

Government of Goa

**CITIZEN CHARTER**  
**2008**

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**HEALTH INTELLIGENCE BUREAU  
DIRECTORATE OF HEALTH SERVICES  
GOA**

**FOREWORD**

Health care need of entire population necessitates involvement of Government private sectors as well as well as our enlighten citizen. While Government continues to play important role in providing primary and secondary as well as Tertiary healthy care. Now Private Sector plays an important role in providing Secondary and Tertiary health care. In order that the health care does not become a tool for exploitation of the vulnerable section, Government of India have taken measures such as Consumer Protection Act, and proposals for accreditation and creation of Citizen's Charter etc. are under consideration . The Consumer Protection Act seeks to provide better protection to the interest of the consumers and settlement of consumer disputes and matters connected therewith. As such, the health care providers in the country are now alert to the need of providing quality health care. Accreditation is a kind of star rating, as existing in the case of tourism industry, on the basis of their levels of service, efficiency as well as cleanliness. Thus accreditation involves the evaluation of health care facilities performance. The main aim of Citizen's Charter is to raise quality, extend accountability besides providing information, choice and redressal machinery. Under this scheme, the providers of public utility service will be invited to apply for Charter Mark – a special Logo that would signify that concerned institutions provide access to health care services at a given time, maintain proper records, respects the patients' right to privacy, dignity, religious and cultural beliefs, have proper medical equipments and standards of services, etc.

Equity of access to health facilities and securing a prominent place for health in the overall developmental framework is one of our major concerns. At the ground level a number of key issues need to be addressed-better management, more efficient administration, greater accountability and improved quality and performance of services in the health sector. Until recently the provider has dominated in the provision of health services. The focus now has to be on the user. Accordingly the charter sees the public services through the eyes of those who use them. I am sure the up-dated "Citizen's Charter" would contribute in a significant manner in bringing together the provider and the user for further improving the health care delivery system. Needless to mention that success of this charter would largely depend on the support and co-operation we receive from the users.

**Panaji- Goa**  
**IAS**  
**Dated: 10.06.09**  
**(Health)**

**(Sanjay K. Srivastava)**  
**Secretary**

## **Introduction**

Government of Goa has attained the goal of " Health For All" by the year 2000 A.D. through its various health and medical care programmes. Goa is therefore considered as one of the best performing states in the matter of health & medical care. Directorate of Health Services (DHS) has an important role in the provision and administration of health services and in order to raise the quality, extend accountability and deliver the services fairly, effectively and courteously, 'Citizen's Charter' for the Directorate of Health Services has been prepared. The charter seeks to provide a framework which enables our users to know:

(i) What services are available in the hospitals and other institutions under the Directorate (ii) The quality of services they are entitled to and (iii) The means through which complaints regarding denial or poor quality of service will be redressed. Thus, the essential principles behind the charter are to ensure transparency, public participation and accountability as also quality service, besides information, choice and redressal machinery wherever possible.

### **2 Health Structure & Services in Goa**

Goa has one of the most extensive health systems in India. The Directorate of Health Services has an important role to perform in the Administration as far as health system & services are concerned. The Directorate of Health Services primarily seeks to provide preventive, promotive, curative and rehabilitative health services to the people through primary health care approach which has been accepted as one of the main instruments of action for development of human resources, accelerating the socio-economic development and attaining improved quality of life. Primary health care is essential health care for all citizens, easily accessible and at a cost which the citizens and community can afford. In the rural areas services are provided through a network of integrated health and family welfare delivery system. The primary health care infrastructure has been developed as a three tier system - Sub-Centres, Primary Health Centres and Community Health Centres. Sub-Centre is the most peripheral contact point between the Primary Health Care System and the community and is manned generally by Multi-Purpose Health Workers (Male & Female) and a Peon/Attendant. Primary Health Centre is manned by a Medical Officer supported by para-medical and other staff. Some of the PHCs (13 in number) have attached hospitals ranging with 12 to 30 beds and are headed by a Health Officer.

The PHCs act as referral units for the sub-centres and provide preventive, promotive, curative and family welfare services. The

Community Health Centres (5 in number) are headed by a Health Officer generally with four specialist doctors and a minimum of 30 beds. It serves as a referral centre for PHCs. In addition, there are Rural Medical Dispensaries (RMDs 29 in number) in remote and inaccessible areas manned by a R.M.O. and a Pharmacist where regular OPDs are conducted. The Directorate of Health Services with its network of 5 CHCs, 19 PHCs (13 with attached hospitals), 172 Sub-Centres, 29 R.M.Ds, and one Medical Dispensary, provides basic health care services to the people of Goa particularly to those living in rural areas. The two District Hospitals viz. Hospicio Hospital, Margao in South Goa District and Asilo Hospital, Mapusa in North Goa District, and three other specialized/general hospitals viz. Leprosy Hospital, Macazana; T.B. Hospital, Margao; Cottage Hospital, Chicalim; under the Directorate also serve as referral Hospitals. There are in all 1162 beds in the hospitals under the Directorate of which 352 beds are attached to CHCs / PHCs. There are 18 Dental clinics and other special clinics for implementation of various programmes such as Family Welfare, T.B., NCD,STD,Malaria, Leprosy, Control of Blindness, etc. There are two Homeopathic Dispensaries (one attached to UHC, Panaji and the other attached to CHC, Pernem) and 5 Ayurveda Dispensaries (one each attached to District hospitals Mapusa and Margao, PHC Bicholim, CHC Canacona, CHC Curchorem, PHC Balli and PHC Quepem). There are 4 Urban Health Centres in the four major towns viz. Panaji, Margao, Vasco and Mapusa and one Medical Dispensary at Sada, Vasco and a STD Clinic at Baina, Vasco. The list of Hospitals, CHCs, PHCs and UHCs with sanctioned bed strength, no. of specialists / other doctors and nurses are given.

The Directorate and its peripheral units are responsible to issue NOC to parties/individuals who wish to set up an establishment. The concerned parties of the establishment have to submit an application in triplicate to the concerned Health Officer /Medical officer in –Charge of PHCs / CHCs / UHCs in their respective Jurisdiction.

Checklist to be submitted by the parties (establishment) for obtaining final NOC from DHS : Ownership documents , NOC from owner, clear site and location plan showing surrounding houses and their distance, flow chart, NOC from concerned municipal council/village panchayat, provisional registration certificate from Directorate of Industries, Trade & Commerce, Water Connection Bill, House Tax Receipt, NOC from neighbours within a radius of 25 metres, Partnership documents and the Application form duly filled-in.

Particulars of Items for which NOCs are issued by DHS : Bakery, Fabrication Repairs & Servicing of Vehicles, NOC for Three Phase Connection

Rice & Flour Mill, Potato Chips, Areca- Nuts, Ice Cream, Readymade Garments, Printing and & Stationery etc.

Particular of Items for which NOCs are issued by HO/MO at PHC/CHC level : Bar selling Liquors (IMFL), Tea & Coffees Stalls, Grocery, unit etc. Fees charged for various services offered /rendered to public by various subordinate officers/section and various hospitals under DHS is Rs 500/- at the municipalities level and Rs. 300/- at the village panchayat level.

### **3. Out Patient Departments (OPDs)**

- OPDs are conducted in all the Hospitals (except Leprosy Hospital, Macazana)UHC,CHCsPHCs, RMDs Medical Dispensary, Homeopathic & Ayurvedic Dispensaries & STD clinics and UHCs (except UHC Vasco & Mapusa) on all working days i.e. except Sundays and Public Holidays.
- The timing for OPD are 9.00 a.m. to 1.00 p.m. and 2.00 p.m. to 4.30 p.m. on Monday to Friday and 9.00 a.m. to 1.00 p.m. on Saturday except on Holiday.
- Weekly OPDs on fixed days are generally conducted in all the sub-centres.
- Each patient attending OPD will have to pay prescribed nominal registration fee for OPD paper except medico-legal cases and prisoners brought by police.
- OPD consultations, investigations and treatment are free in all the hospitals and other centres under the Directorate. However, in the two District Hospitals only for certain categories, investigations are charged as per the rates notified by the Government.
- Medical Certificates etc. are issued and charged as per the rates notified by the Government.
- Indoor Patient Departments (IPDs)
- IPDs are functioning in all Hospitals, CHCs, PHCs (except Colvale, Corlim, Chinchinim, Loutolim, Cortalim & Quepem).
- All patients who need hospitalization are admitted as in-patients.
- In-patient treatment in all Hospitals, CHCs, and PHCs is free.
- Free diet is also provided. In other Hospitals certain categories of patients will have to pay for accommodation, consultations, investigations, treatment, diet, etc. as per the rates notified by the Government.

- Every patient is given one Attendant Pass.
- Visitors are generally allowed during visiting hours only i.e. 4.00 pm to 6.00 pm

### 5. Specialized services

Services of specialized doctors (Consultants) are available in the district and other hospitals under the Directorate, details of which are given below:

<u>Hospital</u>	<u>Specialists in</u>
(1) Hospicio Hospital, Margao	Medicine, Surgery, Gynaecology, Pediatric orthopedic, ophthalmic, ENT, Psychiatry, Radiology, Pathology, Anaesthesia & Blood Bank
(2) Asilo Hospital, Mapusa	
(3) Cottage Hospital, Surgery, Medicine, Gynaecology & Chicalim Anesthesia	
(4) CHC, Pernem Surgery, Gynaecology & Anaesthesia.	
(5) CHC, Valpoi Medicine, Surgery, Gynaecology & Anaesthesia.	
(6) CHC, Curchorem Surgery, Gynaecology & Anaesthesia.	
(7) CHC, Canacona Medicine, Surgery, Gynaecology, Pediatric, ophthalmic, Anesthesia and Kidney Dialysis.	
(8) CHC, Ponda Medicine, Gyneacology, Aneathesia Surgery	

Diabetic Clinics:

Facility of Diabetic Clinics weekly has been provided at both District Hospitals. Every Tuesday at Asilo Hospital, Mapusa and every Friday at Hospicio Hospital, Margao

Vaccination Services:

Immunisation of children against seven preventable diseases viz. BCG, DPT, OPV, Measles, Hepatitis-B and recently MMR is administered to children of 15 months of age at all units of Directorate of Health Services. School Health Immunisation at 6 years, 10 years & 15 years is undertaken under school health services. Rubella Vaccine is recently being introduced to girl child more than 15 years of age upto 29 years of age (pre-marriage).

ARSH Clinics:

Teen Clinics are run by all CHC, PHCs once a week on Adolescent Reproductive & Sexual Health Services.

Vision Centres :

**Vision Centres have been established at Primary Health Centre Sanguem and Community Health Centre Ponda.**

**6. Drug Detoxification Centres**

**There are two Drug-detoxification centres each at District hospital, viz. Asilo Hospital, Mapusa and Hospicio Hospital, Margao having 10 beds each. These centres promptly treat drug-addicted and alcoholic patients and problem of drug-abuse is dealt with systematically by rendering detoxification services at these centres. In addition, NGOs are also involved to participate to curb the problem to a great extent.**

**7. Radiological Facilities**

**Under the Directorate of Health Services, X-ray facilities are available in the following institutions/centres.**

- a. Hospicio Hospital, Margao
- b. Asilo Hospital, Mapusa,
- c. T.B. Hospital, Margao,
- d. Cottage Hospital, Chicalim,
- e. Primary Health Centre Sanquelim,
- f. Community Health Centre Pernem
- g. Community Health Centre Valpoi
- h. Community Health Centre Curchorem
- i. Community Health Centre Canacona
- j. District Tuberculosis Centre, Panaji.
- k. Primary Health Centre Cansarvarnem
- l. Primary Health Centre Bicholim
- m. Primary Health Centre Sanguem
- n. Primary Health Centre Aldona
- o. Primary Health Centre Marcaim

**Specialized Radiological procedures namely barium swallows/ enemas/ meals and IVP etc. along with ultra sonography facilities are available at the district hospitals.**

**8. Laboratory Services**

- **In all the Hospitals, CHCs, PHCs and UHCs laboratory services are available for conducting routine investigations.**
- **Lab. facilities are available only on working days from 9.00 a.m. to 1.00 p.m. and 2.00 p.m. to 4.30 p.m.**
- **Reliability and promptness of laboratory results are ensured due to auto-analyzers, electrotpe analyzers provided.**
- **In Asilo and Hospicio Hospitals, facilities of biochemistry investigations are available.**
- **Malaria testing facilities are available, besides PHCs/CHCs/Hospitals, at Malaria Clinic at Head Quarter (DHS), Campal, Panaji and at Malaria Clinic, Porvorim, Bardez.**

9. Cardiac Monitoring

ECG facilities are available at the District Hospitals viz Asilo Hospital, Mapusa & Hospicio Hospital, Margao which are provided with Intensive Coronary units for cardiac monitoring. Mobile Vans are provided to District Hospitals. Besides, ECG machines are provided to all Primary Health Centres.

10. Casualty and Emergency Services

- Casualty and emergency services are attended round the clock on all days in all the hospitals, CHCs, and PHCs with attached beds.
- Prompt services of Duty Doctors are available 24 hours on all days at hospitals.
- Services of specialized doctors are available on call in such of the hospitals where they are provided. The decision to call a specialist is that of the duty doctor.
- Failure to respond to a call is monitored by the Medical Superintendent/H.O. in-charge of the hospital.
- Patients requiring specialized investigations/treatment are referred to the nearest CHC/District Hospital/Goa Medical College depending on the case, after providing proper medical aid within the scope of the equipments and the facilities available at Health Centre / Hospital.
- In all emergency cases, standard of care, which include screening of the patient, stabilizing the patient's condition and transfer or discharge of the patient for better treatment is done.
- In serious cases, treatment/management of patients gets priority over paper work like registration and medico legal requirements. The decision rests with the Duty Doctor.

11. Ambulance Services

The ambulance means a vehicle, which carry the Patients from one centre to other. In the ambulance, stretcher, first Aids Box, I-V Set, hook and cylinder stand are available.

- All the Hospitals, CHCs and PHCs have been provided ambulances, to tackle emergency situation.
- Private parties/institutions requiring ambulance for medical cover will be charged Rs.4/- per km and the minimum charges will be Rs.200/-.( Institution/Hospital wise ambulance available is given in the Annexure-IV).

**12. Blood Banks**

There are two blood banks under the Directorate of Health services one attached to Hospicio Hospital, Margao and the other attached to Asilo Hospital, Mapusa. Both these banks are licensed and meet the requirements of the patients. DHS provides Blood for needy persons.

- These Blood Banks have been provided with Rapid ELISA test kits for release of safe blood for emergencies.
- Blood is released for transfusion only after screening for HIV, Hepatitis-B, Hepatitis-C, VDRL and Malaria parasite, which is mandatory.
- Public are requested to donate blood voluntarily and get one self registered in the blood donors directory so that one may be called for emergencies.
- Blood donation camps are being organized with the assistance of N.G.Os.
- The address and contact phone Nos of Blood Banks attached to district hospitals under DHS are given below.

<b>Blood Banks</b>	<b>Phone Nos .</b>
A) Hospicio Hospital, Margao	2703801
B) Asilo Hospital, Mapusa	2262372

**Facilities of Integrated Counselling and Testing Centre:**

These facilities are provided to both District Hospitals and all CHCs and PHC Candolim.

EMRI 108

From 5<sup>th</sup> September, 2008 EMRI has been introduced in Goa to cater to all emergencies in the State. 18 such ambulances run all over Goa with average timing to reach at emergency site being 18-20 minutes.

Screening : Mobile Health Camps under NRHM

Two Mobile Vans No. GA-01-G-2023 for South District and No. GA-01-G-2022 for North District have been procured to hold the Camps to reach to rural people. These mobile vans are having facility of ECG, X-Ray, Ultrasound and Blood Investigations. Reports are given immediately at the Site. Besides, IEC activities are also undertaken by this mobile team . These mobile vans will be moving to rural areas under all eleven talukas to examine the patients, necessary advice and referral to secondary and tertiary and super specialty hospitals. Patient will also be followed-up.

Public Private Partnership (PPP)

- Neonatal screening test is being undertaken of all babies born in Government hospitals since June, 2008 to detect inborn errors of metabolism to have prompt action as regards to special diet to be recommended for babies born with IEM, so that further health consequences are minimized. This project is undertaken in collaboration with Neogen Labs.
- Since 20/09/2008, Diabetic Detection Camps are being organized at all Primary Health Centres levels where blood sugar as well as Glycosylated Hemoglobin tests are being undertaken with a objective of preventing the disease at primary level by bringing about change in life-style of people. This project is undertaken Novo-Nordisk Education Foundation.
- Breast Cancer Studies are being undertaken in Goa under the following Committee:
  - Director of Health Services .... Chairman
  - Dr. Shekhar S. Salkar, Oncologist, Manipal Hospital .... Vice Chairman
  - Dr R. Badwe, Chief of Oncology Dept, Tata Memorial Hospital, Mumbai .... Member
  - Rajan Dixit, Bio-Statistician, Tata Memorial Hospital, Mumbai .... Member
  - Prof. & Head of Dept of PSM, Goa Medical College & Hospital, Bambolim ... Member
  - Members of NGO, Muskan. .... Member
  - Chief Medical Officer, State Family Welfare Bureau.... Convenor
 Screening will be done in Mobile Van having Mammography facility and will be moving to each Primary Health Centres.
- Mental Health Clinics have been set up at all 19 Primary Health Centres to detect mental diseases at primary stage. This project is undertaken in collaboration with NGO, Sangath wherein counselors screen the OPD patients.
- Pap-Smear Examination is also undertaken by all Primary Health Centres in collaboration with Goa Medical College for early detection of Carcinoma cervix in female population with specific complaint. This is carried on regular basis.

### **13. Mediclaim Scheme**

An unique scheme of "Mediclaim" has been introduced in Goa since 1989. Under this scheme, financial assistance to the maximum extent of Rs. 1.50 lakhs per illness is provided for availing super specialties which are not available under the State Government hospitals, to residents of Goa, who have been staying in Goa for a minimum period of 15 years, and whose annual house hold income is less than Rs. 1,50,000/- per annum.

Kinds of Medical treatment covered are (i) Neurological Disorders; (ii) Cardio-Thoracic Surgery; (iii) Kidney transplantation; (iv) Plastic Surgery; (v) Radiotherapy ; (vi) total Replacement of Joints ; (vii) any other major diseases/illness.

In order to avail this facility, the concerned person/individual has to apply to the Director of Health Services, Panaji, Goa in the prescribed Form C & D (Annexure VII & VIII) enclosing there with :

- (i) Passport size recent photograph of the patient on Form 'C' or 'D' ;
- (ii) Photo copy of election card of the patient. If the patient is a minor, photo copy of election card of either of the parent ;
- (iii) Medical Certificate in Form -A (Annexure V) from the Medical Superintendent, Goa Medical College, Bambolim, indicating that the patient is referred to some other recognized Hospital since the facilities are not available at Goa Medical College ;
- (iv) Income certificate in Form-B (Annexure VI) from the concerned Mamlatdar.

Mediclaim Certificate will be issued by the Medical Superintendent, Goa Medical College (GMC), Bambolim on the recommendation of the concerned Unit Head of the Department of GMC or the Sr. Consultant of District Hospitals either at Mapusa or Margao attached to the Directorate of Health Services after ascertaining that the particular case cannot be treated at the

Government Hospital in the State of Goa including GMC. Based on this certificate, Director of Health Services, Panaji-Goa will issue a letter authorising the concerned Hospital to render required Medical treatment to the said patient for the relevant procedure within the monetary limit specified in the said authority letter under Goa Mediclaim Scheme.

In case any patient has gone to recognized institute outside Goa for treatment which is not available in Government Hospitals in Goa, without

Mediclaime Certificate, he shall apply directly to the Director of Health Services, Panaji, Goa along with relevant documents/papers. The amount of Mediclaime facility is up to Rs.3.00 lakhs in case of open Heart Surgery; Kidney transplants, Nuero Surgery including medicines for post operative care. However maximum limit for Cancer is up to Rs. 5.00 lakh and Rs. 8.00 lakh for Bone Marrow transplant disease.

The patients can avail the super speciality Medical treatment under this scheme in any of the following recognized hospitals in Goa State or outside Goa State.

For the patient taking treatment in Goa Medical College for Cancer / Total Hip / Knee replacement, the cost of drugs/medicines, chemotherapy is reimbursable to the patient up to the maximum extent of 60 per cent of the amount admissible, for the relevant procedure, under the Goa Mediclaime Scheme.

### **In the State of Goa**

1. Salgaonker Medical Research Centre, Vasco.
2. Chodankar Nursing Home, Porvorim.
3. Saida MRI Scan Centre, Bambolim.
4. Om Urology Centre, Panaji.
5. Apollo Nusi Hospital, Cuncolim.
6. Apollo Victor Hospital, Margao.
7. Goa Manipal Cancer & General Hospital & research Centre, Dona Paula.
8. Gomantak Ayurveda Mahavidyalaya, Shiroda.
9. Grace Intensive Cardiac Care Centre, Margao.
10. Vrundavan Hospital, Mapusa.
11. Campal Cilnic, Panaji.
12. Vivus SMRC Heart Centre, Chicalim.
13. Usgaonkar Hospital, Ponda.
14. Gauns Child Care, Mapusa.

### **Outside the Goa State**

15. K.L.E.S. Hospital, Belgaum.
16. Kasturbha Hospital, Manipal.
17. Wockhardt Hospital, Bangalore.
18. Jaslok Hospital, Mumbai
19. Tata Memorial Centre, Mumbai.
20. Wanless Hospital, Miraj.
21. Swasthiy Prathistan Fracture & Orthopaedic Hospital, Miraj.
22. R. G. Stone Clinic, Mumbai.

23. Ruby Hall Clinic of Great Medical Foundation, Pune.
24. Madras Medical Mission, Chennai.
25. K.E.M. Hospital, Mumbai.
26. P.D. Hinduja Hospital, Mumbai.
27. Wadia Hospital, Mumbai.
28. J.J.Hospital, Mumbai.
29. Sion Hospital, Mumbai.
30. Apple Hospital, Kolhapur.
31. Sagar Apollo Hospital Bangalore.
32. Manipal Hospital, Bangalore.
33. Bombay Hospital & Medical Research Centre, Mumbai.
34. Johari Nursing Home, Mumbai.
35. Wockhardt Hospital, Mumbai.
36. Children Orthopaedic, Mumbai.
37. Shankara Netralaya Hospital, Chennai.

Government of Goa has tie-up for credit facilities with the hospitals listed at sr. nos. (1) to (23) and (37) above, so that patients need not pay the hospital authority and the hospital authorities will directly submit the bills to the Directorate of Health Services, Panaji, Goa for settlement to the tune of Rs. 1,50,000/- or actual, whichever is the lower. In case, the patients opt to go to the hospital listed at Sr. No. 24 to 36, they have to pay first to the hospital authorities and then submit the bills duly countersigned by the concerned hospital authorities to the Director of Health Services, Panaji, Goa for reimbursement. However, such patients before proceeding for necessary Medical treatment should invariably obtain the letter of authority in Form-E (Annexure IX) from the Directorate of Health Services, Panaji, Goa. The Specimen Forms are appended as **Annexures V,VI, VII,VIII and IX..**

#### **14. Goa State Illness Assistance Society**

Goa State Illness Assistance Society provides financial assistance to the extent of Rs. 1.50 lakhs per illness to patient below poverty line as prescribed below, for availing super facility which is not available in the state

Government Hospitals. The patient can avail the super specialties only in the recognized hospitals under the Scheme and the patient should obtain the letter of authority from the Member Secretary, Goa State illness Assistance Society (DHS) before proceeding for the treatment.

- (i). Rural Families limit raised upto Rs. 25,000- per annum with effect from 29/5/2008.
- (ii) Urban Families limit raised upto Rs. 60,000/- per annum with effect from 29/5/2008.

### **Non Communicable Disease Cell:**

#### **A) Goals**

Recent surveys and statistics showed an alarming increase in Hypertension, Diabetes Ischemic Heart Disease, Cardiovascular Disease, Cancer etc all leading to a high morbidity & mortality. The spurt in these cases is mainly attributed to the stressful life and change in lifestyle like food habits and a sedentary and affluent life.

This cell aims to develop overall integrated programme for the prevention, early detection and management of lifestyle disorders and other non communicable diseases, as a part of primary health care, to bring down the morbidity and mortality, and thus to promote health in general for better productivity, and directly to promote financial savings in health care costs in terms of decreased Angioplasties, CABGs, Amputations, renal transplants etc and indirectly in terms of loss of man days

#### **B) Objectives:**

- To identify early indicators for cardiac and other metabolic diseases so as to have early intervention and prevent complications arising from these diseases
- To strengthen intensive coronary care units at district hospitals for management of cardiovascular diseases, with central oxygen supply and 24 hours monitoring.
- To strengthen intensive care units at district hospitals for management of pulmonary circulatory diseases and occupational or work related pollution hazard, with central oxygen, infusion pumps, nebulizers, spirometers.
- Training and advancement of personnel delivering specialty treatment is under consideration of Govt.

- To bring awareness about life-style disorders including alcohol, drug abuse and smoking. Adult education, informative booklets, and media campaign for the prevention of alcohol and drug abuse in vernacular languages will be undertaken by National Service Scheme (NSS) volunteers, and Youth Red cross (YRC) volunteers of XI and XII standard students. Kripa foundation NGO is already working in this direction of smoking cessation clinics, strict implementation of anti-smoking act, Act to prevent production of spurious liquor, revision of views on country liquor by graded taxation.
- To strengthen surveillance programme with the help of PHC Medical Officers.
- As schools are ideal medium of intervention, strengthening of school health activities comprising of eye care, dental care and detection of congenital cardiac anomalies, maintenance of hygiene by active school health education with the help of PHC Medical Officers and PHC public health dentist. “Adopt one School” scheme has been launched in Mormugao by IMA Doctors and nurses of TNAI (Trained Nurse Association of India) to detect and prevent obesity in children studying in convent schools (KG to XII).
- Management of micronutrient/ nutritional deficiencies coupled with nutrition education: -
  - Promotion of micronutrients in balanced diet
  - Fortification of common salt with iodine in collaboration with Industries Dept.
  - Mid-day meal provision to children with the help of Education Dept. and Women and Child Development Dept.
  - Discouraging salted items like chips.
  - Promoting of whole grain chapattis brown bread.
  - To promote Goa beans which are superior to even Soyabeans. (Soyabeans have high gamma tocoferrol levels). As per recent reports gamma tocoferrol increases risk to chronic diseases.
  - Promotion of tender coconut water.
  - Discouraging pickles, coloured Dahl, soft drinks

- Promotion of indigenous oil like groundnut and sesame and even canola. Use of coconut oil to be restricted.
- Promotion of vegetable food at least 400 gm/day.
- To promote local fruit consumption viz. jackfruit, jamun, jagmas etc.
- To promote local vegetable consumption viz. drumstick leaves, curry leaves
- Stress management and spiritual health services for management of stress and obesity by promoting yoga, meditation etc. Siddha Samadhi Yoga (SSY) is already working in this direction
- To take up pilot project for cardiovascular disease in Goa Medical College.
- Provision of counseling services to special clinics at district hospitals.
- IEC

### C) Non Communicable Disease Statistics

Mortality Rates	1995	1999	Morbidity Rates Jan 08 - Sep 08
IHD	1180	1376	775
Diabetes	94	234	3066
Hypertension	31	275	9481
CVA	872	653	228

Incidence of Breast Cancer in Goa is 250 cases per year i.e. 40 per 1 lakh female population.

#### Strategies Implemented:

- ✓ NRHM mobile camps are being held in all the remote areas under the various PHCs for screening of public for hypertension, cancers and other diseases.
- ✓ Special diabetic mobile camps are being held at all the PHCs to try and ascertain the diabetic load in Goa. This is being conducted by the company Novo Nordisk.  
Weekly diabetic clinics are set up at both district hospitals.
- ✓ State/District Task Force for Tobacco Control has been set up in the state for implementation of the Tobacco control act 2003.

Strategies to be implemented :

1. Training Programmes: Training in hypertension and diabetes will be held for Medical Officer in five batches of 30 each.
2. Sensitization workshops for private practitioners in 11 talukas
3. One day training for supervisory staff (PHN/LHV/Ext. Educators) 2 batches and one day training for ANMs and field workers
4. Printing of IEC material
5. Monitoring and supervision
6. Mobile NRHM camps at all the PHCs at least twice a year
7. Diabetic screening camps at PHC level
8. Mammography camps
9. Pap's smear screening camps

Tobacco cessation clinics are to be set up in the district hospitals to offer counseling services to the smokers.

The Tobacco Cell which will be under a focal point of the District level identified by the State Government will be supported by psychologist/Social Worker/Data Entry Operator/Programme Assistant.

**Setting up of State Tobacco Control Cells**

It is proposed to build the capacity of the states in the effective enforcement of the Anti tobacco Act and also to coordinate/member to facilitate/drive the process as also to monitor the proposed District Tobacco Control Programme. The establishment of State Tobacco Coordination is expected to facilitate and drive the process as also monitor the proposed District Tobacco Control Programme. The Nodal Officer at the State Level will be responsible for the overall coordination, monitoring and evaluation of the Programme at the district level.

Mobile Medical Unit with facilities for Blood investigation and Radiological diagnostics:

The Directorate of Health Services has acquired two mobile medical units with the following services:

1. General check up,
2. Laboratory investigations,
3. USG,
4. X- ray facilities,
5. Health Education

The health services have reached the interiors of Goa through the mobile medical units by holding camps which have provided great benefit to the local community who are otherwise inaccessible. There is a great response from the rural masses for these camps.

During the last 12 months, 56 camps were held & over 20,000 patients were screened and treated by the consultants of various faculties. On an average in each camp, sixty blood investigations, fifteen to twenty x-rays, fifteen to twenty ECGs and ten to fifteen sonographic studies were conducted during these camps.

New Born Screening:

A scheme has been introduced by the Govt. of Goa to screen all newborns delivered in the Govt. hospitals for any inborn errors of metabolism.

This year till Jan.08, 5181 babies have been screened. Some of the cases detected were urea cycle disorder, amino acid disorder, hypothyroidism & cystic fibrosis .

Diabetes Detection Camps:

The Govt. of Goa has taken the initiative to launch Diabetes Control program in collaboration with Novo Nordisk.

The inauguration of this program was held at GMC on 19th Sep.08. Diabetes detection camps are held at various places with the help of the mobile vans. **Camps Held till Jan.08: 105**

Emergency Management & Research Institute (EMRI):

Emergency Medical Ambulance scheme was launched in the state of Goa on 5th Sep.08. Emergency Management & Research Institute Report till 30/12/08.

<b>CALL TYPES</b>	<b>Emergency Calls</b>	<b>11250</b>
	<b>Enquiry</b>	<b>1330</b>
	<b>Others</b>	<b>50745</b>
	<b>Total</b>	<b>63325</b>
<b>DISPATCHES</b>	<b>Medical</b>	<b>6836</b>
	<b>Police</b>	<b>999</b>
	<b>Fire</b>	<b>159</b>
	<b>Total</b>	<b>7994</b>

**Lives saved in extremely critical conditions: 150**

## **Diabetic Registry:**

Achieved so far :

- **Blood sugar checking**
  - A total of 13250 people have been checked
- **HbA1c**
  - 2340 HbA1c tests have been done
- **Means that about 17.66% people with diabetes have visited our camps**
- **Baseline data collected:**
  - Location, age, sex, DOB, duration of diabetes, medication, family history, marital status, smoking, alcohol consumption, exercise, economic status, educational qualification
- **105 camps have been conducted covering entire Goa**
- **Althea Foster's foot care workshop was conducted at Goa Medical College and Directorate of Health Services**

Cancer Registry :

**Inaugurated on 2nd January 2009.**

**Core Committee for Breast Cancer Study in Goa has been constituted.**

**Action Plans prepared to undertake**

- **Case studies on Breast Cancer**
- **Cohort studies on risk factors and the survival rates**

**The staff for Cancer Registry has already been identified and trained at Tata Memorial Hospital, Mumbai.**

**Environmental & Pollution Control Wing**

- **The Environmental & Pollution Control Wing Laboratory of this Directorate located at the head office at Campal provides the facilities to the public, industries, Government agencies & institutions for analyzing samples of water, industrial effluents, sewage etc. for Physico-Chemical and Biological Paramertre..**
- **The water samples sent by the Health Centres are also analyzed for portability.**
- **The laboratory functions on all working days from 9.30 a.m. to 5.45 p.m. with 1.15 p.m. to 2.00 p.m. lunch break.**

- **The various tests are charged as per the government approved rates.**

- The contact phone No. of the environmental & Pollution control wing is 2227978.

#### **16. Dental Services**

Under the Directorate of Health Services, there are 18 dental clinics attached to CHCs at Pernem, Valpoi, Curchorem, Canacona and PHCs at Sanquelim, Candolim, Aldona, Betki, Sanguem, Bali, Cansaulim, Curtorim, Bicholim and UHCs at Panaji, Margao Hospicio, Mapusa (functioning at Asilo Hospital ) respectively and Vasco (functioning at Cottage Hospital, Chicalim )for providing promotive, preventive and curative dental care to the people. School children are also examined periodically under this programme.

#### **17. Standard of Service**

- Medical care is provided to all the patients who come to the hospitals for treatment.
  - While we endeavor to provide quality care to all our patients, standards of services are at times affected by patients load, availability of doctors and other supporting staff, requisite facilities, drugs, equipments, ambulances, financial and other constraints. Yet, we strive to provide to all our users courteous and prompt service within our limited scope at different levels.
1. The Medical Store Depot supplies Drugs, which includes Allopathic, Ayurvedic & Homeopathic and Surgical items including Chemicals and reagents to all RMDS, PHC'S, CHC's and district hospitals under Directorate of Health Services. It also supplies Machinery and Equipment.
  2. All the life saving and essential drugs are continuously made available to all the hospitals, PHC's and CHC's under Directorate of Health Services as per their requirements by direct purchase from Government of Goa undertaking, Government of India undertaking, or by floating Public Tenders and on Rate Contract.
  3. The Procedure for supply starts with the indents which are received from all the peripheral units and district hospitals. Their indents are received in the month of March -April by Medical Store Depot.

4. Scrutinizing of these indents, is carried out which is based on the annual requirements, the past consumption, & stock in hand at Medical Store depot.
5. After Scrutinizing and compiling of indents by the Store keepers , list is prepared to be included in the Public Tender. One drug of each category is considered. The Public tender notice consist of conditions that are approved by the Government. After that the Tender Notice is advertised through local papers and national papers and time limit of 45 days is given to tenderers to participate. Quotations in two bid system i.e Technical and financial Bid, are invited.
6. The tender is opened in the presence of Common Purchase Committee constituted by the Government. Tenderers who satisfy the conditions of technical bids are taken into consideration and their Financial bids are opened by the committee. In case of Machinery & Equipment tenderers are also asked to demonstrate their machinery to the concerned doctors along with committee members, fulfilling which, their financial bids are opened.

The Comparative Statement of the same is plotted and the lowest among them is selected.

In case of Materials and Supplies, the Head of the station i.e the Director of Health Services has the powers to approve the items for which single Quotation or less than 3 Quotations are received. But in case of Machinery and Equipment orders are placed only after obtaining Government approval for the same.

There are provisions to float limited tenders within Rs. 2 lakhs to avoid shortages of drugs and to meet urgent requirements. For items which are not available with Government undertakings, direct purchase within Rs.1000 is also made.

Policy of Stocking :- Senior Store keeper places a requisition for the items required by her to be supplied to all centres, & hospital, keeping in mind a stock of minimum 6 months in order to avoid shortages. Some of the items like I. V fluids are supplied directly to centres and hospitals as per their requirement, to keep minimum inventory and because of

constraints of storage space in the Stores and also some orders are placed with the suppliers to whom the tender is awarded to be supplied in installments at a interval of one or two months which is decided by the Senior Store keeper due to space shortage.

The stock of all the items are checked by Junior and Senior Store Keepers and it is made sure that the incoming drugs etc has at least  $\frac{3}{4}$  of shelf life . All the vaccines are maintained in cold chain. The stocks of medicines are continuously checked by Junior and Senior Store keeper for expiry date, and supplied to all centres and hospitals first in first out (FIFO) and first expiry first out (FEFO).

The department also keeps record of expiry of the warranty /guarantee period of items of Machinery & equipments after which the Annual Maintenance Contracts are drawn up, with supply parties to ensure trouble free working of the Machinery.

# NATIONAL PROGRAMMES

## RCH –II PROGRAMME IN GOA

### JANANI SURAKSHA YOJANA

Janani Suraksha Yojana is a scheme implemented by the Government of India in 2002 wherein married women above 18 years of age can avail of monetary benefit i.e. 700 for rural and 600 for urban area if they belong to the BPL family or any women of the SC/ST community irrespective of their income, for the first two live births. For the year 2008-2009 till date, 269 women have availed of this benefit.

### RCH OUTREACH CAMP

Outreach camps in RCH are being held in all peripheral units wherein the local people are enlightened on the services provided under the RCH programme for eg. family planning services. IEC team from State Family Welfare Bureau conducts IEC Camps every week at all the peripheral units.

### VILLAGE HEALTH AND NUTRITION DAY

Village health and Nutrition day are held in all anganwadis once a month. Here nutritional advice and various health talks related to maternal & child health are delivered to the mothers who accompany the children.

### FAMILY PLANNING

In order to address the unmet needs of contraception, IEC activities are strengthened and promotion of various contraceptive methods for spacing as well as permanent sterilization are undertaken, including the role of emergency contraceptive pill which is used as an 'emergency' measure to prevent pregnancy in an event following unprotected sex.

Our achievements for the last three years:

Methods used	2005-06	2006-07	2007-08	2008-09 upto July 31 <sup>st</sup>
Sterilization	5351 – 91 %	5325 – 95 %	5066 – 87 %	1818 – 37 %
C.C. users	8357 – 83 %	10158 – 110 %	11328 – 98 %	3767 – 42%
O.P. users	3157 – 71 %	3339 – 83 %	3429 – 79 %	1205 – 36 %
IUD Insertion	2819 – 88%	2539 – 84%	2617 – 84%	908 – 32 %

Sterilization services are held every week at PHC Bicholim & CHC Valpoi on Wednesday and on Monday at PHC Madkai & CHC Pernem

Laparoscopic camps are held on Wednesday at CHC Curchorem , on every 3<sup>rd</sup> Thursday of the month at PHC Bicholim, every Friday at Asilo Hospital Mapusa. Camps are also held at Hospicio Hospital Margao at Cottage Hospital Chicalim and CHC Ponda. Surgeons are available to conduct NSV at CHC Ponda, Hospicio Hospital Margao and at Asilo Hospital Mapusa on specified days.

#### PC & PNDT Act

Effective implementation of the PC & PNDT Act is undertaken in the State of Goa. A State Supervisory board headed by Hon'ble Minister for Health supervises the implementation at State level & regular meetings are held at four months interval. The district magistrates both North & South have been appointed as the district level Appropriate Authorities for both North & south Goa districts respectively. There are 132 ultrasonography clinics registered in the state of Goa.

#### ADOLESCENT REPRODUCTIVE & SEXUAL HEALTH

'Adolescent Reproductive & Sexual Health Program' (ARSH) is a significant component of RCH II. OPDs are being conducted in all peripheral units on a fixed day of the week wherein the adolescents can avail of counseling as well as treatment facilities.

IEC activities including awareness sessions on the Adolescent Reproductive and Sexual Health Program and Adolescent Health Problems and Issues are being carried out at the health centres as well as schools. A facility survey of adolescent health clinics is being undertaken to assess the quality of services provided in there. A play stressing on Adolescent Health Issues was recorded which will be broadcasted on the radio.

In addition adolescent health camps have been held at PHC Madcaim as well as PHC Curchorem.

#### MNGO

Under the MNGO schemes two MNGOs namely Bharateeya Sanskriti Prabhodhini, Shiroda-Goa for North Goa and Sangath Society for south Goa have been identified to undertake various activities in the unserved/underserved areas in these two districts.

#### UNIVERSAL IMMUNIZATION PROGRAMME

In Goa the universal immunization programme was introduced in the year 1985-86 as part of national health policy. The child immunisation rate is very high as the individual is immunized at birth with BCG, OPV & Hep-B in an institutional delivery followed by three doses of DPT, OPV & two doses of Hep-B in infancy, a booster dose of DPT & OPV at 1 ½ year and DT at 5 years, TT at 10 and 16 years. During the first pregnancy the mother-to-be receives two doses of tetanus toxoid. If the second pregnancy occurs within the first 3years she receives one booster dose. In addition to the above mothers are also provided with iron folic acid tablets to be taken throughout pregnancy to lower the incidence of anemia among pregnant women. The literacy rate in Goa being high, the people avail of the facility of TT immunisation after an injury.

In addition to the routine immunization sessions, outreach sessions of immunisation are conducted by all the peripheral units on first Saturday of every month wherein a team of health professionals go to underserved areas and conduct immunisation sessions.

Vaccine	2005-06	2006-2007	2007-2008	2008-2009 upto July 31 <sup>st</sup>
TT [PW]	25826	23697	24323	7282
BCG	28221	28536	27549	9391
POLIO	25903	24253	23799	7605
DPT	25821	24238	23768	7593
MEASLES	23543	23018	23355	7316
DPT (Booster)	23567	23187	22536	7245
OPV (Booster)	23567	23152	22534	7249
DT-5	24417	24511	25580	7475
TT-10	23737	24114	25165	6906
T.T.-16	19685	20029	19920	5951
Iron Folic Acid (PW) distributed	35959	21084	26230	3530
MMR	-	-	-	2487
Rubella	-	-	-	10289

WHO conducted a Maternal & Neonatal Tetanus Elimination (MNTE) survey in the North Goa district for three days. There were no neonatal deaths detected due to tetanus.

Section 5 Goa Children's Act 2003 deals with Health and Nutrition and prescribes the mandatory/compulsory/vaccination with MMR vaccine to children, Rubella Vaccine in adolescent girls and Hepatitis B vaccine in infancy.

Since both MMR and Rubella vaccines are not included in the immunization programme under Government of India, the Government of Goa launched these vaccines on 6<sup>th</sup> May 2008 at the hands of the Hon'ble Health Minister.

MMR vaccine is administered to children at the age of 15 months to boost the immunity against measles, mumps and rubella. Measles vaccine is administered as per the immunization schedule to children at 9 months of age. Administration of MMR will reinforce the immunity provided by measles vaccine as well as give added protection against rubella which causes birth defects in babies born to mothers who suffer an episode of rubella during pregnancy if not immunized earlier.

Rubella Vaccine is to be given to adolescent girls.

**The total beneficiaries for the year 2008-09 are as follows:**

MMR vaccine - 23,000

Rubella Vaccine - 1, 48,000 (Estimated no. of adolescent girls in the age group 10-19 years)

**Till July Achievements:**

10,289 girls - Rubella

2,487 infants – MMR

National Vector Borne Diseases Control Programme

The National Vector borne Diseases Control Programme deals with vector borne diseases namely Malaria, Filariasis, Japanese Encephalitis, Chikungunya and Dengue Fever prevalent in Goa.

### **Malaria**

Malaria problem in Goa is predominantly due to the construction activity, cases occurring all round the year. The construction sites offer favourable breeding ground for mosquitoes and there is the presence of parasite in

migrant workers coming from malaria endemic states. Anti malaria activities being performed by the programme include – Early Detection and Prompt Treatment (EDPT) of cases. Integrated Vector Control

measures, Behaviour change communication strategies, capacity building and enforcement of provisions of Public Health Act.

EDPT is performed through active, passive, mass and contact parasitic surveillance. The blood of the patients is screened for malaria parasites by preparing the blood smears on the glass slides. Also Rapid Diagnostic kits for Plasmodium Falciparum are introduced in all the Health Centres/Hospitals for prompt detection of falciparum cases. The delay in approaching the physician to take necessary treatment may result in complications and death due to P.falciparum. After confirmation of every malaria positive case, he/she is given radical treatment with appropriate medicines depending on the type of malaria detected. The facilities for detection/treatment of malaria are available at all the health centres/hospitals at the periphery.

**In case of any type of fever:**

Get the blood examined for malaria at the nearest Health Centre and thus ensure early detection and prompt treatment.

Take all the medicines administered and complete the course for complete cure.

Prevent creation of new potential mosquito breeding sites and eliminate existing ones by i) installation of mosquito proof overhead water storage tank/sump ii) observing dry day once a week for open cement tanks, iron drums, water containers etc iii) avoiding water stagnation in and around the premises in any form and iv) removing/destroying tyres, coconut shells, bottles and other discarded utensils/material.

Prevent mosquito contact/bite by screening doors/windows, and by using repellants, proper clothing and using mosquito bed nets during sleep at night. Pregnant women and children should use insecticide treated mosquito nets for prevention especially in malaria prevalent areas.

**Filaria :**

Units of National Filaria Control Programme located at four urban towns viz Panaji, Margao, Vasco and Mapusa deal with Filaria disease. In order to detect the filarial cases, parasitic surveillance is carried out during night in these towns and necessary treatment is given for filarial positive.

Anti larval measures against mosquitoes are being carried out by these units. Night survey for micro filarial are also conducted by the respective CHC/UHC/PHC. National Filaria day is observed on 11<sup>th</sup> November every year since 2004 as a strategy to eliminate Filaria by 2015. The Mass Drug Administration with DEC tablets is done to ensure that the entire eligible population receive these tablets. Morbidity management of Lymphatic Filariasis is also another strategy of this elimination programme.

Japanese Encephalitis/Dengue/Chikungunya Fever

Japanese Encephalitis/ Dengue/Chikungunya Fever are other vector borne diseases reported in Goa. These cases are very sporadic. All Health Centers are instructed to keep a vigil on the report of such cases, investigate and undertake necessary disease surveillance in their respective areas. As far as Dengue and Chikungunya is concerned, the role of community is very vital. Because, *Aedes aegypti* – the vector is container breeder and are in most of the man made breeding sites in their residential/commercial/any other premises. They are domestic/peri domestic breeders. The community has to a) remove/destroy man-made breeding sites such as tyres, bottles, discarded coconut shells, utensils, ice cream cups, plastic/metallic containers, water tanks etc., and b) avoid water stagnation and observe emptying, drying and refilling of water tanks, drums etc once a week. The facilities for blood testing for Japanese Encephalitis/Dengue/Chikungunya Fever are available at the Microbiology Department Goa Medical college.

### **Integrated Vector Control**

These measures against the mosquito vectors include a) Anti larval operations involving – chemical spray. All health Centres are provided with chemicals and pumps b) Fogging operation in disease problematic areas and in case of any threat of increase in cases/epidemic of the disease. Ultra Low Volume fogging introduced in high risk areas c) Bio – environmental measures comprise of fish introduction in wells/ponds etc.

Hatcheries of fish are set up at 22 Health centers and d) physical measures of desilting, deweeding and channelizing..

BCC Activities:

Behaviour change communication strategies comprise of IEC activities to create mass awareness

**Advocacy/Inter sectoral co-ordination meetings**

**Involvement of Mass media Channels including print and electronic.**

**Folk media activities namely dramas and street plays**

**Display of mobile hoardings.**

**Cleanliness Drives through schools and village committees**

**Competitions/Campaigns in educational institutions and with non-governmental organizations.**

**Capacity Building**

**Regular training for Medical and paramedical including Laboratory technicians in and outside this state to have trained man power at all levels.**

**Legal Measures**

**Under the Provision of the Public Health Act, the migrant workers should have health cards which are issued after screening them for malaria before they are engaged at the construction sites. A fine of Rs. 1000 per labourer is imposed in absence of these cards. These cards are to be renewed every 3 months. The Builder/Contractor should take all anti-larval measures. Any default/contravention of the provisions of this Act, necessary steps are taken to disconnect water/electricity connection or even to the extent of revoking the license through concerned departments and local bodies.**

**4(a) Control of Blindness Programme**

**Under this programme the services of Ophthalmic Assistants are available in all the 5 CHCs and 14 of the PHCs viz. at Bicholim, Aldona, Candolim, Betki, Corlim, Curtorim, Sanguem, Chinchinim Sanquelim Quepem Bali and Cansaulim. Lotalium & Shiroda.he Ophthalmic Assistant checks the eyesight and prescribes spectacles. Cases of Cataract etc. are referred to the District Hospitals/Goa Medical College for specialized eye care.**

**District Blindness Control Society has been merged in to State Health Society Goa**

**Under the National Programme for control of Blindness with the objective to assist the National Programme in taking the services to the grassroot level in the rural areas. Almost 90% of the blindness problems is correctible namely due to Cataract and therefore Mega Eye Camps are organized wherein hundreds of patients are operated for cataract and**

lenses are implanted. Also temporary blindness due to refractive errors are corrected with suitable spectacles through the peripheral health network. Spectacles are provided free of cost after operation to poor people under District Blindness Control Programme. Spectacles are also supplied free of cost to the students of below poverty line families.

#### **5. Sexually Transmitted Diseases (STD) control programme**

**Sexually Transmitted Disease Control Programme, Directorate of Health Services, Panaji is a Non Plan Programme with a limited budget covering office expences and staff salaries at the head office and the three STD**

**Clinics at Mapusa, Margao and Vasco. S.T.D. Progrmme closely co-ordinates with The Goa State Aids Control Society (GSACS) and we execute Sexully Transmitted Disease control measures via The STD Clinics,the Community Health Centers,Urban Health Centers, Primary Health Centers and The Community.**

**Our infrastucture under The STD Control Programme consists of three main STD Clinics at,**

- 1.Asilo Hospital Mapusa.**
- 2.Hospicio Hospital Margao**
- 3.Baina Vasco.**

**There is separate Unit of Skin And STD at Bambolim under Goa Medical College.**

**Presently all Four STD Clinics/Units report to Goa State Aids Control Society.(GSACS) and three STD Clinics report to STDCP, DHS Panjim. Goa Aids Control Society further sends a consolidated Report to National Aids Control Organisation (NACO) New Delhi.**

**In Order to create awareness and prevent spread of STDs in community.**

**Our Sexully Transmitted Diseases Control Activities Include**

**Sexually Transmitted Diseases Control activities are being conducted among Adolescent population. Awareness through sex education in adolescents is carried out.**

**Early diagnosis and prompt treatment via The Health Centers,(Syndromic Management The Sexully Transmitted DiseaseClinics,(STD) and specialised referrals to skin and VD Department Goa Medical Collage,Bambolim.**

Promoting contacts tracing and counselling through The STD Clinics and Government Health Centers. Reducing the Sexually Transmitted Disease stigma through Information Counselling (IEC). Promoting condoms and safe sex and behavioural changes through health education.

Collecting Blood samples for V.D.R.L. in antenatal cases in Primary Health Centers in order to rule out diseases like syphilis to prevent adverse effect on the children. Spreading of STD/RTI/HIV/AIDS awareness to rural population and Urban slums. And treatment through of patients at peripheral level. popularizing the syndromic management of STD at Primary Health Centers/UHCs/ CHCs meetings.

The following table shows the examined of the patients at different PHCs  
**Medical Institutions and Their Activities**  
 January- 08 to August -08

Sr. No.	Items	State/District		
		Goa.	North Goa.	South Goa.
1	2	3	4	5
<b>XVII. SEXUALLY TRANSMITTED DISEASES CONTROL PROGRAMME</b>				
1	No. of STD Clinic under DHS	3	1	2
2	No. of STD Cases (excluding GMC)	1596	805	779
3	No. of old STD Cases	1385	824	561
3	Conducted VDRL test on STD Patient	302	84	218
4	Persons Found Positive STD Patients	Nil	Nil	Nil
6	Conducted VDRL test on Antenatal Patients	3967	2127	1840
7.	Antenatal patients found Positive	10	9	1

#### REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME (RNTCP)

Tuberculosis Control Programme is one of the National Health Programmes and is implemented by the State Government as per the Central Government. It is fully funded by the Central Government.

In the State the programme is implemented by the Directorate of Health Services and is headed by a State TB Officer (STO). The TB Control Programme is integrated with general health services and service is done

through all health institutions. TB is a serious public health problem in India causing immense morbidity, mortality and distress to individuals, families and communities.

In India, an estimated 4 lakh deaths due to TB occur every year. In Goa more than 2000 cases of TB are detected every year.

The National TB Control Programme (NTP) was launched in India in 1962. In 1992, the programme was reviewed. The review revealed that only 30% of the existing TB cases were diagnosed and of these only 30 were completing treatment. Hence a revised strategy to control TB was pilot tested in 1993, known as the Revised National TB Control Programme (RNTCP). This programme was expanded in a phased manner to cover the entire country in 2005. By June 2005, over 1 billion of the population was covered under RNTCP. In Goa, the RNTCP has been operational from September, 2004.

#### Goal

The goal of RNTCP is to decrease mortality and morbidity due to TB and cut transmission of infection until TB ceases to be a major public health problem.

It aims to control TB by detecting and curing sputum smear positive patients thereby interrupting the chain of transmission.

#### Objectives

1. To achieve and maintain a cure rate of atleast 85% among new sputum smear positive cases.
2. To achieve and maintain detection of atleast 70% of such cases in the population.

RNTCP is based on the internationally recommended strategy to control TB known as DOTS (Directly Observed Treatment short course)

#### Components of DOTS

1. Political and administrative commitment.

2. **Good quality diagnosis, primarily by sputum smear microscopy.**
3. **Un-interrupted supply of good quality drugs.**
4. **Directly Observed Treatment (DOT).**
5. **Systematic monitoring and a accountability.**

#### Structure of RNTCP

The RNTCP is lead by Central TB Division (CTD) in the Ministry of Health & Family Welfare Government of India, New Delhi. The State, District and Sub-District levels and Peripheral Health Institutions implement the programme.

#### Central TB Division

This is responsible for TB Control in the entire country. The Deputy Director General (DDG) is the National Programme Manager.

#### State Level

A State TB Officer (STO) is responsible for planning, training, implementing and co-ordinating the programme. A State Tuberculosis Control Society has been established for increased ownership and accountability and for smooth transfer of funds from CTD to the State and then to the Districts.

#### District Level

District Tuberculosis Centre is the nodal point for TB Control activities in the district and is headed by a District Tuberculosis Officer (DTO).

#### Training

Training of all the categories of staff is conducted as per modules designed by the CTD.

#### Supplies

The drugs are supplied directly by the CTD. All other items are purchased as per CTD guidelines.

#### Accounting

There is a double entry system of accounting and is audited by approved auditors.

#### Reporting

**All the reports are quarterly and submitted to CTD.**

#### Monitoring and Evaluation

**The programme is monitored at District, State and Central level.**

**RNTCP in Goa**

**The RNTCP is operational in Goa from September, 2004. DOTS has been ensured for all TB patients.**

**DOTS is being provided to the patients through all the Government Health units.**

- (i) Goa Medical College**
- (ii) The district hospitals for North & South Goa**
- (iii) All CHCs, PHCs, UHCs, SCs, RMDs.**

**Also, RNTCP is being adopted by different sectors like NIO, ESI dispensaries, military hospitals, Railways, Goa University etc. In addition, some private practitioners and few private hospitals are also providing treatment under RNTCP.**

**Goa Medical College has been in the forefront in the fight against TB. The RNTCP programme in GMC is supervised by a Core Committee with the Dean as the Chairman and Heads of Departments as its members.**

**Training has been provided to all the relevant staff. Every year refresher training is conducted for different categories.**

**DOT Providers**

**Studies throughout the world, have shown that most patients if left unsupervised, do not take medicines as prescribed. Therefore, all efforts are made to ensure that the DOT Provider directly observes every dose of medicine in the intensive phase and at least the first dose every week in the continuation phase.**

**Anyone, a doctor, pharmacist, nurse, health worker, anganwadi worker, a social worker except a family member can become a DOT Provider.**

**Patient and DOT providers meeting are being held at several places to assess the impact of the programme. We get encouraging responses from patients and DOT providers. Also an emotional bonding develops between the patient and the DOT provider.**

**There are 19 Designated Microscopy Centres (DMCs) which are functional all over the State. Quality sputum examination is done at these centres.**

IEC activities are being geared up by involving local leaders like the Panchayat and Zilla Parishad members, local MLAs, Schools & teaching institutions etc.

The following number of patients were put on DOT in Goa.

<u>Year</u>	<u>No. of Patients</u>
2004 (Sept to Dec)	509
2005	1731
2006	2037
2007	2105
2008	1996

Nearly 300 DOT Centres are actively participating in DOT to patients in the locality. DOT has resulted in excellent sputum conversion. The national norm is 90%. There has been consistent improvement. In 4<sup>th</sup> quarter 2007 sputum conversion in Goa was 89%. Annualised case detection rate is 151 which fairly satisfactory. Cure rate of new sputum cases in the 4<sup>th</sup> quarter 2007 is 74% compared to national norm of 85% and above. This is due to defaulters which include migrants and alcoholics. Efforts are on to improve the cure rate.

## NATIONAL LEPROSY ERADICATION PROGRAMME

### Leprosy Situation in Goa

National Leprosy Eradication Programme is working towards reducing the disease burden, by early diagnosis and treatment, preventing disability by improving awareness. This helps in self reporting by patients and ultimately removes the stigma from the society

In the XIth 5 year Plan, emphasis is given to searching for the cured leprosy patients with disabilities. They are assessed for the disability status and physical and socio-economic rehabilitation is given to them to restore function. Deformities are known to perpetuate stigma and discrimination; therefore to correct deformities is very significant in restoring their status in Society. Surgical procedures are provided free of

cost, self care practices are explained to them and monetary help in the form of medicines and dressing materials are provided. Counseling forms a major part of Deformities Prevention and Medical Rehabilitation (DPMR) services.

## GOA AT A GLANCE

### INFRASTRUCUTRE

Leprosy Hospital (Macasana).....	1
Leprosy Control Unit (DHSPanaji).....	1
RCS Unit GMC Bambolim, Surgery Dept.).....	1
Reporting Units District Hospital and UHC/CHC/PHC...30	

Goa achieved elimination in December 2006.( < 1 case per 10,000 pop.)

➤ Estimated population	:- 1480349
➤ New cases 2007-08	:- 156
➤ New case detection rate (NCDR) population	:- 10.54 / lakh
➤ Balance cases in March 2008	:- 112
➤ Prevalence Rate as on March 2008	:- 0.76
➤ Graded 2 deformity	:- > 2 in one district
➤ % of cases cured	:- 77.85

Capacity building of all general Health care system Health workers, Medical Officers and Private Practioners

Anti Leprosy day is celebrated on 30<sup>th</sup> January every year

Gandhi Jayanti is observed in Macasana with the inmates.

IEC/IPC on all Thursdays with NRHM and by general Health care staff

IEC IPC/during Health Melas and mobile Health camps every Saturday

Aired Konkani Messages . All India Radio Panaji.

Jingle on Doordersan Panaji.

Cinema Slides on leprosy in theatres.

Advocacy workshop held for Zilla Panchyat North & South Goa.

Table Showing Taluka- wise cases  
under treatment 2008-09& Cured  
Leprosy patients from 2001 to till date

Pernem	3	25
Bardez	39	234
Bicholim	2	96
Sattari	4	70
Tiswadi	40	212
Ponda	17	156
Sanguem	3	32
Quepem	13	104
Salcete	25	243
Mormugao	32	208
Canacona	5	22
<b>TOTAL</b>	<b>183</b>	<b>1402</b>

INTEGRATED DISEASE SURVEILLANCE PROJECT

The Government of India has initiated a decentralized, state based Integrated Disease Surveillance Project (IDSP) in the country in response to a long felt need expressed by various expert committees.

The project would be able to detect early warning signals of impending outbreaks and help initiate an effective response in a timely manner. It is also expected to provide essential data to monitor progress of on-going disease control programs.

Goa has commenced the implementation of the project from 1<sup>st</sup> of April 2005.

IDSP has replaced the NSPCD (National Surveillance Programme for Communicable Diseases), which was operational in the state since 1999.

**Objective**

The project development objective is *to improve the information available to the government health services and private health care providers on a set of high-priority diseases and risk factors, with a view to improving the on-the-ground responses to such diseases and risk factors.*

Project Highlights

- ❖ District and State Surveillance Units have been set up to gather weekly uniform high quality surveillance data from Reporting Units in Government and Private sectors at all levels.
- ❖ The project responds in a timely manner to surveillance challenges in the state including emerging epidemics.

- ❖ Surveillance activities under various programs in the state have been integrated and existing infrastructure is used maximally.
- ❖ A system of regular feed back to the participants of the surveillance activity has been put in place.
- ❖ All the personnel of the Directorate of Health Services have been trained in the programme. These include Medical Officers, Laboratory Technicians and Para-medical Workers. Anganwadi Workers have also been trained to look out for Warning Signals in the population.
- ❖ A fully-equipped Regional Laboratory has been established at the Dept. of Microbiology, Goa Medical College to enhance capacity for diagnosis and investigation of epidemics.
- ❖ District and peripheral Public Health Laboratories have been strengthened.
- ❖ The state has been integrated into the national surveillance network with the use of information technology for communication, data entry, analysis, reporting and feedback.

Diseases and Conditions under Surveillance

1. Malaria
2. Acute Diarrhoeal Disease (Cholera)
3. Typhoid
4. Tuberculosis
5. Measles
6. Polio
7. Plague
8. Dengue
  
9. Leptospirosis
10. Sexually transmitted/ Blood borne diseases like HIV, HBV, HCV
11. Unusual clinical syndromes (Causing death or hospitalization) such as Meningoencephalitis, Respiratory Distress, Hemorrhagic fevers and other undiagnosed conditions
12. Water Quality Monitoring
13. Outdoor Air Quality Monitoring
14. Road Traffic Accidents

Expectations

It is expected that IDSP will avert disease outbreaks and epidemics and reduce human suffering and improve the efficiency of all existing health programs.

Administrative set-up

Under the IDSP programme, a Goa State Surveillance Unit and a Goa State Surveillance Committee have been constituted. Secretary (Health), Govt. of Goa, is the chairperson of both the committees.

The State Epidemiologist is the State Surveillance Officer for IDSP in Goa and Member Secretary of both, the Committee and the Unit. (Room No. F-17, 1<sup>st</sup> floor, DHS bldg, Campal, Panaji- Goa. 403001. Tel- 2421810, Fax- 2225538, E-mail-dataman\_goastate@rediffmail.com )

#### NATIONAL IODINE DEFICIENCY DISORDERS CONTROL PROGRAMME

Iodine is an essential micronutrient. It is required at 100-150 micrograms daily for normal human growth and development. The disorders caused due to deficiency of nutritional iodine in the food/diet are called Iodine Deficiency Disorders (IDD).

#### **Prevention is better than Cure**

It is a well-established fact that with the exception of certain types of goiter, Iodine Deficiency Disorders are permanent and incurable. However, all these disorders can be easily prevented before they occur. The simplest method to prevent the broad spectrum of IDD is to consume iodated salt daily. This is the most effective and inexpensive mode to prevent IDD. Since salt is consumed by all everyday, the supply of iodated salt will ensure the availability of iodine for normal body function. The average consumption of iodated salt per person per day is about 10 gms.

#### **Objectives**

The important objectives and components of National Iodine Deficiency Disorder Control Programme (NIDDCP) are as follows:

- Periodical Surveys to assess the magnitude of Iodine Deficiency Disorders.
- Ensuring Supply of iodated salt in place of common salt.
- Health education.

#### **Policy**

The Government of Goa has issued ban notification on the sale of non-iodised salt for edible purposes with effect from 15<sup>th</sup> August 1997. The defaulters are liable to be penalized under PFA Act of 1954. The monitoring for iodine content of iodised salt is done by the combined Food & Drug Laboratory of the Directorate of Food & Drug Administration.

State IDD Cell

The National Iodine Deficiency Disorder Control Programme Cell was created in Goa in September 1996. The Cell reports to D.G.H.S., Ministry of Health & Family Welfare, and Government of India. This Cell is responsible for:

- Creating demand for iodated salt.
- Monitoring consumption of iodated salt.
- Conducting goitre surveys.
- Dissemination of information, education and communication.

**Information, Education and Communication (IEC)**

The following IEC activities are carried out by the centre and the state:

- Radio/TV spots are broadcast/telecast.
- Posters/ Acrylic boards/ Dangers have been developed and distributed.
- Salt Testing Kits for the qualitative testing of iodated salt to show presence of iodine are being used for creating awareness among people.
- IEC materials such as Pamphlets, Height Charts, Calendars, Planners, stickers, plastic bags, coasters, glasses, salt containers, napkins, greeting cards etc. carrying the messages of importance of use of iodised salt for edible purposes.

Administrative set-up

The Programme is managed by the State Epidemiologist, who is the State Nodal Officer for NIDDCP in Goa. (Room No. F-33, DHS bldg, Campal, Panaji- Goa. Tel/Fax- 2225538)

Acquired Immune Deficiency Syndrome (AIDS) Control Programme

**HIV/AIDS Control Programme in Goa**

HIV/AIDS epidemic in Goa is more than 16 years old. In this short period it has emerged as one of the most serious public health concerns. The available sentinel surveillance data clearly indicates that HIV infection is prevalent in almost all parts of Goa and in recent years has spread from urban to rural and from individuals practicing high-risk behaviour to general population. With no vaccine or cure till date, prevention is the only way to control the epidemic through promotion of behavioural changes, adoption of healthy lifestyle and reduction of risk of infection. In order to alleviate the epidemic's devastating social and economic impact,

concerted efforts are being made at all levels to control the spread of infection, reduce peoples' vulnerability to HIV and to promote community and family based care to HIV/AIDS cases under AIDS Control Programme. In Goa HIV/ AIDS control programme was launched in May 1992 with the setting up of the 'AIDS Cell' under the Directorate of Health Services. As per the guidelines of Government of India, for smooth flow of funds to the programme and for greater functional autonomy, Goa State AIDS Control Society (GSACS) was established in April 1999. For effective control and prevention of the epidemic, GSACS primarily facilitates and directs various activities at the State and local levels. The **first phase** of the National AIDS Control Programme (NACP) was implemented during 1992-1999 mainly to slow down the spread of HIV, to reduce future morbidity, mortality and the impact of AIDS by initiating a major effort in the prevention of HIV transmission. The **second phase** of NACP (1999-2006) had two key objectives viz. (i) Reduce the spread of HIV infection in Goa and (ii) Strengthen Goa's response to HIV/AIDS on a long-term basis. Some of the strategies adopted in its efforts to prevent and control HIV/AIDS were:

- Prevent further spread of the disease by:
  - Improving HIV/AIDS awareness and providing necessary skills/tools to protect themselves.
  - Controlling STDs including condom promotion.
  - Ensuring availability of safe blood and blood products.
- Creating a socio-economic environment that enables individuals to protect themselves from infection and allow families and communities to provide care and support to people living with HIV/AIDS.
- Improve services at all levels – hospitals and community based home care – that provide care for people living with HIV/AIDS.

The **Phase-III** (2007-12) of AIDS Control Programme will no doubt build on the strengths developed, lessons learnt, gaps identified and experiences gained in the previous two phases of NACP, and consolidate the achievements. However, HIV can no more be the sole agenda of one organisation or department. **Mainstreaming HIV/ AIDS** into the existing responses of various development processes and government / non-government responses is a cost effective and efficient approach to address the direct and indirect causes and impact of the epidemic. Strengthened partnerships with traditional and non-traditional stakeholders from Government, Civil society and Private sector are a critical strategy for facilitating sustained outreach and coverage. The long-term vision of NACP III is to make HIV/ AIDS

everybody's responsibility and move towards the goal - to stabilise HIV prevention – zero new HIV infection.

***Some of the visions envisaged in the NACP III would be:***

By creating an enabling environment conducive for mobilization and empowerment and achieving saturated coverage (80%) of high-risk population towards reducing the risk of HIV infection by 2012. This includes addressing the core issue of capacity building among all constituencies involved in the planning and implementation of TI.

To have a holistic approach to service delivery and provide all the required services at one stop centre in an integrated mode. Improve quality of care, enhance, and support initiatives for HIV infected ensuring sustained care and support with 90% coverage for OIs/ ART.

To have a cohesive training strategy to translate the overall objectives of strategic planning for HIV/ AIDS prevention and control into reality with capacity building as the guiding principle.

Decentralisation of the entire planning and implementation process down to District/ Taluka/ grass root levels to match the ground realities.

To protect all sexual acts having risk of HIV/ STI transmission and unintended pregnancies by enhancing knowledge and behaviour change, increasing access and minimizing wastage of condoms and directing specific condom promotion strategies.

To prevent further spread of HIV to the general population based on the vulnerability.

The vision is: Together we will win against HIV/ AIDS through social ownership and social action.

Greater Involvement of People living with HIV/AIDS (GIPA) i.e. empowered involvement of people living or affected by HIV/ AIDS, which is critical for appropriate and effective responses.

Everyone having access to rights without any discrimination, including the highest standard of health, living, services, information, support structures, facilities and networks.

To mitigate the vulnerabilities of children, adolescents, young people, women and other gendered identities in relation to HIV/ AIDS by enhancing their access and participation to comprehensive and appropriate HIV/ AIDS programme in the prevention of HIV, care and support continuum through rights based gender sensitive approach.

To have evidence based strategic planning and better programme management, Strategic Information Management Unit to be set up at the state level and M & E units to be set up at the District levels with requisite capacity building training for M & E and Project Managers on

how to use data for management and in conducting self assessment of service quality & client satisfaction.

With these brief visions, it is proposed to halt and reverse the epidemic in Goa by 2012.

For the control and prevention of HIV/AIDS in Goa, GSACS over the last 15 years has initiated various measures and has also developed certain infrastructure facilities/ services, which are listed below:

I. Blood Safety

- All the blood banks under the state government i.e. the ones attached to the Goa Medical College and the two district hospitals viz. Hospicio and Asilo have been modernised and suitably strengthened with requisite blood bank equipments, trained manpower, consumables, chemicals and other infrastructure.
- Testing of every unit blood for detecting infections for diseases like Hepatitis B & C, Syphilis and Malaria apart from testing for HIV has been made mandatory to ensure that only safe blood is released for transfusion as per the National Blood Safety Policy. For this purpose necessary kits, equipment, reagents, glassware and blood bags are supplied to the above three blood banks by Goa State AIDS Control Society.
- Goa State Blood Transfusion Council has been set up to oversee blood transfusion services and ensure effective implementation of the programme and better management of blood banking services at State/ District levels.
- Professional donors have been totally **banned** in Goa and efforts are being made to gradually phase out replacement donors and achieve 100% voluntary donation programme. Voluntary donation has increased from 28.7% in 2000 to 62.6% in 2007.
- Regular blood donors and NGOs who organise blood donation camps on a regular basis are felicitated by the Goa State Blood Transfusion Council at the State level function on Voluntary Blood Donation Day i.e. 1<sup>st</sup> Oct., in recognition of their contribution.

ii) STD Control Programme

In view of the importance of treatment and control of STD in relation to HIV infection, STD control programme has been made an integral component of AIDS control policy. Government of India has accorded top priority to the prevention and control of STDs as a strategy for controlling the spread of HIV/ AIDS in the country. Suitable strategies have been devised for the control and

prevention of STD as a priority in the overall planning to control the spread of the HIV infection.

In Goa the STD control is being implemented as a part of the National STD Control Programme since mid sixties by the Directorate of Health Services. With the arrival/ spread of HIV infection and because of its strong relation with STD, the programme was brought under the purview of National AIDS Control Programme in the year 1992 as per the national pattern. With this, the programme has received the much needed boost in terms of:

- All the four Government STD clinics in Goa - in the Department of Skin and V.D., Goa Medical College; Hospicio Hospital, Margao; Asilo Hospital, Mapusa and STD Clinic, Baina have been strengthened by providing technical support, equipment, reagents and drugs.
- Funds have been provided by Goa SACS for renovating the STD Clinics at Hospicio, Asilo and Baina.
- Each STD Clinic is provided Rs.1.00 lakh per year for procurement of drugs, equipment, etc. by Goa SACS.
- Adequate and comprehensive case management including diagnosis, treatment, individual counseling, partner notification, provision of condoms, etc.
- Orientation trainings for all the medical and paramedical workers engaged in providing STD/ RTI services through syndromic approach have been organised. 160 doctors (including private practitioners) have been trained in STD case management through syndrome approach i.e. management of STDs based on specific symptoms and not dependent on laboratory investigations.
- Management of STDs has been incorporated/ integrated in the general health service/ peripheral health system, so that unnecessary referrals can be avoided leaving the specialized service free for management of complicated cases.
- Development of appropriate laboratory services for the diagnosis of STD.
- Early diagnosis and treatment of mostly asymptomatic infections through case finding and screening.
- Special emphasis on early detection and prompt treatment of STDs among High-risk groups such as CSWs, MSM, migrant labour, Truckers, etc. STD referral system has been developed under targeted interventions undertaken by the NGOs in their respective project areas.

- Prevention and transmission of STD/ HIV infection through IEC including raising of awareness to educate the people for responsible sexual behavior, safer sex, condom usage and promotion of appropriate health care seeking behaviour.
- Surveillance to assess epidemiological situation and monitor and evaluate the ongoing STD control programme.
- Sensitisation of community about the problems related to RTIs/ STD through Family Health Awareness Campaign for early detection and referral to CHC/ PHC for treatment. In Goa six such rounds have already been carried out.
- Greater emphasis is placed on strategies to prevent STD through integration of STD prevention in “IEC for HIV prevention”. STD services are being made available through integrating STD case management at the first level of the health delivery system.

### iii). Target Intervention

Since particular groups of people such as commercial sex workers, MSM, truckers, tourism related workers, migrants, street children, etc. are more vulnerable than others to the HIV/ AIDS epidemic, direct intervention programmes among those groups through a comprehensive and integrated approach beginning from behaviour change communications, counseling, providing health care support, referrals, condom promotion and creating an enabling environment that will facilitate behaviour change have been undertaken through NGOs since Oct. 1999 who are being funded by Goa SACS. During the year 2007-08 in all 10 TI project have been funded by Goa SACS to the tune of Rs. 110.23 lakhs- one each covering the core groups namely Sex Workers and Men having Sex with Men, Intravenous drug Users and 6 on migrant and truckers. This number is being fortified.

Dealing with HIV is much more than just creating awareness or use of condom. Since the awareness levels are already very high in Goa, we need to go beyond awareness and bring about attitudinal and behavioural change, empowerment, negotiating skill and creation of enabling environment that will facilitate behaviour change. For effective implementation of the targeted intervention efforts are being made for capacity building of NGOs through regular workshops, training programmes, exposure visits, etc.

### iv) *Integrated Counseling and Testing Centres (ICTCs)*

In order to help people know their HIV status, to get early access to care and treatment, to prevent HIV related illness, to maintain safer sexual practices, to cope with HIV related anxiety and to plan for the future, voluntary testing facilities with pre-test/ post-test counseling have been

made available at Goa Medical College, one centre each at the two Dist. Hospitals and one at Chicalim Hospital, Vasco. During the year 2006-07, four more ICTCs were set up at the CHCs (Canacona, Pernem, Valpoi and Curchorem),. At present, on an average about 2300 blood samples are screened per month, which is likely to increase with setting up of more stand alone ICTCs, and on Public Private partnership based ICTCs. Also HIV testing facilities will be made available at 24 PHCs in a phasic manner. From 2007 the VCTC has been changed to ICTC. Integrated because it caters to both pregnant and direct walk in –clients .

#### **v) Prevention of Parent-to-Child Transmission (PPTCT) of HIV**

The prevalence of HIV infection among antenatal attendants in Goa as per the Sentinel Surveillance data ranged between 0 and 1.38% during the period from 1998 to 2006. and in the last three years it varies from 0.50 to 0.18 The PPTCT programme was first launched in Goa Medical College, Bambolim w.e.f. April 2003. With the progression of the epidemic in general population and increase in the proportion of women among those infected, HIV transmission from HIV infected mothers to infant is on the rise in Goa. The programme was extended to both the District Hospitals namely Hospicio Hospital, Margao and Asilo Hospital, Mapusa during the year 2005 – 2006. I.C.T.C. services has been extended to 4 new centres namely CHC Pernem and CHC Valpoi in North Goa and CHC Canacona and CHC Curchorem in South Goa during the year 2006 - 07. These centers will also cater to the ANC and direct the clients to the nearest PPTCT center for follow-up.

Some of the critical components of PPTCT programme are:

- The programme envisages effective reduction of HIV infection from mother to child by providing quality antenatal care including preventive services.
- Provision of reproductive health related interventions in couple-setting
- Promotion of rational use of blood
- Voluntary Counseling and Testing for HIV infection
- Health education to pregnant mothers covering nutrition, infant feeding practices, exclusive breastfeeding, birth spacing methods, etc.
- Interventions to reduce mother to child transmission including antiretroviral drugs

- Care and support to HIV infected mothers and children and reducing their vulnerability.

#### **vi) Information, Education, Communication (IEC) & Social mobilization**

Information, Education and Communication (IEC) is a process that informs, motivates and helps people to adopt and maintain healthy practices and life skills. It aims at empowering individuals and enabling them to make correct decisions about safe behaviour practices. IEC also attempts to create an environment that is conducive and supports access to treatment and services for those already infected. In the absence of a vaccine or a cure, prevention is the most effective strategy for the control of HIV/ AIDS and therefore communication is one of the most important strategies in the fight against HIV/ AIDS and STDs. The second phase of the National AIDS Control Programme gives highest priority to an effective and sustained strategy to bring about changes in behaviour to prevent further infection. A full range of activities and approaches from mass media campaigns for the general public to target specific interventions to help individuals to negotiate safer practices are being adopted. IEC programmes have also been integrated in various components of the programme such as STD services, condom promotion, Blood safety, TIs, etc.

The basic objectives of the IEC strategy are:

- To raise awareness, improve knowledge and understanding among the general population about AIDS infection and STD, routes of transmission and methods of prevention.
- To promote desirable practices such as avoiding multi-partner sex, condom use, sterilization of needles/ syringes and voluntary donation of blood.
- To mobilise all sectors of society to integrate messages and programmes on HIV/ AIDS into their existing activities.
- To train health workers in AIDS communication and coping strategies for strengthening technical and managerial capabilities.
- To create a supportive environment for the care and rehabilitation of persons with HIV/ AIDS.

The various components of the IEC strategy for raising awareness, behavioural change and social mobilisation are:

- Use of mass media
- Advocacy at various levels
- Inter-sectoral collaboration
- Training
- Involvement of NGOs

In order to develop Information, Education and Communication strategies to key target groups relevant to Goa, a Communication Needs Assessment Study was undertaken by the Tata Institute of Social Sciences, Mumbai in the year 2000. An IEC Committee consisting of qualified and experienced IEC specialists have been formed to strategize, review, provide feedback and extend support to Goa State AIDS Control Society. Some of the activities undertaken by Goa State AIDS Control Society to raise the awareness levels and to bring about behaviour changes are:

A: General

- General education programmes on HIV/ AIDS are conducted for the youth organisations, voluntary bodies, government departments, women, high risk groups, opinion leaders, schools, colleges, etc.
- Hoardings with messages on HIV/ AIDS displayed at prominent places.
- Konkani dramas (tiatr) and magic shows on HIV/ AIDS were staged in villages.
- Video spots / audio cassettes/ Awareness promos on HIV/ AIDS.
- Folk media and floats were organized during the carnival and shigmo parades.
- Fillers on HIV/AIDS in Konkani has been produced and screened on cable network throughout Goa.
- Screening of films on stigma discrimination and human rights related to HIV/AIDS.
- Televisions installed in and out-patient departments of GMC for screening of spots on HIV/AIDS during the OPD hours.
- Booklets on (i) Questions and answers on HIV/AIDS (ii) Containing HIV/AIDS in Goa (iii) AIDS in Women and Children and (iv) AIDS Fortnight, etc. were brought out.
- Handbills and pamphlets on STD and HIV/AIDS produced in different languages.
- Posters on STDs/ HIV/ AIDS/ Blood Safety/ Post Exposure Prophylaxis, etc. are produced and distributed to all the hospitals, Health Centres, NGOs, etc.
- Folders on STDs were produced and are being used extensively by field workers for interpersonal communication.
- Six rounds of FHAC were undertaken since 1999 to raise awareness in RTI/ STD/ HIV/ AIDS and encourage treatment seeking behaviour among the general population and marginalized groups.

- House to house awareness by field staff of Health Services and ICDS along with distribution of IEC pamphlets and folders on STD/ HIV/ AIDS.
- World AIDS Day fortnight is observed on 1<sup>st</sup> December at State level and all the Primary Health Centres as also by the NGOs every year.
- Voluntary Blood Donation Day is observed on 1<sup>st</sup> October every year. Regular voluntary blood donors and NGOs who organise regular voluntary Blood Donation Camps are felicitated.
- Posters and greeting cards have been made based on the prize-winning entries of the World AIDS Day commemoration - 2001.
- Informative sessions/ open forum on HIV/ AIDS/ STDs are organised for industrial workers police departments, Postal staff. All queries, doubts, misgivings on sex, sexuality and other related topics are answered by a team of doctors at the work place.

***B: Awareness in educational institutions***

- Talks on HIV/AIDS given by the Health Officers/ M.O.s in schools and colleges in their jurisdiction.
- Programme on HIV/AIDS have been carried out at the PTA meetings in different schools in Goa.
- Question-answer sessions have been held in different educational institutions where a panel of resource persons from the GSACS and GMC answer the questions asked by the students anonymously.
- 'Disha 2000', a student-to-student educational programme was launched. Sessions on HIV/ AIDS have been conducted in different schools to the students of Std. IX and Std X. Under this programme, medical interns of Goa Medical College educate the students of high

schools and higher secondary schools on family life values including sexuality and HIV/AIDS.

- A booklet on sexuality and other related issues based on the frequently asked questions by the students has been prepared, which will address the myths and misconceptions that youth have.
- To catalyze an expanded response towards HIV/ AIDS epidemic, Goa SACS has intersect oral collaboration with all the Govt. Depts., NGOs, industries, political leaders, etc. by networking and advocacy.
- Sports has proved to be an effective means of IEC to raise awareness in the state. The Goa Police Football tournament was hosted by Goa State Aids Society in collaboration with the Goa Football Association. At each match venue information stalls and

counselors interacted with people Telling them about HIV/AIDS and demonstrating the use of condoms. Condom mascot was created to break the shyness of condom usage. Brand Ambassador was launched to initiate the Aids awareness among the youth.

- The first issue of the Quarterly News Bulletin was released on 1<sup>st</sup> October 2005. Newsletter is an endeavour in making everyone aware of Government's commitment and its role in tackling the HIV/ AIDS epidemic in the state of Goa.

The National AIDS Control Programme seeks to attain awareness level of not less than 90% among the youth and others in the reproductive age group by the end of the project. It is rather encouraging to note that in some key important areas like generation of awareness about HIV/ AIDS which were almost insignificant at the beginning of the epidemic have increased among the general population both in urban and rural areas as also among the high risk groups. The Behavioural Surveillance Survey (BSS) carried out by Government of India in 2001 among the general population in various states has revealed that:

- The overall awareness about HIV/ AIDS among people in the age-group 15-49 years in Goa was 93.6%, males 97.0% and females 90.2%. In urban areas awareness levels were much higher being 99.0% for males and 94.6% for females. The lowest awareness was among rural women (87.2%).
- About 92% of the respondents were aware that HIV/ AIDS is transmitted through sex. This level of awareness was next only to Kerala (95%). (Figures for all-India was 71% and the lowest was in Bihar 38%). The corresponding rates were higher among urban

residents (95.5) and males (urban males 97.3%) lowest was among rural females (84.4%).

- Awareness of transmission of HIV/ AIDS through blood and sharing of needles was consistently high (92%). About 75% were aware that the infection could be transmitted through breast-feeding.
- About 80% of the respondents were aware of the potential benefits of consistent and correct condom use in prevention of transmission of HIV/ AIDS.
- More than 74% of the respondents were aware that having one faithful and uninfected sex partner could prevent the transmission. A significantly larger portion of the respondents (92%) were aware that sexual abstinence played an important role in prevention of transmission compared to other modes of transmission.

- Knowledge that the HIV infection cannot be transmitted by mosquito bites and sharing of meals with an infected person and that a healthy looking person may be suffering from HIV/ AIDS was relatively low in Goa. More than two-thirds harboured some incorrect beliefs regarding transmission.

Future strategies to address the gaps and response to the evolving epidemic *inter alia* include:

- Setting up of mobile exhibition units, innovative flex print displays, high swinging balloons, promoting folk media, magic shows, etc and also leveraging unconventional media like road shows, merchandise items such as mugs, wobblers, T-shirts, etc. in a bid to create community contact.
- Strengthening adolescent education and behavioural change communication amongst the educational institutions, by having more interactive two way programmes.
- Scaling up of School AIDS Education Programme to cover all the Secondary and Higher Secondary Schools in Goa in collaboration with the Directorate of Education.
- Extending 'Disha 2000' programme to all Educational Institutions.

In the absence of a vaccine or a cure, prevention is the most effective strategy for the control of HIV/ AIDS. IEC is a process that informs, motivates and helps people to adopt and maintain healthy practices and life skills. A full range of activities and approaches from mass media campaigns for the general public to target specific interventions to help individuals to negotiate safer practices are being adopted.

#### **vii) Community Care Centre**

To take care of AIDS patients two Community Care Centers with 10 beds each, have been set up in Goa which are run by the NGOs and are being funded by Goa State AIDS Control Society. The one in North Goa is located at Guirim, Bardez, which is run, by Freedom Foundation and the other at South Goa is located at Cavellosim, Salcete which is run by

**Caritas, Goa. This Community Care Centre provides services required in between a home and a hospital.**

viii) Drop in Centre

**Two Drop-in-Centres for People Living with HIV/AIDS is run by NGOs funded by GSACS. These centres are Zindagai in South Goa and Positive Life Foundation in North Goa.**

ix) Toll free AIDS helpline 1097

**To provide information pertaining to HIV/ AIDS/ STDs, particulars of services available and other related issues including providing psychological support to those already infected, help families and partners of infected persons to receive prevention services, etc., a toll free AIDS Helpline 1097 has been set up. An Interactive Voice Response System has been set up for providing round the clock access to information on HIV/ AIDS, available services and other related issues including providing psychological support to those already infected.**

x) Opportunistic Infection Management

**The facilities for the management of the Opportunistic Infections are provided at Goa Medical College at tertiary level and two District Hospitals at Secondary level. The Goa State AIDS Control Society supports all the activities undertaken by Goa Medical College and the hospitals under Directorate of Health Services for OI management. There is absolute co-ordination between the National TB Control Programme, TB and Chest Disease Hospitals and Goa State AIDS Control Society when it come to management of TB-HIV co-infections.**

**The drugs for OI management shall be procured as per NACO guidelines and approved list of drugs. Estimating 2 episodes per person per year, nearly 6000 episodes would require treatment. The estimated cost would be Rs. 2, 00,000.00.**

Xi) Post Exposure Prophylaxis

**The Goa State AIDS Control Society has ensured the Post Exposure Prophylaxis is made available at all the Government hospitals/ health centres. The Health units are either provided finance to procure the drugs or the said drugs are supplied to them. Training sessions and Continuing Medical Education programme are conducted for Government as well as private sector medical professionals and others.**

## Xii) Workplace Intervention

For strengthening the world of work response to HIV/ AIDS both in the formal and informal sectors a comprehensive work plan has been drawn in close collaboration with the International Labour Organisation, New Delhi and is being implemented w.e.f. December 2004 in Goa. GSACS is working in collaboration with Goa Chamber of Commerce and Industries in this regard. In all eleven industrial organizations have taken the initiatives for the intervention.

## xiii) Training

Regular training programmes on HIV/AIDS/STD are being organized for doctors and other para medical staff by Goa SACS. Goa SACS also organized regular capacity building trainings for NGO staff.

## xiv) CD4/ CD8 blood count facility:

For management of HIV/ AIDS patients, CD4/ CD8 count facility has been established at Goa Medical College in July 2001. With the setting up of ART centre at Goa Medical College on an average 6 to 8 patients are screened per day for CD4/ CD8 blood count to verify and assess the immune status of a HIV patient. It is proposed to have additional CD4/CD8 testing facilities in Goa keeping in view the expansion plan of the ART Centres and also increasing number of patients on ART.

## Xv) TB / HIV

### Collaborative activities

As per NACO sentinel Surveillance report of the year 2006, the prevalence of HIV infection is estimated to be 0.36% of the population, which translated to 2.5 million people living with HIV/AIDS in India. Tuberculosis (TB) continues to be a public health challenge in India and it is estimated that 1.8 cases of TB occur in India annually. Active TB diseases is the commonest opportunistic infection amongst HIV infected individuals, A low cost and high quality cure for TB is provided under the Revised National Tuberculosis Control Programme (RNTCP) which implements the DOTs strategy of treatment for TB nationwide. Standard Short –course anti-TB regimens have been shown to be effective in TB patients with or without HIV infection, In Goa as per estimates 3415 TB occurred annually of which 70% are to be detected. i.e. about 2391 cases. Assuming that 5% of TB patients are HIV positive, it works out to be about 120 patients

annually co-infected with TB/HIV. TB HIV cross referrals activities are being carried out with the involvements of DMCs and ICTCs.

TB/HIV collaborative activities were started in the year 2001 in the six high prevalence states and by 2007-2008 are to be extended to the entire country. Goa is being identified as one of the 9 high sero-prevalence states and brought under the Intensified TB Package of Services.

Objectivities of TB /HIV Collaborative Activities:

1. To establish mechanisms for Co-ordination between RNTCP & GSACS at, State and District levels.
2. To decrease morbidity and mortality due to tuberculosis among Persons Living with HIV/AIDS.
3. To decrease the impact of HIV in tuberculosis patients and provide access to HIV related care and support to HIV infected TB patients

Key activities identified under TB/HIV Co-ordination to be carried out:

1. Formation of State Co-ordination Committee and State Technical Working Group (STWG)  
State Co-ordination Committee formation is already in process. As Goa is a small State, for better co-ordination and proper implementation among the various functionaries it will be proper to form only the State- Co-ordination Committee and State Technical Working Group (TWG)
2. Services delivery co-ordination and cross –referrals through training of the programme officials and the field staffs and establishment of linkage between services delivery sites of GSCAS in ART Centers, ICTCs, Care & Support Centers and RNTCP diagnostic and treatment services.
3. Involvement of NGOs working in under GSACS and RNTCP in TB /HIV
4. Operational Research to improve the implementation of TB/HIV Collaborative activities.
5. Implementation of feasible and effective infection control measures.

The service delivery that is to be carried out

1. Training of Programme Officials and field staff in TB/HIV.
2. Intensified TB Cases finding at ICTCs, ART, Care & Support Centers.
3. Routine Referrals of all TB patients for voluntary HIV Counselling and Testing.
4. Referrals of HIV infected TB patients to NACP for additional Care & Support including ART.

5. Provision of Co-Trimoxazole Preventative therapy (CPT) to HIV infected TB patients
6. Expanded recording and reporting.
7. IEC activities on RNTCP

Xvi) Inter sectoral Collaboration

HIV/ AIDS epidemic is not a health problem alone but every facet of human life is affected. It is therefore imperative for every sector of the society, Government, non-governmental organizations, business, industry, leaders, policy makers and media to be actively involved in the AIDS control programme. Goa State AIDS Control Society has adopted a policy of involving the various sections by effective networking and advocacy. Goa State AIDS Control Society has intersectoral collaboration with different departments such as Health, Education, Social Welfare, Women and Child Development, Labour, Youth Affairs, Industries, etc. The overall goal of collaboration is to catalyse an expanded response towards the HIV/ AIDS epidemic in order to improve prevention and care, reduce people's vulnerability to HIV and alleviate the devastating social and economic impact of this impact.

Xvii) School AIDS Education Program (SAEP)

Adolescence Education program has been initiated through the Education Department where safe sex education with health related information and life skill education will be provided. Under the School AIDS Education

program about 50% schools have been covered, the balance 50% will be covered this year along with sustaining the ongoing program.

Xviii). Red Ribbon Club (RRC)

Red Ribbon club is a voluntary on campus intervention for youth. These programs will be started in 2007 and plans to cover 60% of the campuses in the State, through multisectoral collaboration with Educations Dept., Indian Red Cross, NSS and Department of Youth and Sports Affairs.

Xix). Condom Promotion

**1. Free Supply:** Condom promotion strategies will aim to position condoms for dual benefits of Prevention of STD including HIV and prevention of unwanted pregnancies. Communication messages towards normalization of condom will be developed and disseminated to the population using varieties of media vehicles. The TI sites will have mid – media activities like street plays, and condom demonstrations to ensure

correct and consistent use of condoms. Under free supply condoms 989800 condoms were distributed to target populations through NGOs

2007-08.GSACS.50 CVM have been installed through HLLFPPT in the Sulabhs however these are not functioning to the optimum either because of breakdowns or refilling problems. Earlier GSACS had provided condom outlet boxes to TIs this year with an increase in the area of TIs more such outlet boxes are being supplied.

**2 Social Marketing:** TIs will be imparted training on activities designed to ensure increasing the use and demands for social marketing of condoms

#### Institute of Nursing Education

The Institute of Nursing Education offers a B.Sc. Nursing Course of 4 years duration with an annual intake capacity of 25 students and a multi purpose health worker's course with an annual intake capacity of 20 students.

The Institute also conducts continuing education programme for in service nursing staff.

(For more details, the Principal, Institute of Nursing Education, Bambolimi, may be contacted. )

#### Miscellaneous Facilities

- Two Private rooms are available for patients at Hospicio Hospital, Margao.
- Mortuary facilities are available at Hospicio Hospital, Margao for keeping dead bodies.
- There is a Chemist's shop in the premises of Hospicio Hospital, Margao.
- Adequate drinking water and toilet facilities are available in all the hospitals.

- STD booths are available in the precincts of Hospicio Hospital, Margao.
- 
- Almost all the Hospitals, CHCs and PHCs have telephone facilities.
- 
- At the Head Quarters the Directorate of Health Services has Computer, Fax and E-Mail facilities.

### **Complaints and Grievances**

- In spite of our best intentions / efforts, you may have occasions where the services provided are not upto your expectations.
- Please register your complaints with the officer-in-charge of the Hospital/Health Centre, a copy of which could be sent to the Director, Health Services, Campal, Panaji..
- All genuine complaints will be settled within a reasonable time. If not, the time required to resolve will be communicated with due justification.
- There is a Grievance Cell in the Directorate of Health Services to settle issues, which are not resolved at the Hospital/Health Centre level.
- Useful feedback and constructive suggestions for improvement of services are welcome. It may help us to serve you better. These may be addressed to the office-in-charge of the Hospital/Health Centre with a copy to the Director of Health Services.

### **User's Responsibilities**

- For successful delivery of any programme or service both the beneficiary and the provider have to mutually co-operate and support.
- The beneficiaries should appreciate the various constraints and bear with any of the unavoidable shortcomings/lacunae in the services available/provided and the inconveniences thereof.

- Please use the facilities provided in all the institutions with care, and in good faith.
- Ensure that while using the facilities other patients are not inconvenienced, or put into hardships.
- Please help the authorities in keeping the toilets, bathrooms, wards, the hospital premises and the surroundings neat and clean. Ensure proper
- disposal of waste materials such as, food items, etc. so that wash basins, toilets are not choked.
- Spitting, Smoking in the hospital premises is strictly prohibited.
- Maintain silence in the wards and corridors etc. so that you are not disturbing other patients.
- Please refrain from demanding undue favors from the staff and hospitals.
- Beware of touts.
- Please mind well the success of the Charter largely depends on the support we receive from our users.

The Central Right To Information Act 2005

Under the right of information act 2005 (Central Act No 22 of 2005), adopted by the Govt of Goa and published in the Official Gazette of Govt Notification No 10/2/2005-LA dated 7/7/05, the Directorate of Health Services, Panaji has appointed the following Officials as Public Information Officer and Assistant Public Information Officer

1) **Rajnanda Dessai** ,  
 First Appellate Authority  
 Directorate of Health Service  
 Campal ,Panaji -Goa.

2) **Shri Anil Kumar, Dy, Director (HIB)**  
 Public Information officer,  
 Directorate of Health Services,  
 Campal, Panaji-Goa. Ph. No 2232141.

Besides the above, the Officer-in-charge of all Hospitals/CHCs/PHCs under this Directorate are designated as Public Information officers for

the purpose of The Central Right to Information Act 2005, in order to avoid any inconvenience to the general public.

Under the above Act ,all the Citizen have right to access to various information i.e. any material in any form, including records, documents, memos, e-mails, opinions, advices, press releases, circulars, orders, log books, contracts, reports, papers, samples, models, data materials, which can be accessed by a public authority under any other law for the time being in force.

The general Public or any Citizen may make an application for obtaining information under the above act from the Public Information Officer.

In the above matter, however any member of General Public, having not satisfied with the information supplied to them or no information is supplied and no communication is received by the applicant within the prescribed time period or if the applicant is not satisfied due to any reason ,the applicant can prefer first appeal before the Director of Health Services, who has been designated as first Appellant Authority.

## Annexure - II

### LIST OF RURAL MEDICAL DISPENSARIES CHC/PHC WISE

C. H. C. / P. H. C.	Location of R. M. D.
1	2
North Goa District: C. H. C., Pernem	1. Arambol 2. Mandrem 3. Morjim
Ponda C. H. C., Ponda	4. Volvoi 5. Savoi-Verem 6. Durbhat (Agapur) 7. Usgaon
C. H. C., Valpoi	8. Dongurli ( Thane) 9. Querim 10. Guleli
P. H. C., Bicholim	11. Dodamarg (Latambarcem)

P. H. C., Betki	12. Chorao
	13. St. Estevam (Jua)
	14. Cumberjua
P. H. C., Siolim	15. Chapora (Anjuna)
P. H. C., Colvale	16. Revora – Nadora
P. H. C., Cansarvornem	17. Dhargalim
P. H. C., Corlim	18. Piedade (Malar)
P. H. C. Sanquelim	19. Pale
	20. Surla
South Goa District:	
C. H. C., Curchorem	21. Dabal (Codli)
P. H. C., Quepem	22. Rivona
C. H. C., Canacona	23. Molorem (Cola)
	24. Agonda
	25. Maxem (Loliem)
P. H. C., Sanguem	26. Colem
	27. Netorli
P. H. C., Bali	28. Cuncolim
P. H. C., Chinchinim	29. Orlim (Carmona)

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### Annexure - III

#### LIST OF SUB-CENTRES, CHC / PHC –WISE

**(1) C.H.C. CANACONA**

1 Poinguinim	8 Choraundem (ICDS)
2 Gadongrim	9 Melauli (ICDS)
3 Bhatpal	10 Zormen (ICDS)
4 Colomb	11 Sirsodem (ICDS)
5 Agonda	12 Shignem (Ponocem)(ICDS)
6 Cola	13 Bambar (Nanodrem) (ICDS)
7 Loliem	
8 Cotigo	

**(2) C.H.C. PERNEM**

1 Pernem (ICDS)
2 Querim
3 Arambol
4 Corgao
5 Mandrem
6 Agarvado
7 Tuem
8 Pernem (Rural)

**(5) C.H.C. CURCHOREM**

1 Assolda
2 Codli
3 Bandoli
4 Sanvordem
5 Panchvadi
6 Curchorem
7 Xeldem
8 Periudoc (Sanvordem) (ICDS)

- |     |                      |     |                        |
|-----|----------------------|-----|------------------------|
| 9   | Parcem (ICDS)        | (6) | <b>P.H.C. CURTORIM</b> |
|     |                      | 1   | St. Jose de Areal      |
| (3) | <b>C.H.C. PONDA</b>  | 2   | Navelim                |
| 1   | Candepar             | 3   | Gantamorod (Aquem)     |
| 2   | Bandora              | 4   | Chandor                |
| 3   | Betora               | 5   | Davorlim               |
| 4   | Vaddi-Talaulim       | 6   | Dramapur               |
| 5   | Querim               | 7   | Macazana               |
| 6   | Queula               |     |                        |
| 7   | Usgao (Nanus)        | (7) | <b>P.H.C. BALI</b>     |
| 8   | Savoi-Verem          | 1   | Fatorpa                |
| 9   | Vagurben (Murdi)     | 2   | Morpila                |
| (4) | <b>C.H.C. Valpoi</b> | 3   | Quitol                 |
| 1   | Nagargao             | 4   | Barcem                 |
| 2   | Pissurlem            | 5   | Velim                  |
| 3   | Poriem               | 6   | Cuncolim               |
| 4   | Surla                | 7   | Viroda (Cuncolim)      |
| 5   | Compordem            |     |                        |
| 6   | Sanvordem            |     |                        |
| 7   | Cotorem              |     |                        |

**An n e x u r e - III (Contd...)**

**LIST OF SUB-CENTRES , CHC / PHC –WISE**

- |           |                              |           |                            |
|-----------|------------------------------|-----------|----------------------------|
| <b>8</b>  | <b>P.H.C. Bicholim</b>       |           |                            |
|           | 1. Maem                      |           |                            |
|           | 2. Nanora                    | <b>14</b> | <b>P.H.C. Candolim</b>     |
|           | 3. Salem                     |           | 1. Nerul                   |
|           | 4. Piligao (ICDS)            |           | 2. Reis Magos              |
|           | 5. Mencurem (ICDS)           |           | 3. Sangolda                |
|           | 6. Mulgao (ICDS)             |           | 4. Saligao                 |
|           | 7. Adwalpale (ICDS)          |           | 5. Calangute               |
|           | 8. Curchirem (ICDS)          |           | 6. Arpora                  |
| <b>9</b>  | <b>P.H.C. Sanquelim</b>      | <b>15</b> | <b>P.H.C. Cansarvornem</b> |
|           | 1. Amona                     |           | 1. Varconda (Nagzar)       |
|           | 2. Karapur (ICDS)            |           | 2. Cansarvornem            |
|           | 3. Pale                      |           | 3. Thalarna (Alorna)       |
|           | 4. Surla                     |           | 4. Ibrampur                |
|           | 5. Velguem (ICDS)            |           | 5. Tamboxem                |
|           | 6. Gauthane (Arvalem) (ICDS) |           | 6. Torxem                  |
|           | 7. Viridi                    |           | 7. Assapur (ICDS)          |
| <b>10</b> | <b>P.H.C. Shiroda</b>        | <b>16</b> | <b>P.H.C. Corlim</b>       |
|           | 1. Borim                     |           | 1. Batim                   |

- |  |   |
|--|---|
| <p>2. Vazangal (Shiroda)<br/>3. Paaz (Shiroda)<br/>4. Nirancal</p> <p><b>11 P.H.C. Marcaim</b><br/>1. Cundaim<br/>2. Marcaim (Gavanem)<br/>3. Priol<br/>4. Velinga</p> <p><b>12 P.H.C. Quepem</b><br/>1. Cotombi<br/>2. Molcorem<br/>3. Rivona<br/>4. Cavorem<br/>5. Deao<br/>6. Ambaulim</p> <p><b>13 P.H.C. Aldona</b><br/>1. Pomburpa<br/>2. Calvim<br/>3. Corjuem<br/>4. Moira<br/>5. Bastora<br/>6. Salvador-d0-Mundo<br/>7. Socorro<br/>8. Penha-de-Franca</p> | <p>2. Taleigao (Borbot)<br/>3. Taleigao (St. Paul)<br/>4. Goltim (Divar)<br/>5. Mercedes<br/>6. Ella<br/>7. Siridao<br/>8. Bambolim</p> <p><b>17 P.H.C. Betki</b><br/>1. Neura-O-Grande<br/>2. Boma<br/>3. Orgao<br/>4. Chorao<br/>5. Jua (St. Estevam)<br/>6. Cumbarjuva<br/>7. Chimbel</p> <p><b>18. P.H.C. Siolim</b><br/>1. Guirim<br/>2. Assagao<br/>3. Anjuna<br/>4. Oxel<br/>5. Siolim<br/>6. Sodiem<br/>7. Verla<br/>8. Parra</p> |
|--|---|

### Annexure - III (Contd...)

#### LIST OF SUB-CENTRES , CHC / PHC –WISE

- |  |   |
|--|---|
| <p><b>19 P.H.C. Colvale</b><br/>1. Pirna<br/>2. Tivim<br/>3. Assonora<br/>4. Camurlim</p> <p><b>20 P.H.C. Chinchinim</b><br/>1. Sazora<br/>2. Ambelim<br/>3. Chinchinim<br/>4. Varca<br/>5. Carmona<br/>6. Cavelossim</p> <p><b>21 P.H.C. Sanguem</b><br/>1. Sancordem<br/>2. Darbandora<br/>3. Calem<br/>4. Colem</p> | <p><b>22 P. H. C. Cansaulim</b><br/>1. Seraulim<br/>2. Betalbatim<br/>3. Benaulim-cana<br/>4. Benaulim<br/>5. Arossim<br/>6. Majorda<br/>7. Velsao</p> <p><b>23 P.H.C. Loutolim</b><br/>1. Loutolim<br/>2. Raia<br/>3. Ilha de Rachol<br/>4. Nuvem</p> <p><b>24 P.H.C. Cortalim</b><br/>1. Verna<br/>2. Naquelim Chicalim<br/>3. Consua</p> |
|--|---|

- |                       |                        |
|-----------------------|------------------------|
| 5. Bati               | 4. Sindolum (Sancoale) |
| 6. Uguem              | 5. Quelossim           |
| 7. Valkini            |                        |
| 8. Sanguem            |                        |
| 9. Netorli            |                        |
| 10. Sigao (ICDS)      |                        |
| 11. Vichundrem (ICDS) |                        |
| 12. Verlem (ICDS)     |                        |

**ANNEXURE IV**

**TELEPHONE NUMBERS OF HOSPITALS AND HEALTH  
CENTRES UNDER  
DIRECTORATE OF HEALTH SERVICES**

<b><u>Hospitals under DHS</u></b>	<b><u>Office Phone Nos.</u></b>
1. Asilo Hospital, Mapusa	2265119/2262372
2. Hospicio Hospital, Margao	2705167/2735972
3. Cottage Hospital, Chicalim	2540864
4 T.B. Hospital Margao	2714866
5 Drug Dexocation	2254444
6 Leprosy Hospital Macazana	2786276
<b><u>Community Health Centres</u></b>	
1. Canacona	2643339/2643422
2. Curchorem	2650566
3. Pernem	2201249
4. Valpoi	2374260
5. Ponda	2312115

**Primary Health Centres**

1. Aldona	2293251
2. Balli	2670216
3. Betki	2287160
4. Bicholim	2362050/2362041
5. Candolim	2489035
6. Cansaulim	2754036
7. Cansarvarnem	2205222
8. Cortalim	2550274
9. Corlim	2285769
10. Curtorim	2786206
11. Marcaim	2392230
12. Sanguem	2604235
13. Sanquelim	2364258
14. Shiroda	2307072
15. Siolim	2272250
16 PHC Quepem	2662636
17 PHC Lotolim	2777140
18 PHC Colval	2299870
19 Tisk Usgao	2344221

**Urban Health Centres**

1. Panaji	2426495
2 Margao	2715004
3 Mapusa	2262226
4 Vasco	2512307

**Two Mobile UNIT One in North and other in South.**

**Annexure-V**

**FORM - A**

**MEDICAL CERTIFICATE**

This is to certify that the patient .....  
..... is suffering from .....  
.....

facilities for treatment of which are not available in this State. The patient is,  
therefore, advised to seek such facility outside this State.

.....  
**Signature of Medical  
Superintendent  
Goa Medical College**

**Office Seal.**

**Annexure -VI**

**FORM - B**

**INCOME CERTIFICATE**

This is to certify that ..... is a permanent resident of Goa having residence at..... H.No.....Ward.....Village....., taluka.....

and that his income and that of the members of the family from all sources does not exceed Rs.1,50,000/- per annum.

It is further certified that..... is a voter and his/her name is registered at Sr.No.....of Voters list/holding permanent Ration Card No..... maintained in this office.

It is certified that..... parent/guardian of the minor is a voter and his name is registered at Sr.No..... of voters List/holding permanent Ration Card No..... maintained in this office.

.....  
**Signature  
Mamlatdar**

**Office Seal**

**Annexure-VII**

**F O R M - C**

**(Application for Self Treatment under Mediclaim Scheme)**

Name:-.....

Address:-.....

.....

Dated:- / /2004

To,  
**The Director,  
Directorate of Health Services,  
Panaji Goa.**

**Sub: Treatment under Mediclaim Scheme.**

Sir,

I have to proceed to ..... (place)for Medical treatment at ..... ( Name of Hospital) as required under the scheme, I am submitting herewith the following certificate:-

- (i) Certificate from the Medical Superintendent, Goa Medical College/ Directorate of Health Services that facilities for my treatment are not

available.

- (ii) Certificate from the Mamlatdar of .....  
certifying that total income of my family members does not exceed  
Rs. 1,50,000/- per annum and that I am registered in the voter's list.

**OR**

- (iii) Certified copy of the P.P.O. bearing No. .... confirming that  
the patient is a retired State Government Employee.

I shall be obliged if a letter recommended me for medical treatment  
at ..... (name of hospital) is kindly issued to  
me immediately for admission in the hospital.

Yours faithfully,

Encl: As above.

**( Signature )**

**Annexure - VIII**

**FORM - D**

(Application for treatment under the Mediclaim to be submitted on behalf of the patient  
when the patient is minor)

Name:-.....

Address:-.....

.....

Dated:- / /2004

To,  
**The Director,**  
**Directorate of Health Services,**  
**Panaji Goa.**

**Sub: Treatment under Mediclaim Scheme.**

Sir,

My ..... ( relationship) .....  
..... (name of the patient) is to be  
taken to ..... (place) for medical treatment at .....  
..... (name of the hospital) as required under  
the scheme. The following certificate are submitted:-

- (i) Certificate from the Medical Superintendent, Goa Medical College, Bambolim that facilities for his/her treatment are not available in this State.
- (ii) Certificate from the Mamlatdar of ..... (taluka) that the total income of my/his family does not exceed Rs.1,50,000/- per annum and that he/she is registered in the voter's list (not applicable if minor)
- (iii) Certified copy P.P.O. bearing No. .... certifying that the patient is a retired Government employee.

I shall be obliged if a letter recommending him/her for treatment .....  
..... ( name of the hospital, Place) is kindly issued to me immediately for admission in the hospital.

Yours faithfully,

**( Signature)**

**Annexure - IX**

No: DHS/MED/F. /02-03/  
Directorate of Health Services,  
Campal, Panaji Goa.  
Dated:

**FORM - E**

( Format of undertaking to be given to the Hospital/patient in respect of treatment and payment).

Dear Sir,

This is to certify that Shri/Smt. ....  
is eligible for benefits under Mediclaim Scheme of Government of Goa.

The reimbursement per illness under the Mediclaim Scheme will be limited to Rs. 1,50,000/- or actual Hospital expenses, whichever is the least, in respect of the following:-

- (1) Room, board and nursing expenses including surcharge, if any limited to Rs. 250/- per day;
- (2) I.C.U.;
- (3) Surgeon's and Anaesthetists fees;
- (4) Anaesthesia, blood, oxygen, operation theatre, surgical appliances;
- (5) Diagnostic materials and X-Ray;
- (6) Medical practitioner's, consultants and specialists fees;
- (7) Medicines & Drugs.

Shri/Smt. \_\_\_\_\_  
has been advised \_\_\_\_\_  
\_\_\_\_\_

We enclose a xerox copy of the certificate dated \_\_\_\_\_ issued by the Medical Superintendent, Goa Medical College and undertake to reimburse you upto Rs. 1,50,000/- on receipt of your bills.

Kindly admit/him/her and render necessary treatment and send us the claim form and your bills, duly signed by the patient, for settlement.

Thanking you in anticipation.

Yours faithfully,

**Director of Health**

**Services.**

Copy forwarded to:-

- (1) Shri/Smt. \_\_\_\_\_
- (2) Jt. Secretary (Health), Public Health Department, Secretariat Annexe, 3rd Floor, Junta House, Panaji, Goa, for information.

## Annexure - X

### Abbreviations used

ADHAR	Aid Directed towards Health and Aids Rehabilitation
AIDS	Acquired Immuno Deficiency Syndrom
ANM	Auxiliary Nurse Midwife
ARI	Acute Respiratory Infections
BPL	Below Poverty Line
CHC	Community Health Centre
DOTS	Directly Observed Treatment Short Course
DTC	District tuberculosis Society
ECG	Electro Cardio Graph
EDPT	Early Detection and Prompt Treatment
ENT	Ear, Nose and Throat
FHAC	Family Health Awareness Campaign
FTD	Fever Treatment Depot
GMC	Goa Medical College
GOI	Government of India
GSACS	Goa State Aids Control Society
HC	Health Centre
HIV	Human Immune Deficiency
HO	Health Officer
ICMR	Indian Council of medical Research
IDSP	Integrated Disease Surveillance Programme
IEC	Information, Education and Communication
IPD	In patient department
IVRS	Interactive Voice Response System
JSY	Janani Suraksha Yojana
MC	Microscopy Centres
MCI	Medical Council of India
MCW	Maternity and Child Welfare
MO	Medical Officer
MoHFW	Ministry of Health and Family Welfare
MPHW (F)	Multi-purpose health worker, male
MPHW (M)	Multi-purpose health worker, female
MRC	Malaria Research Centre
MSS	Mahila Swasthya Sangh
MTCT	Mother-to-Child Transmission
MTP	Medical Termination of Pregnancy
NGO	Non-governmental Organisation
NIDDCP	National Iodine Deficiency Disorder Control Programme
NSPCD	National Surveillance Programme for Communicable Diseases
NSV	Non Scalpel Vasectomy
OPD	Out Patient Department
ORS	Oral rehydration Solution
PHC	Primary Health Centre
PNDT	Preconception and Prenatal Diagnostic Technique
PPTCT	Prevention of Parent-to-Child Transmission
RCH	Reproductive and Child Health
RMD	Rural Medical Dispensary
RMO	Rural medical officer
RNTCP	Revised National Tuberculosis Control Programme
RRT	Rapid Response Team
RTI	Reproductive Tract Infections
SC	Sub centre
SET	Survey, Education and Treatment
STD	Sexually Transmitted Disease
SVC	Selective Vector Control
TB	Tuberculosis
TT	Tetanus Texoid
UHC	Urban Health Centre
VCTC	Voluntary Counseling and Testing Centres
WHO	World Health Organisation

Public Grievance officer : Dy. Director Public Health

Public Contact officer : Shri Anil Kumar  
Dy, Director H.I.B.

Public Information Officer : Anil Kumar  
Dy, Director (HIB)

Officer In-charge of Mediclaim Scheme : Jt. Director accounts (Health)

# STATISTICAL DESIGN OF RESEARCH STUDIES

BY

ANIL KUMAR,  
Deputy Director (HIB)  
Directorate of Health Services,  
Campal, Goa 403005

Statistical design of a research study means, planning the study in the scientific manner so that the objective of the study is fulfilled to facilitate meaningful interpretations of the data collected during the study. It is extremely important to allow adequate time for careful and through planning of any investigation so that the objective of the study are fully achieved. Planning of the whole operation of the study should be done before any steps are taken to execute it. The Planning of research investigations call for statistical advice . It should be kept in mind that the planning stage of the study and continues till the evaluation and interpretations of the results are done.

In the planning of an investigation a number of technical and administrative problems are likely to arise. Two aspects of the planning are of particular concern to the statistician. The investigator will wish the inferences from the study to be sufficiently precise; he will also wish the results to be relevant to the questions he is asking. Discussions of the statistical design of investigations are concerned especially with the general considerations which bear on these two objectives. Some of the specific questions which arises are

- (i) how to select the individuals on which observations are made
- (ii) how to decide the no. of observations falling into different groups, and
- (iii) how to allocate observations between different possible categories of individuals, such as groups of animals receiving different treatments or groups of people living in different areas. In addition to above specific questions, these are number of other points which need a through discussion at the planning stage.

In the foregoing sections some of these aspects have been discussed .The general principles discussed in the foregoing sections applies both to design of surveys as well as to experiments.

All research investigators can be broadly classified into three phases

1. Planning of research project
2. Execution of the investigation
3. Meaningful interpretations of the results

Stages (1) and (3) involve the applications of statistical methodologies.

The planning of any research investigation involves the consideration of the following points.

#### Subject matter coverage:

The subjects for the study are to be carefully decided and may include different conditions or stages of a disease such as acute or chronic conditions and so on depending upon the aims and objectives of the study.

#### Definitions and concepts involved in the study:

1. Theoretical concepts of units of study.
2. Operational definitions of terms such as mild, moderate, severe etc. or adequate, satisfactory etc.
3. Standardization of the above terminologies.

#### Population Coverage:

Results obtained on one group or area cannot be generalized to the other groups or areas. As such the population to be covered and its limitations should be kept in mind. Some of the different categories of populations are:

1. Institutional populations.
2. Special groups of populations such as armed personnel, factory workers, school children etc.
3. Population suffering from special types or stages of diseases.
4. Population of different age groups.

#### Time Coverage:

1. Temporal trend over years or seasonal trend over months should be kept in mind while designing a study.
2. The duration and type of the study should be decided depending upon the problem and as such the study may be a cross sanctioned one, a longitudinal study or a cohort study.

Sample Design: (How to select the individuals on which observations are to be made) .

1. Investigations may be carried out on an entire group or a representative (Probability) sample taken out of the group.
2. Whenever a sample is selected it should be a random sample.
3. While selecting samples the heterogeneity within the group should be kept in mind and proper stratification and clustering should be made before selection of samples.

Some of the different types of sample design are:

- a) Simple Random Sampling
- b) Stratified Random Sampling
- c) Systematic Random Sampling
- d) Multistage Sampling

Random allocation of treatments to the groups (How to allocate observations between categories of individuals) .

In order to remove bias, the treatment to different groups / individuals should be allocated randomly. Random allocation can be done by using random number tables or tossing a coin or by drawing chits.

The two other important principles of experiments design are replication and local control.

Replication implies the use of more than one experimental unit for each treatment. Through the local control, a reduction in random variability between the experimental units can be attempted. The groups are made as homogeneous as possible.

**Selection of Proper controls:** Proper controls are to be included in the study to attribute any characteristics or change to a particular variable. The different types of controls are

- a) Retrospective controls
- b) Patient as his own control
- c) Concurrent controls

**The size of a statistical investigation (How to decide on the number of observations falling into different groups):**

The size of the samples should be carefully fixed so that the sample size will be adequate to draw valid conclusions. The fixation of the adequate size of the samples requires certain knowledge about the problem under investigation in the population under study and also the sub-classifications of the sample for analysis.

**Recording:**

The information collected during the study is to be recorded on pre-designed proforma or schedules. The design of the records depends on the facilities for analysis.

**Investigation methodology:**

All the Investigations are to be listed out and the chronically order of the investigations should be predefined.

**Personnel and Time Schedule:**

The type of Personnel required for the study should be predefined and the type of work and the amount of work to be done by each person in the study should be worked out.

**Budget and costing of the Study:**

It is essential to see the economies and cost effectiveness of the study.

## Investigational errors in the study:

Two types of errors can creep in the course of the study.

Response error due to under coverage of the sample or non-co-operation of patients or death of patients .Such errors can be reduced by perseverant efforts of the investigations, and also proper planning of the sample size allowing for mortalities etc.

This can be reduced by standardization of techniques and proper training of personnel.

### Tabulation

Various tables that are required for interpretation should be worked out in the planning stage of investigation.

### Analytical methods

The estimation procedures and ensuring the availability of evaluation data should be kept in mind.

During the collection of data following principles should be kept in mind.

1. Collection without prebiased ideas about the outcome.
2. Honestly and sincerity of the collection.
3. Standardization of techniques.
4. Uniformity of definition
5. Minimal personal bias.

Statistical techniques can not rectify mistakes due to carelessness according of data or dishonest collection or faulty planning.

Expected Next Publications: 1. Planning and Analysis of Health Surveys  
2.. Role of Survey Statistics in Medical Prospective.

**Annexure - I : LIST OF HOSPITALS / CHCs / PHCs / UHCs / RMDs / DISPENSARIES UNDER THE DIRECTORATE OF HEALTH WITH BED STRENGTH NO. OF DOCTORS, NURSES, M.P.H.W. ETC AS ON December 2006**

Name of the institution/ District	No. of beds	No. of Doctors					No. of P.H. Dentists	No. of Nurses (Staff Nurses Male/Female Nurse, Matron, Asstt. Matron, PHN Ward Sister/Ward Master)	M.P.H.W.		Pharmacist/ Compounder
		Allopathic		Homeo- pathic	Ayu- r- vadic	Total			Male	Female	
		Specialist	Others								
1	2	3	4	5	6	7	8	9	10	11	12
<b>NORTH GOA DISTRICT</b>											
<b>Hospitals</b>											
1. Asilo Hospital Mapusa	190	22	21	-	1	44	-	72	-	2	5
<b>Community Health Centre</b>											
<b>1 CHC Ponda</b>	<b>72</b>	<b>4</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>8</b>	<b>1</b>	<b>19</b>	<b>10</b>	<b>12</b>	<b>2</b>
2. CHC Pernem	40	3	5	1	-	9	1	10	9	12	1
3. CHC Valpoi	30	4	5	-	-	9	1	10	10	15	2
<b>Primary Health Centre</b>											
1. PHC Bicholim	30	-	5	-	1	6	1	9	4	10	1
2. PHC Aldona	14	-	4	-	-	4	1	5	10	11	1
3. PHC Candolim	12	-	4	-	-	4	1	5	8	9	1
4. PHC Betki	12	-	4	-	-	4	1	5	9	10	1
5. PHC Siolim	12	-	4	-	-	4	-	5	8	8	1
6. PHC Marcaim	12	-	4	-	-	4	-	7	4	4	1
7. PHC Cansarvanem	12	-	4	-	-	4	-	5	7	8	1
8. PHC Sanquelim	30	-	4	-	-	4	-	6	3	7	2
9. PHC Shiroda	12	-	4	-	-	4	-	6	4	4	1
10. PHC Colvale	-	-	1	-	-	1	-	2	4	4	1
11. PHC Corlim	-	-	1	-	-	1	-	2	8	8	1
<b>Urban Health Centres</b>											
1. U.H.C. Panaji	-	-	3	1	-	4	1	3	4	-	-
2. U.H.C. Mapusa	-	-	2	-	-	2	1	3	2	-	-
<b>Rural Medical Dispensaries (18 Nos.)</b>	-	-	18	-	-	18-	-	-	-	-	18

**Annexure - I(contd..) : LIST OF HOSPITALS/CHCs/PHCs/UHCS/RMDs/DISPENSARIES UNDER THE DIRECTORATE OF HEALTH SERVICES WITH BED STRENGTH, NO. OF DOCTORS, NURSES, M.P.H.W. ETC AS ON December 2006**

Name of the institution/ District	No. of beds	No. of Doctors					No. of P.H. Dentists	No. of Nurses (Staff Nurses Male/Female Nurse, Matron, Asstt. Matron, PHN Ward Sister/Ward Master)	M.P.H.W.		Pharmacist / Compounder	Technician		L.H.V.
		Allopathic		Homeo- pathic	Ayur- vadi c	Total			Male	Female		X Ray Technician	Lab. Technician	
		Specialist	Others											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>SOUTH GOA DISTRICT</b>														
<b>Hospitals</b>														
1. Hospicio Hospital, Margao	230	24	29	-	1	54	-	97	-	2	7	8	8	-
2. Cottage Hospital Chicalim	60	5	4	-	1-	10	-	10	-	2	2	1	1	-
3. Leprosy Hospital Macasana	150	-	-	-	-	-	-	9	-	-	-	-	1	-
1. T.B. Hospital Margao	180	-	5	-	-	5	-	38	-	-	4	2	2	-
2.														
<b>Community Health Centre</b>														
1. C.H.C. Curchorem	50	3	5	-	-	9	1	14	9	10	1	2	1	1
2. CHC Canacona	30	6	4	-	1	11	1	15	10	12	2	1	2	1
<b>Primary Health Centre</b>														
1. PHC Sanguem	20	-	4	-	-	4	1	6	11	16	1	-	1	2
2. PHC Cansaulim	12	-	4	-	-	4	1	5	9	10	1	-	1	1
3. PHC Curtorim	12	-	4	-	-	4	1	5	9	10	1	-	1	1
4. PHC Bali	12	-	4	-	-	4	1	5	9	11	1	-	1	1
5. PHC Chinchinim	-	-	1	-	-	1	-	2	5	6	1	-	1	1
6. PHC Loutolim	-	-	1	-	-	1	-	2	4	4	1	-	1	-
7. PHC Cortalim	-	-	1	-	-	1	-	2	5	5	1	-	1	1
8. PHC Quepem	-	-	1	-	-	1	-	2	6	6	1	-	1	1
<b>Urban Health Centres</b>														
1. U.H.C. Margao	-	-	2	-	-	2	1	4	4	-	-	-	-	-
2. U.H.C. Vasco	-	-	1	-	-	1	1	2	5	-	-	-	-	-
<b>Rural Medical Dispensaries (10 Nos.)</b>	-	-	10	-	-	10-	-	-	-	-	10	-	-	-