Direct causes are asphyxia, sepsis, hypothermia and neonatal tetanus. Indirect causes are low birth weight, pre maturity, birth injuries and congenital anomalies				
Data Source	• Line listing in the birth and death register and Institutional records. • Registrar of births and deaths- compulsory registration system, Household surveys				
Suggested level of use	State and district. Calculate only when you have at least 3,000 births; otherwise fluctuations will be too high. If we are plotting the monthly trend that either it is for a large area or we are taking the cumulative total of a number of months or even a year.				
Common Problems	Underreporting and misclassifications (as still births) are common, particularly for deaths. Cultural reluctance to reporting early neonatal deaths-which only good training and supervision and community dialogue can overcomes Staff training and health facility equipment for a functional newborn care Unit				
Actions to consider	Appropriate home based neonatal health care providers to be trained				

Infant Death rate(IDR)

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Infant Death rate(IDR)	Infant Death rate (IDR) measures the number of deaths of infants under one year of age per 1,000 live births	Deaths of infants less than one year old (Neonatal death plus deaths in 1-12 months)	live births	1000	National, state and district. Below district even the data element by itself provides actionable information	Annual, semiannual
Rationale	This MDG indicator is a good measure of the socio-economic, nutritional and environmental health status of a given population. Common causes of death after the neonatal period are diarrhoea, acute respiratory infection, malaria, malnutrition, vaccine preventable diseases, especially measles. A significant proportion of the IDR is related to neonatal care Infant deaths should be reported monthly and IDR calculated semi- annually. One needs to ensure that in this period of calculation there has been at least 3000 live births in that area. At a local level – block or lower- this information is actionable even without making it into an indicator.					
Data Source	Routine: Line listing of deaths; Institutional records Others: Registrar of births and deaths, Population-based surveys, especially Sample Registration Surveys					

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Infant Death rate(IDR)

Other Useful Indicators	• IMR by gender gives insight into poor care for the female child and female infanticide. • Peri-natal and neonatal death rates measure quality of care at birth • Disease specific death rates due to diarrhoea, malaria, ARI etc provide clues for immediate action. • IMR can be disaggregated by social class, residence, income etc. • Underweight rate under one year measures nutritional status. This acts as a risk factor, increasing the likelihood of death from any of the above causes.
Common Problems	IDR from routine data can be inaccurate because of unreported deaths occurring in the home, particularly amongst poor and disadvantaged communities not reached by health services. Cultural reluctance to report neonatal deaths. Tendency to underreport due to threat of reprimand from above Deaths before the first birthday are all included in this.
Actions to consider	Improved notification through line listing by health workers, Community notification of deaths- to VHSCs, PRIs, NGOs etc - a form of community monitoring to uncover unreported deaths. Ensure that truthful reporting of higher deaths than expected is not met with reprimands but with assistance.

Under 5 Mortality Rate

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Under 5 Mortality Rate	Under-five mortality rate measures the number of children who die before their fifth birthday per 1000 live births	Deaths Neonatal + Deaths infant + Deaths 1-5 years	live births	1000	National, state and district. Below district even the data element by itself provides actionable information	Annual, semiannual
Rationale	Under-five mortality rate is a general indicator of the level of child health, it measures more the socio-economic, environmental and nutrition status of children , rather than direct health care delivery.					
Data Source	Line listing of deaths at Sub Centre; Institutional records Vital registration- registrar of births and deaths; Population census; Population-based surveys, such as DHS					
Other Useful Indicators	Under 5Mortality Rate can be disaggregated by gender, social class, residence, income etc					
Actions to consider	• Improved notification through line listing by health workers, • Community notification of deaths- improve recording of unreported deaths and increases community action to prevent deaths • Improve quality of care for children through health workers at home					

Peri Natal Mortality Rate (PNMR)

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Peri Natal Mortality Rate (PNMR)	Peri-natal deaths comprise still births (gestation over 228 weeks / >1000 grams weight) plus early neonatal deaths (infants dying within 7 days).	Deaths Peri-natal (still births plus early neonatal in first week)	Live Births.	1000	National and below. Calculate and make predictive trend analysis only when we have at least 3,000 births, otherwise fluctuations will be too high.	Annual, semiannual
Still birth rate		Total no. of still births	Total births (Live birth + Still birth)			

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Peri Natal Mortality Rate (PNMR)

Rationale	• PNMR directly reflects maternal health, quality of prenatal, intra-partum and neonatal care. • Peri-natal deaths comprise up to 40% of infant deaths and their reduction is the most important way health services contribute to reducing IMR. • PNMR gives an indication of the quality of maternal and child health services. This indicator includes still births, which are as numerous as first week deaths. Any pregnancy outcome other than a live birth after the pregnancy has achieved 28 weeks would get included in this. The criteria of weight above 1000 gms may have to be ignored if weight of the still-birth/aborted fetus is not available. • All pre-natal deaths should be audited according to national guidelines to identify preventable deaths and improve neonatal care. • A **peri-natal death audit** can provide useful additional information on quality of care.
Data Source	Registers from Delivery and neonatal wards; Line listing by ANMs; Vital registration; Population census; Population-based surveys, such as DHS.
Actions to consider	• Institutions with high PNMR need additional support to identify the causes of the deaths, and will normally need training on neonatal care techniques. • By comparing PNMR with other rates, one can arrive at conclusions about which areas of child care require prioritization.

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Maternal Mortality Ratio

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of indicator
Maternal Mortality Ratio	The death of a woman while pregnant or within 42 days of delivery or termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental causes.	Deaths Maternal	Number of live births	1,00,000	National, State and District. Below District even the data element by itself provides actionable information	Annual, semiannual
Rationale	Maternal mortality Ratio reflects the quality of care during pregnancy and the puerperium. All maternal deaths should be subjected to an audit, according to national guidelines. The indicator monitors deaths related to pregnancy and childbirth. It reflects the capacity of the health systems to provide effective health care in preventing and addressing the complications occurring during pregnancy and childbirth. It is also a Millennium Development Goal Indicator for monitoring Goal 5, improving maternal health.					

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Maternal Mortality Ratio

Data Source	Line listing of maternal deaths; Labour records and registers maintained at Facilities Civil Registration System(CRS); Community feedbacks
Other Useful Indicators	A Maternal Mortality Audit should provide detailed disaggregation by: • Cause (sepsis, malaria, PPH, PIH, Obstructed labor, unsafe abortion, anaemia). • Maternal Age, under 19 years, over 35 years • Duration of pregnancy – first, second, third trimester, post delivery place of delivery- home, institution etc. Maternal mortality rate is collected by special surveys
Common Problems	Maternal deaths are relatively rare events and need large sample size. Under-reporting and classifying a maternal death is a major problem with MMR. It is difficult to collect the data for pregnant women who die at home. Even special surveys have problems getting accurate data because respondents are not keen to talk about these very tragic issues

QUALITY OF ANTENATAL CARE SERVICES

Indicator Name	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of use
ANC Moderately anaemic rate(Hb<11gm)	Percentage of pregnant women tested to be moderately anaemic (Hb level <11g)	Pregnant women having tested for anaemia ,Hb<11g	Total ANC registered	100	State, District, & Block	Quarterly, annual
ANC hypertension new case detection rate	Percentage of pregnant women detected with hypertension/ high blood pressure (BP>140/90)	Pregnant women detected BP>140/90	Total ANC registered	100	State, District, & Block	Quarterly, annual
ANC severely anaemic treated rate	Percentage of severely anaemic pregnant women treated (Hb level <7g)	Severely anaemic pregnant women treated (Hb<7g)	Total ANC registration	100	State, District, & Block	Quarterly, annual

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QUALITY OF ANTENATAL CARE SERVICES

Indicator Name	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of use
Eclampsia management rate	% of eclampsia cases managed during delivery	Number of eclampsia cases managed during delivery	Total deliveries (home + institution)	100	State, District, & Block	Quarterly, annual
Rationale	• Testing for anaemia and hypertension is an indicator of quality of ANC services and also detection of important risks associated with preventable mortality. • Hb<7g and BP>140/90 is a danger sign for pregnant women and should be managed by arranging for referral transport and informing the medical officer in-charge in advance					
Actions to consider	• Address supply side issues • Ensure quality of ANC • Awareness generation among mothers to avail complete and quality ANC services					

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JSY COVERAGE INDICATORS

Indicator Name	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of use
JSY registration rate	% of pregnant women who were registered under JSY scheme.	Total JSY registration	Total ANC registered	100	State, district/ block	Annual, semiannual
% Institutional Delivery Receiving JSY Benefit	Proportion of women who had institutional delivery received JSY benefit	Institutional Delivery women received JSY benefits	No. of pregnant women registered for JSY	100	State, district/ block	Annual, semiannual
Rationale	• JSY benefits are given to encourage women to come for institutional deliveries, thus reducing maternal mortality. • % of women registered under JSY shows: number of women entitled to benefits under JSY. This includes: only BPL & SC/ST women in HPS states					
Action to consider	• BCC to mothers by ASHA for institutional delivery and JSY benefits. • This is a good indicator for performance monitoring of ASHA programme, as ASHA is suppose to mobilise pregnant women for institutional delivery and JSY.					

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Service Delivery Indicators

Indicator Name	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of use
IPD as percentage of OPD	Proportion of IPD out of total OPD.	Total IPD	Total OPD	100	State and District	Quarterly, annual
Operation major (General and spinal anaesthesia) as %of OPD	Percentage of major operations conducted against total OPD attendance	Operation major (General and spinal anaesthesia)	Total OPD	100	State, District and Block	Annual, semiannual

Service Delivery Indicators

Indicator Name	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of use
Operation minor (No or local anaesthesia)as % of OPD	Percentage of minor operations conducted against total OPD attendance	Operation minor (No or local anaesthesia)	Total OPD	100	State, District and Block	Annual, semiannual
Dental utilization ratio	Dental Procedures as % of OPD	Dental Procedures	Total OPD	100	State, District and Block	Annual, semiannual
Bed occupancy rate	Percentage of bed occupancy against total beds available in a facility in a given time period	Sum of inpatient head count at midnight	Total Bed days available (total number of days for which indicator is calculated x total number of beds)	100	Facility	Annual, semiannual

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Laboratory Services Indicators

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of use
HIV positive as % of HIV tested	Proportion of HIV +ve cases(all)out of total tested for HIV.	Total number of patients who were found HIV+ve after test	Total HIV test conducted	100	State, District and Block	Quarterly, annual
Proportion of antenatal women tested for HIV	Proportion of pregnant women who were tested for HIV .	ANC tested for HIV	Total ANC Registration	100	State, District and Block	Quarterly, annual
HIV prevalence among antenatal (ANC) tested	Proportion of ANC who were found to be HIV +ve after test	Antenatal women tested and found HIV positive	Antenatal women tested for HIV	100	State, District and Block	Quarterly, annual
HIV prevalence among non ANC tested (excluding ANC women)	Proportion of non-ANC who were found to be HIV +ve after test	HIV test positive (excluding antenatal)	HIV tested (excluding antenatal)	100	State, District and Block	Quarterly, annual
HIV prevalence among males tested	Proportion of HIV+ cases among total number of males tested	HIV test positive (males)	No. of males tested for HIV	100	State, District and Block	Quarterly, annual

Laboratory Services Indicators- Malaria

Indicator	Definition	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of use
Annual parasite incidence	Confirmed cases during 1 year/population under surveillance) x 1000.	Total no. of blood smears +ve for Malarial Parasite in a year	Total population	1000	State, District and Block	Annual
Annual Blood Examination rate (ABER)	Number of slides examined	No. of blood smears examined for Malarial Parasite in a year	Total population	100	State, District and Block	Annual
Use	ABER- This parameter reflects the efficiency and adequacy of case detection mechanism					

Disease Specific Incidence Rate

Indicator	Definitions	Numerator	Denominator	Multiplying factor	Suggested level of use	Periodicity of reporting
Diarrhoea incidence under 5 years (per 1 000)	The number of children under 5 years with diarrhoea per 1 000 population under 5 years per year.	The number of children with diarrhea under 5years	Total children under 5 years	1000	State & District	Annual
USE	• It is assumed that health personnel, through interviewing the person accompanying the child, confirm that the problem most likely is diarrhoea and not just a temporary running stomach due to e.g. intake of certain drinks/foodstuffs. • Diarrhoeal disease is one of the leading causes of infant/ child mortality, and is closely related to both socio-economic situation and environmental health issues like access to clean water.					
Note	Similar disease specific incidence rates can be calculated for disease reported in HMIS.					

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