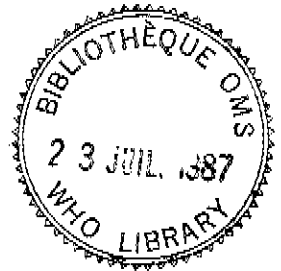


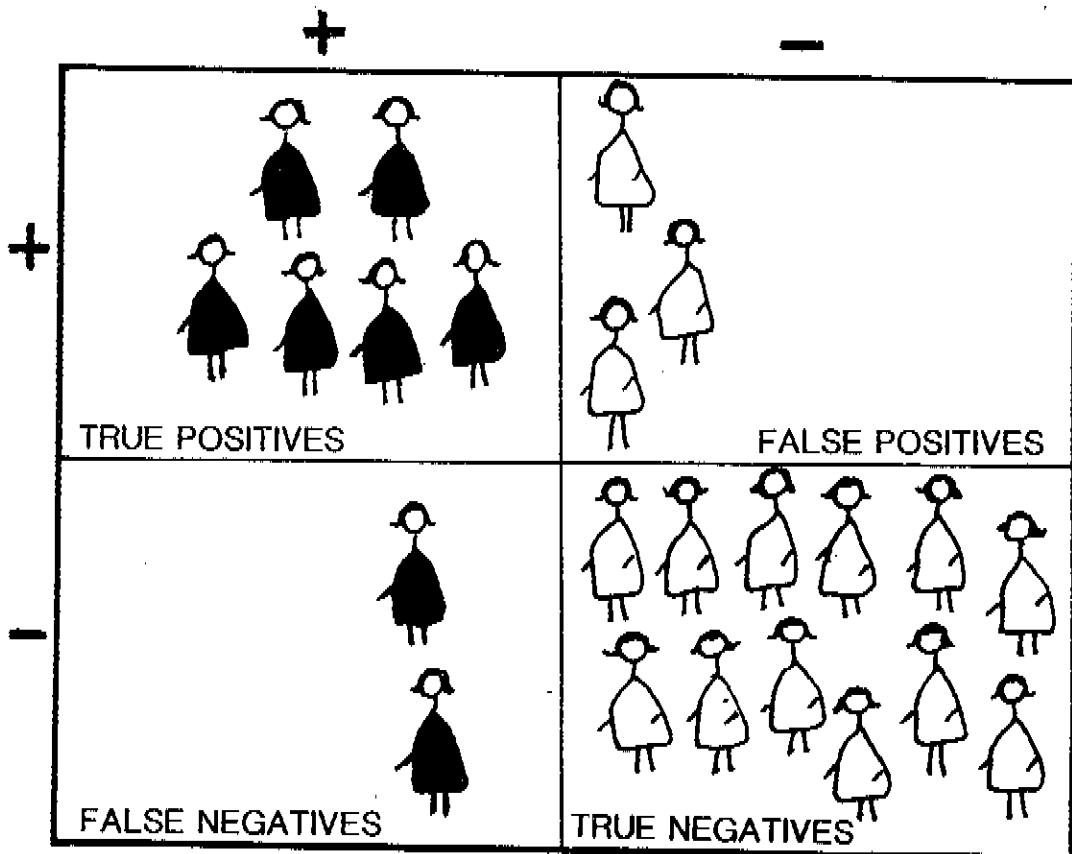
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**A WORKBOOK ON HOW TO PLAN AND CARRY OUT
RESEARCH ON THE RISK APPROACH
IN MATERNAL AND CHILD HEALTH
INCLUDING FAMILY PLANNING**



GLOSSARY



Division of Family Health
World Health Organization
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WORKBOOK ON HOW TO PLAN AND CARRY OUT
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GLOSSARY

Note: This glossary is intended to help those who are not familiar with certain terms used in A Workbook on How to Plan and Carry Out Research on the Risk Approach in Maternal and Child Health including Family Planning (Document No. FHE/MCH/RA/84.1). The definitions that follow are intended solely for use in connection with this workbook, and are not necessarily valid for any other purpose.

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- Abortion Termination of a pregnancy before the fetus has attained viability i.e. is capable of independent extrauterine life.
- Accessibility The condition and quality of health services that make them capable of being used. Accessibility includes such factors as the distance and time that separate an individual from the appropriate health services, as well as others such as cost, comfort, delay in being attended, convenience of clinic hours and acceptability of treatment received.
- Age-specific rate A measure relating the number of events (such as births and deaths) which occur in a specified time interval (usually a calendar year) to a specific age group in the population exposed to the risk of that event.
- Age-specific fertility rate The ratio of the number of live births in a year for a specific maternal age group to the number of women in that age group. Usually, it is expressed per 1,000 women in that age group.
Formula:
$$\frac{\text{Number of live births in a year to women in an age group}}{\text{Number of women in that age group}} \times 1,000$$
- Association In epidemiology, the general name for a relationship between two variables.
- At-risk Of individuals or groups, likely under the laws of mathematical probability to contract an illness or disorder or fall victim to an accident because they are exposed to a risk factor or engage in risk behaviour.
- At-risk group A group of persons who by reason of their biological, social or economic status, behaviour or environment are likely under the laws of mathematical probability to contract a disease or disorder or incur an accident within a predictable period.

Attributable risk (%)

The proportion of the total problem which can be either solved if a causative risk factor can be eliminated, or kept under observation if the factor can only be used to indicate risk.

Formula:

$$\frac{b(r-1)}{b(r-1) + 1} \times 100$$

where r = relative risk

b = proportion of population with the risk factor

Availability

A measure (in terms of type, volume and location) of the supply of health resources and services relative to the needs (or demands) of a given individual or community. Health care is available to an individual when he can obtain it at the time and place that he needs it, from appropriate personnel.

Bias

Any effect at any stage of investigation or inference tending to produce results that depart systematically from the true values (to be distinguished from random error).

Birthweight specific mortality rate

The ratio of the number of deaths of babies in a certain birthweight group during a specified time period (such as perinatal or neonatal) to the total number of babies in that birthweight group. It is usually expressed per 1,000 babies.

Formula:

$$\frac{\text{Number of deaths of babies in birthweight group in time period}}{\text{Number of babies in birthweight group}} \times 1,000$$

Chi-square

A test of significance whose calculation consists of summing up, for each cell of a table, the difference between observed value and the expected value had there been no association between the risk factor and the outcome.

The short-cut formula for calculating the value of chi-square for a 2 x 2 table is:

$$\frac{(ad - bc)^2 N}{(a + b)(c + d)(a + c)(b + d)}$$

(using the standard labelling of the cells as set out on page 158 in Section 5.7 of the workbook.)

Catchment area

The planned or actual geographical area from which the users of a health facility are drawn.

Catchment population

The population served by a health facility.

Cohort

A population of individuals all of whom experience a specified event within a specified period of time.

Community

A specified group of people whose common characteristic is that they live in a geographically defined area with its own health and social services and forming the basic element in a system of political administration covering the whole country.

Community participation

The involvement of individuals, families and local organizations in efforts to improve their own health and welfare and those of the community and to contribute to their and the community's development.

Control group

Group of persons from which a treatment or activity is withheld to enable comparison with a group receiving the treatment or activity.

Coverage

The proportion of the population who receives care of any kind.

Crude birth rate

The ratio of the number of births in a given population during a specified period of time to the number of persons in that population. Usually, it expresses the number of births in a given year per 1,000 population.

Crude death rate

The ratio of the number of deaths in a given population during a specified period of time to the number of persons in that population. Usually, it expresses the number of deaths in a given year per 1,000 population.

Disadvantaged

Not possessing the basic resources or enjoying the basic conditions considered to be the normal right of citizens in the society concerned.

Effectiveness

The degree to which a plan, a programme, or a project achieves its aims.

Efficiency

The degree to which minimum resources are used to achieve a given output (or with which maximum output is achieved from a given amount of resources).

Epidemiology

The study of the distribution and determinants of health-related states and events in populations, and the application of this study to the control of health problems.

Evaluation

A process that attempts to determine as systematically and objectively as possible the relevance, effectiveness and impact of activities in the light of their objectives.

Fetal death

Death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy.

Fertility

The production of live offspring. When it is measured in a population, abortions and fetal deaths are always excluded.

- Flow chart A diagrammatic representation of the sequence of operations in a complex project or programme.
- Frequency The number of occurrences of a given type of event, or the number of members of a population falling into a specified class.
- General fertility rate The ratio of the number of live births in a year to the number of women of reproductive age. Usually, it is expressed per 1,000 women aged 15 to 49 years old.
Formula:
$$\frac{\text{Number of live births in a year}}{\text{Number of women aged 15 to 49 years}} \times 1,000$$
- Guidelines An outline that gives guidance on how to perform a given task.
- Hazard A source of danger
- Health care delivery The provision of health care to those who need it. The term is a relatively new one that is intended to emphasize active delivery of care to persons in need of it, in contrast to the more passive approach of making health care available at a centre where those who need it must come to seek it.
- Health development Progressive, continuous enhancement of the health status of a community. Health and socioeconomic development are inseparably linked: health leads to and, at the same time, depends on socioeconomic progress. Health development implies coordination at all levels between activities in the health sector and those in other social and economic sectors, including education, agriculture, housing, water supply, communications and industry.
- Health indicator Any directly measurable variable that can be used to determine, directly or indirectly, the level of health of a particular population in any of its aspects. Health indicators are often used to assess the extent to which the objectives and targets of a programme or strategy are being attained.

Health policy

The course of action (or inaction) adopted by a government or other authority at any particular time in regard to the health of the people, the way in which it should be secured or improved, the financial means to be assigned to it, the types of establishments and services that should be provided, the targets that should be set, etc.

Health resources

All available means, including personnel, buildings, equipment, supplies and funds, for the provision of health care.

Health service

A permanent and organized system set up to deal with the health needs and demands of the population.

Health system

A set of interrelated elements, including services, institutions, and organizations, in the health and related sectors, together with the personnel who plan and operate them for the delivery of health care, interacting with the people who use them.

Household

For statistical and epidemiological purposes, a set of persons occupying the same dwelling.

Incidence

The number of instances of illness commencing during a given period in a specific population. Incidence is usually expressed as a rate, the denominator being the estimated number of persons in the specified population at the mid-point of that period.

Infant death

The death of a live-born child before reaching the first birthday.

Infant mortality rate

The ratio of the number of deaths of children under one year old to the related number of live births. It is usually expressed per 1,000 live births.

Formula:

$$\frac{\text{Number of deaths in the first 12 months of life}}{\text{Number of live births}} \times 1,000$$

<u>Intervention study</u>	An epidemiological enquiry in which a hypothetical cause-effect relationship is tested by deliberately modifying a supposed causal factor in a population and observing the outcome.
<u>Late fetal death</u>	Fetal death after having attained viability i.e. having been capable of independent extrauterine life.
<u>Late fetal death rate</u>	The ratio of the number of late fetal deaths to the related number of total births. It is usually expressed per 1,000 total births. Late fetal death rate = $\frac{\text{Number of late fetal deaths}}{\text{Number of total births}} \times 1,000$
<u>Life expectancy</u>	The average number of years that a person can be expected to live, on the assumption that prevailing conditions of mortality will continue.
<u>Life style</u>	Characteristic way of social life and individual behaviour in all areas of life (including habits of action and behaviour).
<u>Live birth</u>	Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live born.
<u>Low birthweight</u>	Birthweight of less than 2500 g

Low birthweight rate

The percentage of total births that have a low birthweight.

Formula:

$$\frac{\text{Number of birth with a low birthweight}}{\text{Number of total births}} \times 100$$

Matched controls

Persons, selected for comparison with a group under study, who have certain specified characteristics (such as age group and sex) in common with the members of that group.

Maternal death

Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Maternal mortality rate

The ratio of the number of maternal deaths to the related number of live births. It is usually expressed per 1,000 live births although it is often more convenient to use 10,000 as the denominator.

Formula:

$$\frac{\text{Number of maternal deaths}}{\text{Number of live births}} \times 1,000$$

Neonatal death

The death of a live-born child before it reaches the age of four weeks.

Neonatal mortality rate

The ratio of the number of deaths of babies under four weeks old to the related number of live births. It is usually expressed per 1,000 live births.

Formula:

$$\frac{\text{Number of deaths in the first 28 days of life}}{\text{Number of live births}} \times 1,000$$

<u>Neonatal period</u>	The first four weeks of life. It can be divided between the early neonatal period (the first week of life) and the late neonatal period (the next three weeks).
<u>Objective</u>	The desired end-state that a programme seeks to achieve. An objective is usually described in words rather than in numerical terms (indeed, it is often not quantifiable) and is less specific than a target.
<u>Observer error</u>	An error caused by failure of an observer to record and measure a phenomenon accurately.
<u>Occurrence</u>	In epidemiology, the frequency of a disease or of some other attribute or event in a population without distinguishing between its incidence and prevalence.
<u>Outcome measure</u>	A measure of the quality of health care in which the criterion is the achievement of a specified outcome or end result e.g. improved health, lower morbidity or lower mortality.
<u>Parity</u>	The condition of having borne children. In most official definitions, the offspring must have been viable. Therefore, parity includes live births and late fetal deaths but excludes abortions. The term followed by the appropriate figure indicates the number of children borne. For example, parity 2 means having borne two children.
<u>Perinatal death</u>	<p>The death of a fetus after it reaches viability or that of a liveborn child in the first week of life.</p> <p>Formula:</p> <p>Perinatal deaths = late fetal deaths + early neonatal deaths</p>

Perinatal mortality rate

The ratio of the number of late fetal deaths and early neonatal deaths to the related number of total births. It is usually expressed per 1,000 total births.

Formula:

$$\frac{\text{Number of perinatal deaths}}{\text{Number of total births}} \times 1,000$$

Perinatal period

Conventionally, the period from the 28th week of gestation to the end of the first week of extrauterine life.

Peripheral level

The level farthest removed from the central level. It constitutes the front line of a primary health care system.

Pilot survey

A small-scale survey carried out as a preliminary to a full-scale survey, mainly with a view to obtaining information that can then be used to design the wider survey in the most efficient way possible.

Postneonatal death

Death of an infant after the first 28 days of life but before the first birthday.

Postneonatal mortality rate

The ratio of the number of postneonatal deaths to the related number of live births. It is usually expressed per 1,000 live births.

Formula:

$$\frac{\text{Number of postneonatal deaths}}{\text{Number of live births}} \times 1,000$$

Predictive value

The likelihood that the result of a diagnostic test is a true result e.g. that a person found to be positive for a risk factor actually does develop the disease under consideration.

<u>Prevalence</u>	The number of persons with a certain condition in a specific population, without any distinction between new and old cases. Prevalence is usually expressed as a rate, the denominator being the number of persons in that population at that point in time.
<u>Puerperium</u>	The period after childbirth during which the female reproductive tract is returning to normal (approximately six weeks).
<u>Random error</u>	A deviation of an observed value from a true value that behaves like a random variable in the sense that any particular value occurs as though chosen at random from a probability distribution of such errors.
<u>Referral</u>	The practice of sending an individual to another health worker or health facility for services which the referring health worker or health facility is not prepared or qualified to provide.
<u>Relative risk</u>	<p>The ratio of the probabilities of a bad outcome for those with and without the risk factor.</p> <p>Formula:</p> $\frac{\text{Probability of a bad outcome given the risk factor present}}{\text{Probability of a bad outcome given the risk factor absent}}$
<u>Risk</u>	Probability that an event (usually unfavourable) will occur.
<u>Risk factor</u>	Any biological, environmental, social, behavioural or other factor that is known to be associated with, or the cause of, an increased probability of the occurrence of a particular disease, accident or illness.
<u>Sample</u>	A selected subset of a population. A sample may be random or nonrandom and may be representative or nonrepresentative.

- Sample size The steps for determining the necessary sample size are detailed on pages 128 and 129 of the workbook.
The formula for a cohort study is:
$$\frac{z^2(P)(1-P)}{d^2}$$

Where d = desired precision
p = estimated proportion of the condition in the population
and z = standard normal deviate for the desired confidence level
- Screening The process of applying various tests and procedures to a given population group with a view to detecting individuals with risk factors.
- Self-care All health care activities carried out by individuals for their families and for themselves, including the maintenance of health, the prevention of disease, self-diagnosis, first aid, routine care, self-treatment including self-medication.
- Self-referral The seeking of health care by a patient on his own initiative.
- Sensitivity A measure of the ability of a test to identify correctly all persons who are suffering from a given condition.
- Specific death rate A death rate computed for the members of a given subpopulation, e.g. all those of a given age (age-specific death rate), sex (sex-specific death rate) or both (age-sex-specific death rate).
- Stillbirth See "Late fetal death"
- Study population A population subjected to organized epidemiological study.

Systematic error

Any error that results from a faulty measuring instrument or technique or from the use by the observer of an inappropriate technique i.e. any error not due to chance.

Target

A specific end result to be achieved by an activity or activities. It differs from an objective in that it is more specific and limited in scope and in time and is usually expressed in numerical terms.

Target population

1. The collection of individuals about which we want to make inferences. The term is also used to indicate the population from which a sample is drawn.
2. The group of persons for whom an intervention is planned.

Task analysis

The breakdown of the various tasks performed by a health worker into their components. These are the smallest units of analysis used for defining specific learning objectives, which include acceptable levels of performance for each component.

Validity

The ability of a test to measure accurately what it is supposed to measure.

Vital statistics

The branch of statistics mainly concerned with vital events (such as births, marriages and deaths) and the incidence of disease among populations; data which can be used to determine changes in the health status and welfare of communities over a period of years, to assess the probable causes of such changes and to take remedial action when needed.

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