

# Nutritional anthropology

UNIT IV

# Operation research

- O.R. is a scientific approach to problem solving for management.
- In fact in Operation Research, research techniques and scientific methods are employed for the analysis and also for studying the current or future problems. Thus, Operation Research offers alternative plans for a problem to the management for decisions.

# Qualitative research

- **Qualitative research** is a scientific method of observation to gather non-numerical data. This type of research "refers to the meanings, concepts definitions, characteristics, metaphors, symbols, and description of things" and not to their "counts or measures. This research answers how and when a certain phenomenon occurs." Qualitative research approaches are employed across many academic disciplines, focusing particularly on the human elements of the social and natural sciences;

- The three most common qualitative methods, explained in detail in their respective modules, are participant observation, in-depth interviews, and focus groups. Each method is particularly suited for obtaining a specific type of data.
- Participant observation is appropriate for collecting data on naturally occurring behaviors in their usual contexts.
- In-depth interviews are optimal for collecting data on individuals' personal histories, perspectives, and experiences, particularly when sensitive topics are being explored.
- Focus groups are effective in eliciting data on the cultural norms of a group and in generating broad overviews of issues of concern to the cultural groups or subgroups represented.
- What forms do qualitative data take?
- The types of data these three methods generate are field notes, audio (and sometimes video) recordings, and transcripts.

# Qualitative methodology

- There are four components of qualitative research methodology: qualitative research strategies, methods of sampling, data sources and collection, and data analysis.
- *Qualitative Research Strategies*
- Qualitative investigators employ a variety of strategies. These strategies reflect an investigator's overall approach to addressing the research questions being studied.
- The most common strategies are - **Ethnography**.
- Ethnography is the study of a social system, culture, social life, and activities of daily life, through observation. Often, an investigator will engage in cultural immersion to describe the culture. For instance, a food and nutrition professional working with the Special Supplemental Nutrition Program for Women, Infants, and Children serving an inner-city Hmong community studies the dietary habits of cultural Hmong. This professional lives in the Hmong community and participates in community events.

- **Grounded theory** - This approach involves a research setting and asking the general question, “What is going on here?” or “What are the problems here?” but sometimes asking more specific questions such as, “How do parents of adolescent girls with anorexia nervosa cope?” Through the use of interviews, focus groups, and document analysis, an investigator allows the data to inform her/him.
- **Phenomenology**- Phenomenology attempts to understand people's emotions, attitudes, thoughts, meanings, perceptions, and bodily experiences as or after they have experienced a phenomenon. Suppose a food and nutrition professional wants to understand the experience of food stamp users in her/his community. Through the use of qualitative methods she/he could describe their thoughts, emotions, and perceptions. Whereas ethnographies focus on describing a culture, phenomenologies focus on experiences of individual people.

- **Narratives** - Narratives involve collecting life histories or biographies to understand a phenomenon. Suppose a food and nutrition professional in private practice specializing in people with celiac disease is interested in looking for themes related to food, family background, family history, human development, and disease history to increase the effectiveness of treatment and early detection.
- **Case studies**- These can be conducted on individuals or communities. A sample of like individuals is assembled and data are compiled into a community case. Describing several like cases has more validity than studying one individual.
- **Methods of sampling**-
- In qualitative research probability sampling is used, but purposive sampling is more prevalent. Purposive sampling is an intentional selection of a sample based on some characteristic. This sampling is done in a methodical way to find specific research participants. Sometimes the sample is chosen with a potential to generalize the results to the larger population of like individuals, but more often not. Patton has identified various types of purposive sampling. The most common are maximum variation, extreme case, homogeneous, criterion, theoretical, and snowball .

# Participatory research

- Participatory research comprises a range of methodological approaches and techniques, all with the objective of handing power from the researcher to research participants, who are often community members or community-based organizations.
- In participatory research, participants have control over the research agenda, the process and actions. Most importantly, people themselves are the ones who analyze and reflect on the information generated, in order to obtain the findings and conclusions of the research process.



# Participatory research methods


- **Surveys** – surveys allow for information to be gathered from a number of people who respond individually to the same set of questions. The information gathered is tabulated into quantitative data.
- **Focus groups**- it brings a small group of people together to discuss a certain issue. It involves a facilitator asking a handful of questions that produce qualitative data.
- **Interview** - interview feature a series of open-ended questions to sample respondents. The information gathered can be synthesized into both quantitative and qualitative data.
- **Community mapping** -it is the method that uses spatial data, identified by community groups, is used to analyze and communicate community issues, assets, and strategies for change.

# Application of participatory research

- Application of participatory research in public health research is relatively new.
- In a method known as **photo-elicitation**, researchers provide participants with cameras, inviting them to participate by taking pictures and visually interpreting a given subject. Guided by research questions and prompts, participants are given the unique opportunity to take pictures of meaningful elements of their environment—capturing objects, landscapes, events, and people—that relate to the research topics. This technique is beneficial in extracting perceptions and attitudes defined by an individual's viewpoint and context
- Moreover, media and communication research finds that the use of participatory and visual methods may be viable in bridging gaps between researchers and research participants, effectively allowing for comprehensive learning about various social issues and phenomena.

# Use of research processes in nutrition health issues

- *Participatory research technique*
- PR is increasingly being used for community based health and development project. Here, the local community members are involved in needs assessment and develop a priority based health plan and act upon it.
- A non-government organization, Mother and Infant Research. Activities (MIRA) in rural Nepal, involved women self help groups through participatory research for planning perinatal care services

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- In rural India, Community led Initiatives for Child Survival (CLICS) project involved community members through participatory research and action on key maternal and child health issues.
  - A participatory research and action for rural adolescent girls could involve adolescent girls to improve their practices related to menstrual hygiene and explored the trend of change over the period by using trend analysis techniques.

- ***In-depth techniques:*** These are qualitative in-depth flexible discussions or interviews with the group or person who knows what is going in community about the topic on which we want to get information. These methods are widely used for exploring sensitive topics in medical education, demography and public health etc. Some commonly used methods are Focus Group Discussion (FGD), Key Informant Interviews (KII) and In-depth Interview (IDI).
- A study on newborn care practices in slums of Delhi undertook KII and IDI of caregivers for exploring their health care seeking behavior for newborn danger signs.
- Program for Appropriate Technology in Health (PATH) have given guidelines for development of health education material where FGDs are advised for needs assessment for health message development.

- *Systematic techniques*: These techniques can be used with almost any qualitative research methods such as focus group or participatory research to collect systematic and structured data on a specific research issue.
- Examples are Free listing combined with Pile sorting, Free list combined with pile sort can be used for exploring the perceptions of local people on a given research topic in a systematic manner. Free list exercise can be undertaken as a pre-survey qualitative research for exploring local terms for locally relevant questionnaire on a relatively new topic.
- In qualitative research for exploration for various reasons for malnutrition, free list and pile sort exercise were used with the Anganwadi workers and FGDs were facilitated with the group of mothers to their opinion about supplementary food.

# rapid rural appraisal and programme design

- The term RRA is used here to refer to a discrete study (or series of studies) in one or more communities.
- These RRA studies typically last from four to eight days.
- During this period a multidisciplinary team of researchers looks at a set of issues that are clearly defined by the study objectives. The team works in close collaboration with community members, involving them in all aspects of the collection and analysis of information.
- Information is collected using a diverse set of tools and techniques that facilitate the participation of community members
- The focus is generally on gathering information and ensuring that the information is as rich and as accurate as possible.
- This information can then be used in a variety of ways including project design, improvement of an ongoing project, revision of national policies, etc.

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# Use of RRA in programme design

- **Pre project** - RRAs are particularly useful in gathering information that will help agencies to orient their programs. By conducting several RRAs in an area that is new to the agency, they will get a sense of the range of issues that need to be addressed, and be better informed on the context (social, economic, political, environmental, etc.) in which the projects will intervene.
- **Project design** - RRAs are essential in the design phase to ensuring that the project is appropriate to the realities in the area where it will be working. The more that projects can be customized to the peculiar circumstances where they will intervene, the greater their chance of success.
- **Early project intervention**- RRAs early in the project can help the project further refine its objectives and activities. If RRAs have not been done in the project design phase, these studies will be essential to correcting any design flaws. In some cases, these RRAs will logically lead into PRAs that draw the communities more deeply into the planning process. Several health projects have or are planning to use RRA to refine their development of health education messages by studying community perceptions of health problems, barriers, and enabling factors, e.g. Madagascar.

- **Mid project** -As the project gets underway , the staff may choose a select number of communities in which to do regular RRA studies to monitor implementation, and to assess the effectiveness of the approach. This will enable corrections to be made as problems are identified. RRA is also a very useful method to use in mid-term evaluations of project activities in selected sites. The Gambia used some RRA tools for a mid-term review of its Sesame Growers Association project with its counterpart.
- **End of project** - The end of project evaluation will almost certainly wish to include an RRA assessment of strengths and weaknesses. This evaluation will look at who was affected by the project and the impact on those who participated...as well as those who did not. A project in Senegal used RRA techniques to evaluate the impact of its seed cereal banks.
- **NOTE -PRA** – (PARTICIPATORY RURAL APPRAISALS) –
- PRA will be used here to refer to a more extended process that involves not only the collection of information but also its eventual use by the community as it plans further activities. The emphasis in PRA is often not so much on the information as it is on the process and seeking ways to involve the community in planning and decision making. If an RRA is a discrete study, a PRA is an extended process that can last for months or years as communities develop their own skills needed to address issues, analyze options, and carry out activities.

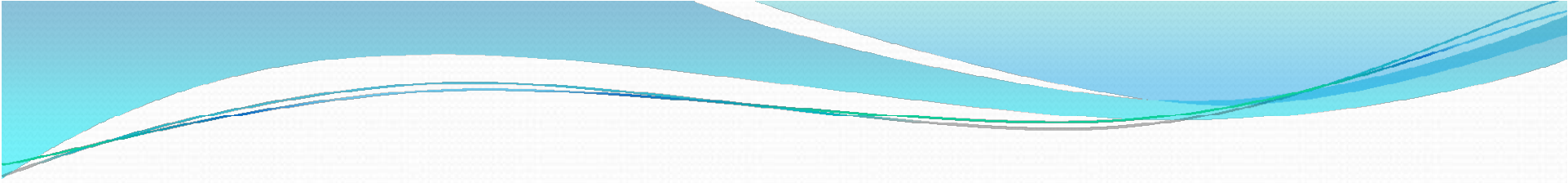


# URBAN MALNUTRITION CONTROL IN URBAN HEALTH SYSTEMS.



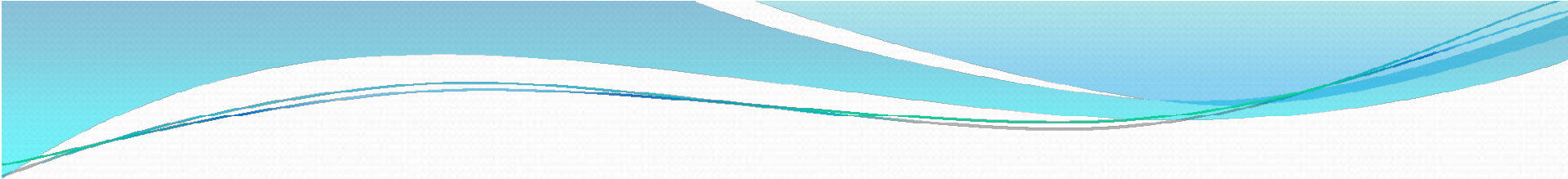
**It goes without saying that the world is rapidly urbanising – and it is giving rise to the challenge of urban malnutrition.**

**Global, national and local governments have to start anticipating how we will cater for 5 billion people living in cities in 2030 and how they will have access to nutritious foods in a sustainable manner.**



Malnutrition, which is often associated with the poor and rural has not spared even the well-to-do urban elites living in towns and cities.

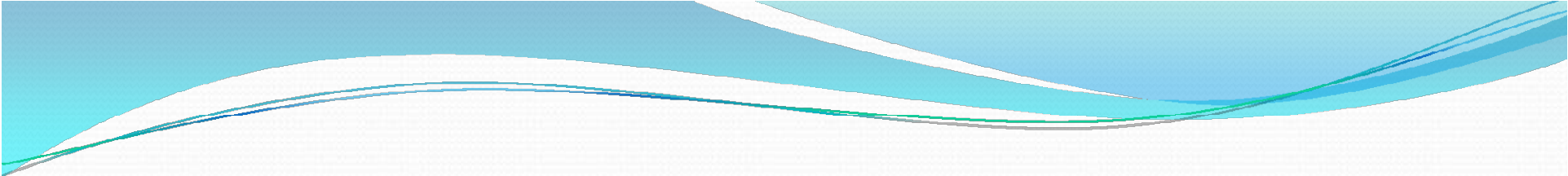
Given the lifestyle changes in both rural and urban populace , poor nutrition has become a common problem with insufficient ,excessive or imbalanced consumption of nutrients, among both the poor and rich.

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- The growth of cities in the 20th century was unprecedented. The total global urban population, which stood at just 10% of the global population at the start of that century, had by the first years of this century reached 50%. This amounted to some 3.5 billion people, a figure which is projected to almost double in the next 40 years.
  - The benefits of urbanization are celebrated as cities attract and generate investment, higher incomes, basic services, stronger institutions and economic opportunities for their inhabitants. However, urban expansions and related benefits are uneven, and as a result millions of children in marginalized urban settings confront daily challenges and deprivations of their rights. Both acute and chronic food insecurity and under nutrition amongst the urban poor, especially children under 5 years of age, is a consequence.

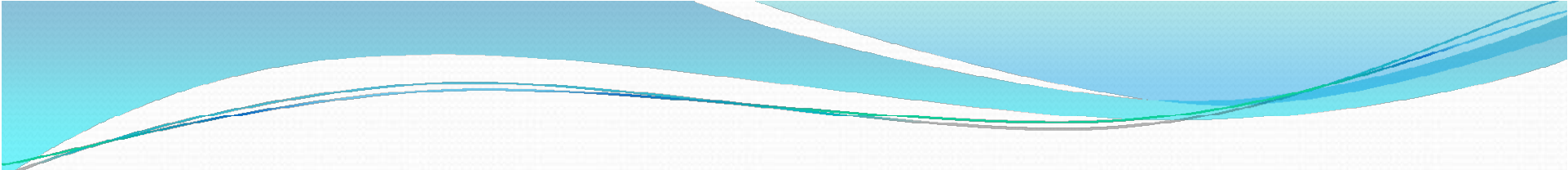


Four priority areas are laid out in a recent policy brief addressing policies concerning urban diets and nutrition that are in particular need of change:

- ***Governance of urban food systems:*** Local leadership and governance are essential in addressing the challenges of poor diets and nutrition in urban areas. Close connection is needed with the differing nutritional challenges of diverse urban populations (such as class, age, gender, ethnicity, religion and culture, for example) and a clear mandate is needed to deliver high-quality diets as a key policy objective.

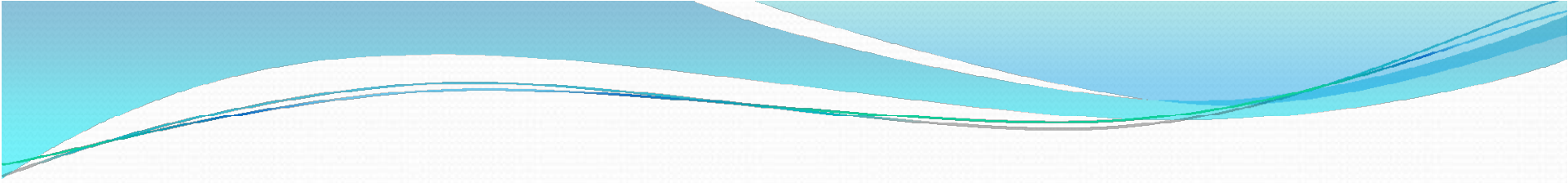
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- ***Wider aspects of urban governance:*** This includes spatial planning (including urban form, land management and tenure security), infrastructure and housing, transport planning, education policy, access to energy, water and sanitation, and pre- and ante-natal policies and interventions. Policymakers must engage with partners and other actors, which seldom happens at present.
  - ***Policies relating to the informal retail sector:*** A fundamental shift in attitude is needed whereby the value of the informal sector is better recognised and misconceptions are set aside.



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- ***Triple burden of malnutrition:*** Policymakers in many low- and middle-income countries (LMICs) are already encountering the triple burden of malnutrition – underweight, micronutrient deficiencies and overweight and obesity – in urban populations. There are no quick fixes to address the challenge of overweight and obesity. Instead, national authorities and municipalities must develop a long-term strategy to limit future rises as a minimum.

The background is a solid blue color. At the top, there are several wavy, overlapping lines in various shades of blue and teal, creating a sense of movement and depth.

**WOMEN'S REPRODUCTIVE  
HEALTH AND RELATED  
PROBLEMS LIKE ANAEMIA.**



**Access to comprehensive sexual and reproductive health and rights is a basic human right. However, the global status of women's and girls' sexual and reproductive health and rights is disturbing: 214 million women worldwide want, but lack access to, contraception; more than 800 women die daily from preventable causes related to pregnancy and childbirth.**

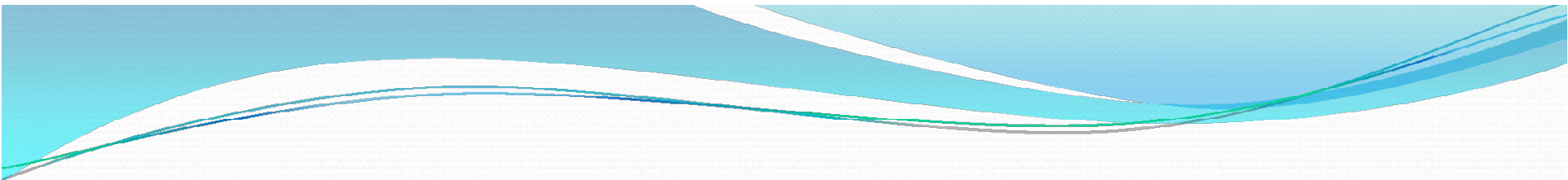


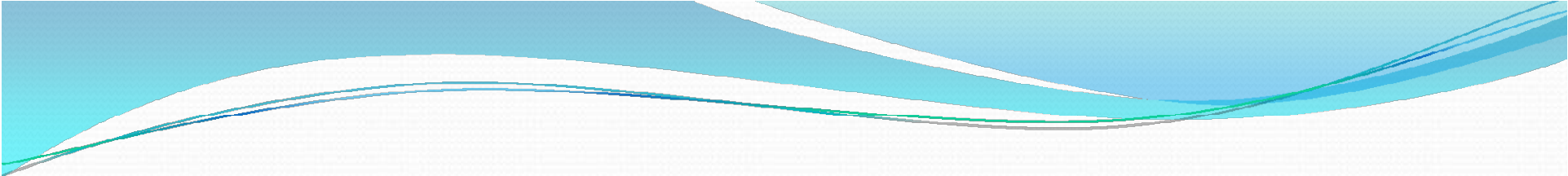
- **WHY IT MATTERS**

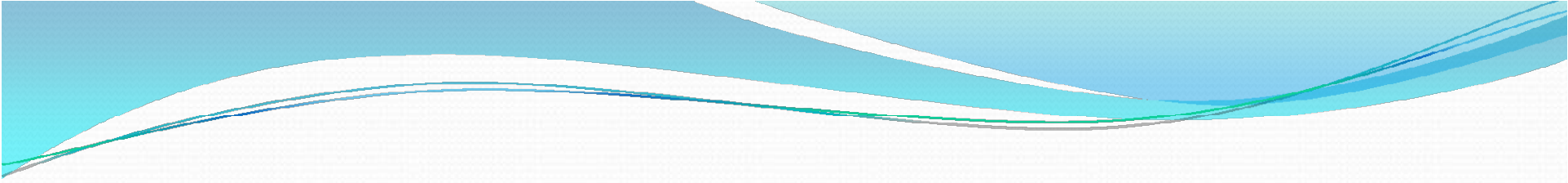
Women and girls around the world, especially those living in poverty, face restricted or no access to information and services about their reproductive health and rights. Some of the barriers to sexual and reproductive health and rights include discrimination, stigma, restrictive laws and policies, and entrenched traditions. Progress remains slow despite the evidence that these rights can have a transformative effect, not only on individual women, but on families, communities, and national economies. In order to drive equality, we all must commit—fully and actively—to the sexual and reproductive health and rights of all women, girls, and trans people.



# QUALITATIVE APPROACHES FOR WOMEN'S REPRODUCTIVE HEALTH

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- *The pivotal role of access to sexuality education*
  - Teaching sexuality education to all boys and girls in schools is essential to guarantee women's sexual and reproductive rights and is a full component of the rights to education and to health. Both the [European Committee of Social Rights](#) and the [UN Committee on the Rights of the Child](#) have stressed that adolescents should have access to appropriate and objective information on sexual and reproductive issues, including family planning, contraception and the prevention of sexually transmitted diseases, as part of the ordinary school curriculum and provided without discrimination on any ground.


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- ***The need to further remove barriers in access to contraception***
  - As **stressed** by World Health Organization (WHO) , meeting the need for contraception is an important strategy for reducing unintended pregnancies, abortions and unplanned births. However, despite significant medical progress in this field, recent **studies** have shown that access to contraception is hindered by several factors in Europe, including misinformation about the safety of contraceptives and stigma hindering women from discussing contraceptives with medical professionals.

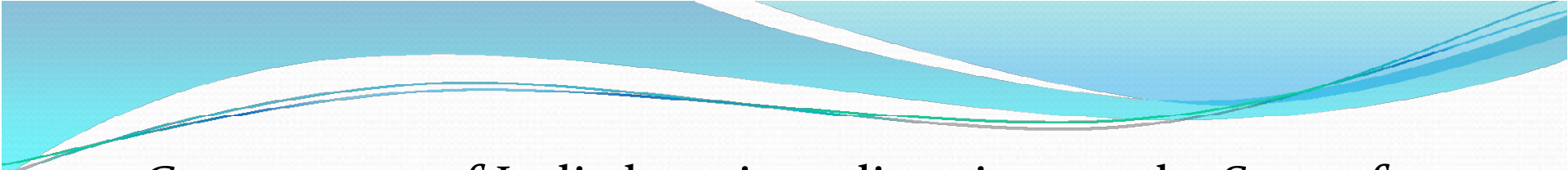
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- ***Ensuring women's rights, dignity and autonomy in maternity health care***
  - There have been disturbing reports of human rights violations in the context of maternity health care, as illustrated by recent NGO-led [research](#) on Slovakia. Patterns of segregation against Roma women in maternity hospitals in several countries are also an issue of concern. The [European Court of Human Rights](#) has also made it clear that “private life” incorporates the right to choose the circumstances of giving birth.



# MEASURES TAKEN FOR PROBLEMS LIKE ANAEMIA IN WOMEN.

- i. Ministry of Health and Family Welfare in 2013 launched “National Iron Plus Initiative” as a comprehensive strategy to combat the public health challenge of Iron Deficiency Anaemia prevalent across the life cycle. There are age specific interventions with Iron and Folic Acid Supplementation and Deworming for improving the haemoglobin levels and reducing the prevalence of anaemia for all age groups, that is children 6-59 months, 5 – 10 years, adolescent girls and boys (11-19 years), pregnant and lactating women and women in reproductive age group (20 – 49 years).

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- Universal screening of pregnant women for anaemia is a part of ante-natal care and all pregnant women are provided iron and folic acid tablets during their ante-natal visits through the existing network of sub-centers and primary health centres and other health facilities as well as through outreach activities at Village Health & Nutrition Days (VHNDs).
  - Every pregnant woman is given iron and folic acid, after the first trimester, to be taken 1 tablet daily for 6 months during ante-natal and post-natal period. Pregnant women, who are found to be clinically anaemic, are given additional tablet for taking two tablets daily

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- Government of India has given directions to the States for identification and tracking of severely anaemic cases at all the sub centres and PHCs for their timely management.
  - Health and nutrition education through IEC & BCC to promote dietary diversification, inclusion of iron folate rich food as well as food items that promotes iron absorption.
  - To tackle the problem of anemia due to malaria particularly in pregnant women and children, Long Lasting Insecticide Nets (LLINs) and Insecticide Treated Bed Nets (ITBNs) are being distributed in endemic areas.
  - Health management information system & Mother Child tracking system is being implemented for reporting the cases of anemic and severely anaemic pregnant women.



THANKYOU.