

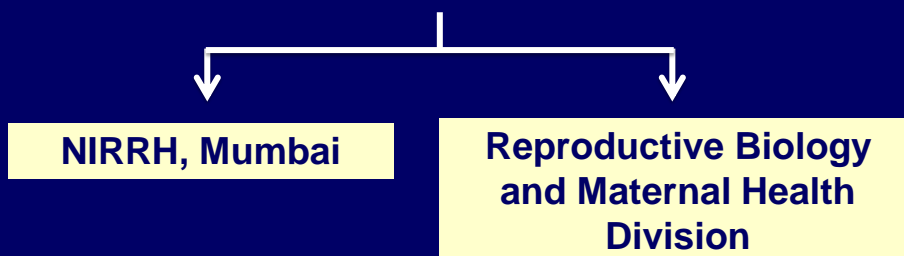
Programmes of ICMR on Reproductive Health/Maternal Health in Tribal Population

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**Stakeholder Consultation on Tribal Health
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Research Activities in the Area of Reproductive/Maternal Health at ICMR

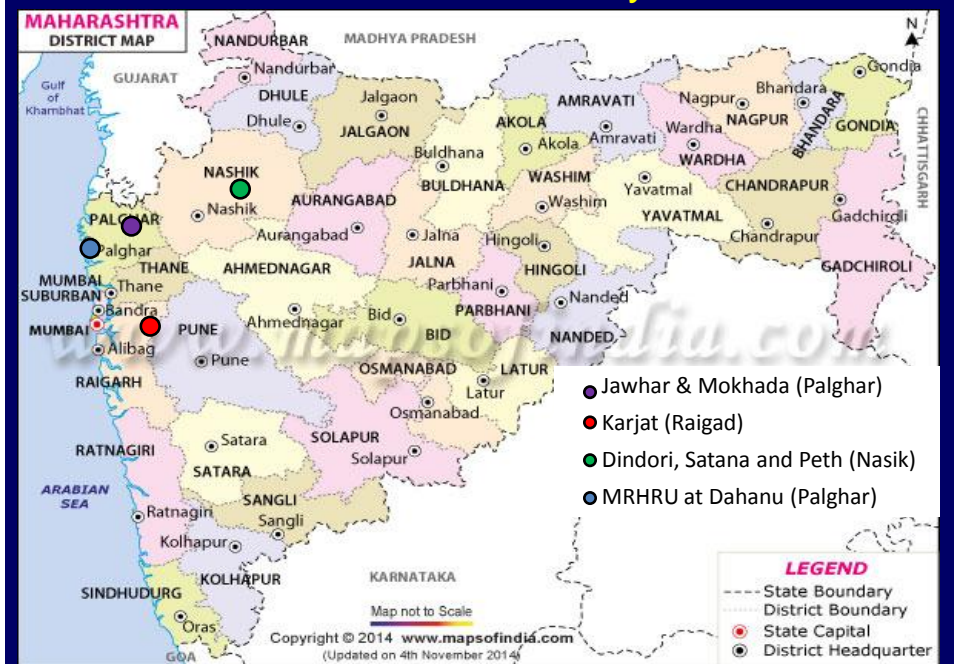


Studies in Tribal Population

NIRRH Activities:

- Adolescent Reproductive and Sexual Health (ARSH)
- Expanding Contraceptive Choices
- Burden of Reproductive Disorders
- Infertility
- RTI/STI and Cervical Cancer

Tribal Blocks Covered by NIRRH



Adolescent Reproductive and Sexual Health

Establishing, Implementing, Sustaining ARSH
Services as per the National Standards of
ARSH Implementation Guide in Karjat Block of
Raigad District of Maharashtra

Adolescent Health: Strategy

- Adolescent Friendly Health Clinics (AFHCs) named 'Maitri' were established which covered adolescent and youth population in the age-group of 10-24 years
- For operating and sustaining these ARSH clinics, all the service providers, community gatekeepers, panchayat members and school teachers were trained on ARSH issues
- IEC material (Posters, Pamphlets and Poems in local language) on ARSH developed at NIRRH was submitted to Government of Maharashtra which was adapted and made available on a large scale in the state
- Further ARSH clinics were established at sub-centre level

Funding: WHO and Govt. of Maharashtra

Adolescent Health: Our Efforts

- To strengthen the existing ARSH clinics, outreach activities were undertaken to create demand among adolescents by involving Peer volunteers, NSS students, ASHAs, AWWs, NGOs and local groups
- Health camps were conducted in all the tribal health facilities wherein 2800 adolescents participated. Linkages between different departments were established among NRHM, ICTC and education
- SOPs for linkages between school health services, NGOs and AFHCs were drafted and submitted to the state officials for finalization

ARSH services operationalized in
three tribal PHCs of Karjat Block

ARSH Services

Challenges and limitations:

- Teenage pregnancies (<18 years) are under reported
- Inadequate infrastructure and frequent turn over of staff affects services
- Ashram school's needs are very unique. Need sensitized and trained manpower to handle adolescent issues
- Weak health service delivery system is a non-starter for rolling out ARSH strategy conversely ARSH intervention has a potential to improve it

Way forward:

- Tribal PHCs and Sub-centres must have trained staff on adolescent health issues
- Access to information and counselling must be improved through outreach activities
- Marriage registration should be strengthened that could help enroll them in preventive and promotive health services

Snapshots (ARSH Programme)



Male FGD on ARSH conducted in Tribal PHC, Khandas in Karjat block



Inauguration for Maitri Clinic at Karjat block



IEC material display at Tribal PHC Khandas in Karjat block



Sensitization session on ARSH conducted in Karjat block

Expanding Contraceptive Choices

Capacity Building of Peer Leaders for Promoting Reduction in Early Marriage and Pregnancy Among Rural Unmarried Adolescents in Maharashtra

Intervention session with girls



Intervention session with boys



Objectives: To develop and implement on pilot basis a community-based peer led program to delay age at marriage and prevent early pregnancies

Findings: Almost all boys and girls were aware of legal age at marriage for boys and girls. Awareness about contraceptive methods among girls was low as compared to boys. Almost all boys, girls, mothers and fathers agreed that it is important for young people to receive family life education/sex education and well accepted the pilot programme.

Implications: Need for peer led educational programme in the community for preventing early marriage

Funding: University of California, San Diego

Gender Equity-focused Male Centered Family Planning for Rural India

survey: Interview of husband



Urine pregnancy test of wife



Objectives: To enhance young couple's contraceptive knowledge and acceptance of spacing methods through gender equity focused family planning interventions delivered by the village health care providers.

Findings: Use of spacing methods among rural couples remains low. Positive gender attitudes and active discussions by husband on family size is more likely to increase current use of modern contraceptive method

Implications: Men's gender equity attitudes are an important intervention target for promotion of women's control and use of modern spacing methods.

Funding: DBT under Indo_US Programme for Contraceptive Research

Burden of Reproductive Health Disorders

Magnitude and Determinants of Chronic Obstetric Morbidities in Nashik District, Maharashtra

- Conducted in six PHC areas in Nashik district of which three were tribal (Hindu Mahadeo Koli, Konkana and Bhil)
- Aim of the study was to assess the magnitude and determinants of defined chronic obstetric morbidities
 - Obstetric fistula
 - Genital prolapse
 - Chronic (PID)
 - Secondary infertility

Funding: UNFPA

Obstetric Morbidities

- Household interviews were conducted among 899 tribal non-pregnant ever-married women with proven fertility in reproductive age group
- Clinical exam. of 623 women done
- Observations
 - 87% women were engaged in unskilled labour, 97% had age at marriage less than 18 yrs and age at first pregnancy less than 21 yrs
 - 90% deliveries were conducted at home and among them 85% were conducted by Dais
 - Doctors conducted only 6.3% deliveries while ANMs conducted 7% deliveries
 - 5.7% women had prolapse, 1.7% had chronic PID, 1.7% secondary infertility and 0.1% fistula

Obstetric Morbidities

- Challenges and limitations:
 - Poor treatment seeking behaviour which needs to be improved
 - Still opt for home remedies initially and then seek treatment at Govt facilities
 - Transportation facilities still poor
 - Infrastructure facilities at health centres need to be improved
 - Proper referral system needs to be established



Study planned at two tribal blocks in Nashik district for improving reproductive health seeking behavior among women

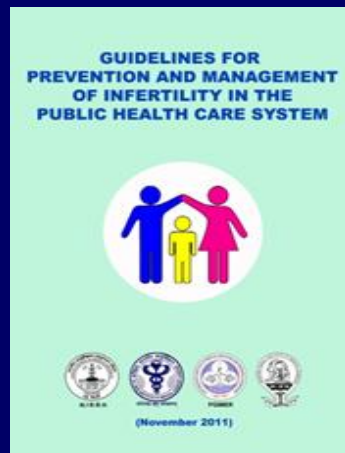
Infertility

Infertility among Khairwar Tribe of Sidhi District in Madhya Pradesh

Plan of action:

NIRRH team with the help of its field unit clinicians at Motilal Nehru Govt. Medical College, Allahabad and NIRTH, Jabalpur will do clinical examination of eligible couples.

Guidelines for Prevention and Management of Infertility in the Primary Health Care System in India



- These guidelines were disseminated at the Regional Networking meeting of WHO SEARO Collaborating Centers, on 16-17 February 2012
- The guideline document was submitted to WHO, SEARO & Ministry of Health, Government of India on 11th April 2012, so that it could be considered for incorporation in the NRHM

Study Outcomes

- High burden of infertility in the study districts
- Inadequate facilities and services particularly at CHCs and PHCs
- Addressing infertility is not its mandate
- Poor awareness about the preventable causes of infertility such as RTI/STI, unsafe abortion and delivery
- The community perceives that the public health system do not have much to address the problem of infertility

Consultation-cum-Dissemination meeting: 23rd May, 2013

Participants:

MoHFW, GOI, ICMR, UNFPA, WHO and its CCs, FOGSI, State DHS, Medical Colleges and Experts

Recommendations:

Development of service delivery framework on prevention and management of infertility at various levels in the PHC system

RBMH Division (ICMR): Programme on Tribal Health

Impact assessment of an intervention package to improve maternal and child health services among primitive Baiga tribe of Dindori District in Madhya Pradesh:

PI: Dr Dinesh Kumar, NIRTH, Jabalpur

Date of start: 1st May 2013, Duration: 3 years

Objectives:

- To provide intervention for improving the utilization of maternal and child health care services
- To generate the awareness for proper pregnancy care and promote institutional delivery
- To determine the level of utilization of maternal and child health care services and its benefits

Utilization of MCH Services in the Control and Intervention Areas

Utilization of MCH care services	Intervention Village (X)	Control Village (Y)	Improvement Z=X-Y
Antenatal care	85.2%	69.8%	15.4%
T.T. vaccination	90.7%	86.4%	4.3%
Consumption of IFA tablet	91.6%	88.5%	3.1%
Hospital delivery	41.7%	17.4%	24.3%
Postnatal services	87.5%	68.1%	19.4%
Awareness of MCH	87.7%	40.8%	46.9%

Other On-going Studies (RBMH Funded)

Sr. No.	Title	PI
1	Review of traditional childbirth practices among various tribal communities in Maharashtra	Dr. Shahina Begum NIRRH, Mumbai (2015-2016)
2	Assessing the status of micronutrients with special reference to Zinc in adolescents of Bhil, Gond, Korku and Pardhi tribes of Madhya Pradesh	Dr. Abhijit Pakhare AIIMS Bhopal (2015-2016)
3	Indigenous knowledge of health care practices during pregnancy, childbirth and postnatal period: A study on the Karbi tribal group of North East India	Mr. Somenath Bhattacharjee Assam University (2014-2016)
4	An assessment of intervention measures for prevention of malaria in pregnancy: A prospective longitudinal study in Central India	Dr Neeru Singh NIRTH, Jabalpur (2015-2017)

Recent Initiative at NIRRH

Addressing Health Issues of Tribal Population of Palghar District in Maharashtra

Model Rural Health Research Unit: Dahanu, Maharashtra

Palghar
District



Thane
District

Tribal and Non Tribal PHCs in Palghar District

Taluka	Total PHCs	Tribal PHCs	Non Tribal PHCs
Mokhada	4	4	-
Jawhar	4	4	-
Vikramgad	3	3	-
Talasari	4	4	-
Dahanu	9	9	-
Wada	4	4	-
Palghar	10	5	5
Vasai	8	3	5
Total	46	36	10

Local Disease Burden of Palghar District

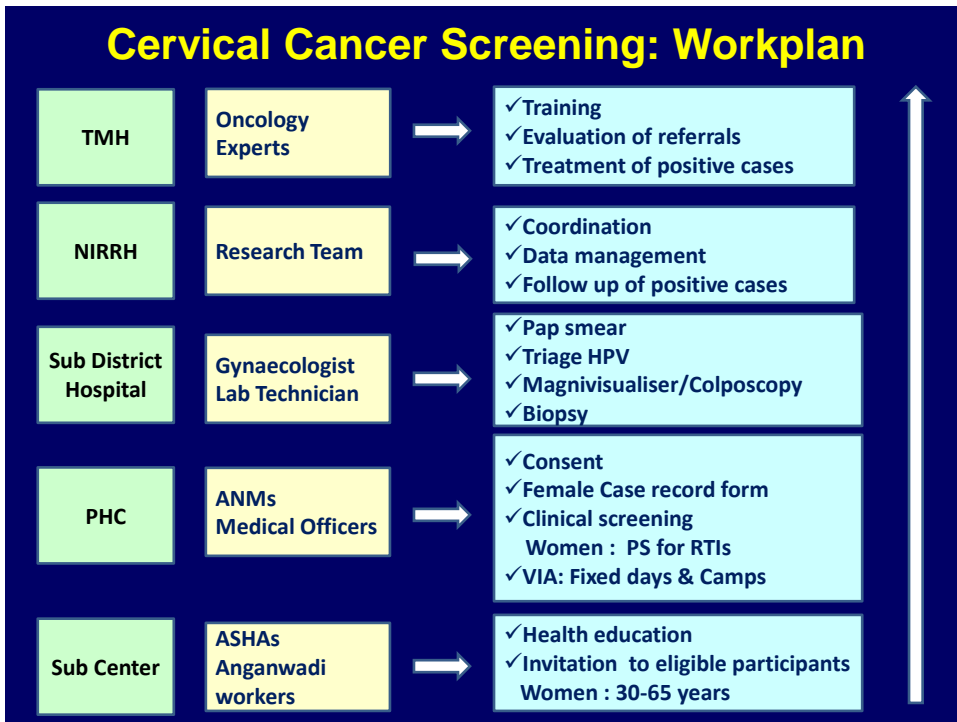
- Reproductive tract infections
- Teenage pregnancy
- Hemoglobinopathies: Sickle cell anemia
- Snake bite and scorpion bite
- Alcoholic liver disease

RTI/STI and Cervical Cancer

- Screening camps in the community for detection of RTI/STI and cervical cancer with the help of local NGOs
- Interventions and follow up
- Training health care providers



**Implementation of Cervical Cancer Screening
in Primary Health Care System of Tribal block
of Palghar District of Maharashtra**



Expected outcome

- Capacity building of health care providers to undertake comprehensive cervical cancer screening program
- Generate awareness in the community about cancer screening
- Develop effective referral linkage
- Information on burden of pre cancerous and cancerous lesions of cervix and RTIs among screened women in tribal area
- Identification of constraints will provide insights to plan strategies for effective model in tribal areas

Operationalization of Services for Selected Hemoglobinopathies in Dahanu Block of Palghar District

NIRRH, GRC and NIIH

Current Scenario

- Dahanu block: 402,095 population and 9 Primary health centres categorized as Tribal PHC
- Anemia is a major health problem in this area
- Hemoglobinopathy and allied hemolytic disorders do contribute significantly
- Sickle cell disease is widely prevalent, 1375 were carriers(61.8%) out of total 2222 screened and 151 were sufferers(6.7%)

(As per the data at SDH Dahanu 2011-2014)

Initiatives taken by Government: Sickle Cell Control Programme

- Screening general population (Target age group 1 to 30 years, Pregnant women, family members, Symptomatic individuals of all ages)
- Training of Medical officers & other paramedical staff at PHC, RH & DH
- Referring positive cases from Solubility positive samples for electrophoresis test to nearest Electrophoresis testing Centre
- Counselling carriers & sufferers for marriage and family planning & sufferers for importance of regular treatment.
- Providing Prophylactic & Symptomatic treatment at Primary Health Centre, Rural Hospitals & District Hospitals.

Way Forward

- There should be an access to quality care as well as social and genetic counselling support to ensure good reproductive health to have healthy children
- Implementation of appropriate prevention strategies is also important
- Hence, there is a need to develop integrated approach targeting Newborn screening, genetic counselling, carrier detection, prenatal diagnosis along with management
- No Government aided screening program for thalassemia & G6PD deficiency for tribal population
- Need to evaluate incidence of thalassemia, G6PD deficiency along with sickle cell anaemia

Objectives

1. To assess magnitude of selected genetic disorders by
 - a. *Antenatal screening for Sickle cell disease, Thalassemia*
 - b. *Newborn screening for Sickle cell disease, Thalassemia and Glucose-6-phosphate dehydrogenase deficiency*
2. To implement an intervention package consisting of training, infrastructure upgradation, community involvement and sensitization
3. To establish intersectoral linkages (PHC-Subcentre-SDH-MRHRU-Tertiary Government hospitals) for coordination and intrasectoral linkages (community-NGO-Panchayat raj) for referrals
4. To document process and outcome of this service model and dissemination of the findings among the health officials

Expected Outcome

- Prevalence of sickle cell disease, thalassemia and G6PD deficiency among antenatal mothers and newborn
- It will help in establishing a model centre for diagnosis and treatment of these common genetic conditions
- It will help in establishing Referral linkages at primary health centre level
- Strengthening of PHC & SDH for evaluation of iron deficiency anaemia and Hb electrophoresis

Prevention and management of snake bite envenomation including complications within primary health care system in tribal block of Dahanu

Background

- Snake bite envenoming is a major public health problem
- Huge gap between number of snake bite deaths reported from direct survey and hospital based data
- Only 7.23 % snake bite deaths were officially reported
- More than 75% of snake bite victims do not go to the government health facilities as they have a strong belief on traditional healers
Majumadar et al., 2014
- India has highest snakebite mortality : 45,000 to 50,000 per year
Lancet 2015
- 97% of snake bites mostly occurred in rural areas
- Annual snake bite deaths : Uttar Pradesh (8700), Andhra Pradesh (5200) Bihar (4500) **Maharashtra (3200)**
Mohapatra et al.,2011
- IMA-Maharashtra estimated 3000 to 4000 deaths per year and suggested to include snake bite cases under Notifiable disease' category
Mahasnacon 2014

Snake Bite Cases In Dahanu Block

Year	SDH Dahanu	PHC	April 2014- March 2015	April 2015- Feb.2016
2011-12	260	Sayvan	80	125
2012-13	253	Ganjad	99	90
2013-14	278	Chandranagar	04	02
2014-15	248	Chinchani	38	24
2015 (April to Dec)	198	Dhunalwadi	35	30
		Gholwad	87	65
		Ashagadh	86	95
		Aina	51	49
		Total	488	470

- There is underreporting of snake bite cases
- Majority of deaths due to snake bite envenomation are not reported

Retrospective analysis of snake bite cases admitted at Sub-District Hospital, Dahanu Jan 2014- Dec 2014

- Total number of patients admitted n= 145
- Male: 76, Female: 69
- Mean age in years (Mean \pm SD)
Male: 27.3 \pm 16.3
Female: 32.4 \pm 14.1
- The highest number of snake bite victims were in the age group of 21 to 40 years age (52%)
- 6 % snake bites in children < 10 year age
- Lower limbs were the most common site of bite (57%)

Observations

- Twenty patients were referred to tertiary centers for further management
- Five patients (3 Males and 2 females) died due to snake bite complications
- Out of five deaths, three were due to envenomation of Kobra and two were due to Viper
- Sufficient stock of ASV and neostigmine injections at Sub District Hospital Dahanu
- No training of health care providers on management of snake bite as per GOI guidelines
- Majority of cases referred from PHCs were due to the lack of experience in managing snake bite cases
- No standardised management protocol followed

Current scenario in management of snake bites in India

- Treatment quality is highly variable : Good quality to very poor
- High case fatality :
 - Non-availability of antsnake venom (ASV)
 - Delayed and inappropriate administration of ASV
 - Lack of standard protocol for management
 - Inexperienced doctors
 - Non availability of ventilator or bag and valve

Standard Treatment Guidelines



Standard Treatment Guidelines (STG 2016)

Government of India has developed Standard Treatment Guidelines (STG) covering :

- Clinical features
- Community interventions- first aid, transport, referral criteria
- Snakebite diagnostic features
- Treatment with and with antsnake venom
- Snakebite complications and snakebite management in primary, community/dispensary health care centers up to tertiary care including follow-up and rehabilitation of the snakebite victims
- The key objective of developing STG is to enable doctors at Primary Care Facilities or Basic Care Facilities to treat snake bite with confidence
- Cover all populations and age groups including pregnant women
- Do not cover detailed management of complications of snakebite such as hypotension, shock, dissemination intravascular coagulopathy, acute kidney injury, detailed ICU care
- The guidelines also do not cover management of chronic complications of snakebite

Objectives of the Study

Overall Objective

Implementation Research for piloting Standard Treatment Guidelines (STG, 2016) developed by Government of India for prevention and management of snake bites in Tribal block

Specific Objectives

1. To assess the magnitude and profile of snake bite envenoming in Dahanu block of Palghar district in Maharashtra state
2. To capacitate/ empower the health system for prevention and management of snake bite envenoming
3. To implement Standard Treatment Guidelines (STG, 2016) developed by Government of India for snake bite management at primary health care facilities
4. To study the impact of capacity building of primary health care system on reducing burden of snake bite envenoming

Expected Outcome

- The study will help us to generate the epidemiological data of snake bite envenomation in Dahanu block of Palghar district
- Baseline data on snake bite burden, disease profile and determinants of snake bite fatality
- Empowerment of primary health care workers and community
- This study will give technical and operational guidance for finalization of National snake bite management protocol relevance to public health system
- Experience of this research will be critical for adopting National Protocol with variation if required suitable for different geographic locations
- Generate evidence on feasibility of standard treatment guidelines for snake bite management at primary health care level
- Better management of snake bite at PHC, RH and SDH
- Reduction in burden of snake bite cases and case fatality

Acknowledgements

- RBMH Division, ICMR
- NIRTH, Jabalpur
- Maharashtra State Health Dept.

Financial Support to NIRRH:

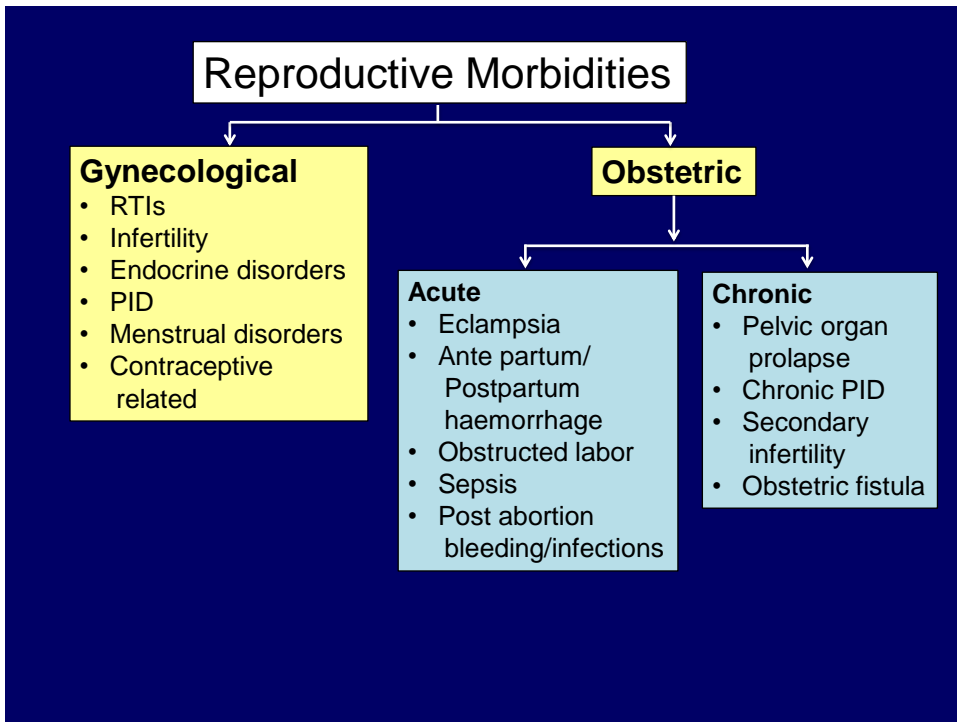
- DHR
- ICMR
- DBT (Indo-US Programme)
- Govt. of Maharashtra
- UNFPA
- WHO
- University of San Diego, USA

NIRRH Scientists:

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- Dr. Suchitra Surve
- Dr. Vrushali Palyekar

Participants of the various studies

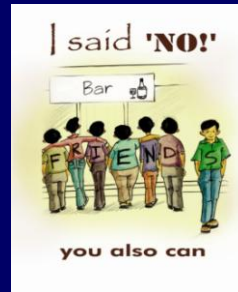
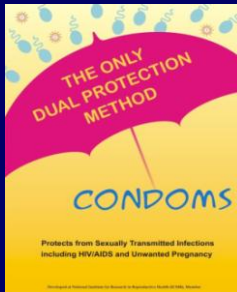
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Rationale

- Existing data suggests high incidence of snake bite cases in Dahanu
- High case fatality and morbidity due to complications of snake bite
- Government of India has developed Standard Treatment Guidelines for prevention and management of snake bites (STG,2016)
- The guidelines need to be piloted through MRHRU Dahanu
Collaboration of DMER, DHS & NIRRH-ICMR

IEC Material Developed by NIRRH



Posters and pamphlets developed by Govt. of Maharashtra adapted from NIRRH IEC material

