SILENT REVOLUTION FOR RURAL EMPOWERMENT

Vision & Concept

FOR EQUALITY IN HEALTH CARE

Prof. (Dr.) N. Sridhar Shetty B.D.S. M.D.S. (Prosth)
Prosthodontist & Implantologist
Director,
Center For Advanced Dento-facial Stomatognathic Sciences, Nitte University

Founder Dean
A.B.Shetty Memorial Institute of Dental Sciences, Nitte University
Deralakatte, Mangalore – 575018, Karnataka, India

SILENT REVOLUTION FOR RURAL EMPOWERMENT

Vision & Concept

FOR EQUALITY IN HEALTH CARE

"INSTITUTIONALIZED APPROACH - TOTAL HEALTH CARE FOR RURAL AND SEMI URBAN POPULATION AT THE DOOR STEP - FREE OF COST"

This proposal is envisaged and prepared for a health system to be developed for a continuous and progressive improvement of the health status and economic progression of the rural population and semi urban population for equality in health care and empowerment

PROF. (Dr.) N. SRIDHAR SHETTY B.D.S. M.D.S.(Prostho)
Prosthodontist & Implantologist

DIRECTOR,
CENTER FOR ADVANCED DENTO FACIAL STOMATOGNATHIC SCIENCES, NITTE UNIVERSITY

FOUNDER DEAN
A.B.SHETTY MEMORIAL INSTITUTE OF DENTAL SCIENCES,
DERALAKATTE, MANGALORE – 575018, KARNATAKA, INDIA

To,

All those benighted and under privileged rural population of India who are not Aware and have not been able to Avail, Access or Afford Health care.

Printed & Published by: Nitte University

Center For Advanced Dento-facial Stomatognathic Sciences
A.B. Shetty Memorial Institute of Dental Sciences, Nitte University
Deralakatte, Mangalore - 575 018, Karnataka, India

Price: ₹ 300/-

PREFACE

Health services in India imitate, as in west, where specialists in clinics or hospitals treat patients only at cities with population of 154 million *(53 cities with population more than one million people - Mega cities, and million plus other cities)*, at Tertiary Health Care centers: Teaching hospitals and institutions and other Apex Hospitals and also at Secondary Health Care centers: District Hospitals and Community Health Centers. This works well only if there is Awareness, Availability, Accessibility, and Affordability for higher therapeutic facilities, to provide equality in health care for "the present population of 1.188 billion" in rural and semi urban areas of India.

While working in the Government Dental College, Bangalore as a faculty member for 13 years, I had personally witnessed the hardships faced by the poor patients coming for the treatment to Victoria hospital complex, Bangalore. Despite arriving from distant rural areas,they had still not been able to Avail, Access or Afford the facilities due to several historical reasons. Many a times, the patients had to return without having the required attention or even the treatment. The despair amongst the poor patients especially from rural areas had then left an indelible impression in my mind with a vow to alleviate their sufferings.

After I had assumed the office of the Dean in 1985, at the A.B. Shetty Memorial Institute of Dental Sciences (now constituent college of Nitte University) my past indelible impression and concern to attend to the despair amongst the poor patients especially from rural areas was rekindled by the vision of the Founder of Nitte education Trust, Hon'ble Justice K S Hegde -"Education, Employment, and Health has crucial role in shaping the living condition of the people, especially the Rural population".

I was able to realize my dreams by conceptualizing and implementing, at a teaching institute my vision and concept **"Institutionalized Approach - Total Health Care For Rural And Semi Urban Population At The Door Step - Free Of Cost" for equality of health care.** This concept was envisaged and prepared for a health system to be developed for a continuous and progressive improvement of the health status and economic progression of the rural and semi urban population. This vision and concept has been practiced and tested at the dental teaching institution.

My endeavour has been fully supported and also appreciated by my friend and colleague, Sri. N.V Hegde, Chancellor, Nitte University. Despite the involvement of large financial and administration commitment, with great support and encouragement, he has approved and permitted to implement this concept,at the teaching institution, A B Shetty Memorial Institute of Dental Sciences.

Under this project, public health and dento-oral awareness is created by house to house visit. Health awareness programme is further expanded by conducting street plays and organizing Awareness/Treatment camps. Patients are treated

for dento-orofacial diseases at the institution's established rural satellite centers. Further, patients who required advanced treatments, are brought to nucleus hospital (dental teaching institution) and patients are treated free of cost. This endeavor has involved a total cost of Rs. 4.305 billion as of July 2012. Over 1.5 million rural poor patients have been treated, free of cost (July 2006), and more than 2 million by 2012 at the cost of Rs. 2.5 Billion. From 1987-2012 advanced treatments (costing Rs 1,805,562,638) were provided free of cost at the nucleus hospital , A B Shetty memorial institute of Dental Sciences, to treat the diseases of the Stomatognathic system, which is a prime organ of the human body that formulates the vital chain by its function which in turn is the basis of human existence.

The *endeavour* is still on with greater enthusiasm. Its success has emboldened me to present this paper as project report in 2006 and published, with required modifications for approval and adoption by all those concerned. Now this concept and vision is published as a book titled **"SILENT REVOLUTION FOR RURAL EMPOWERMENT- VISION& CONCEPT FOR EQUALITY IN HEALTH CARE".**

Health Science teaching institutions can also easily adopt this vision and concept and provide Awareness, Availability, Accessibility, and Affordability for higher therapeutic facilities for ***equality of health care,*** with economic progression for total health care of "the present population of 1.188 billion" in rural and semi urban areas of India. Specialists will have the opportunity and would be proud to facilitate for equality in health care among the Indian population.

It will create vibrant health care facilities with excellent infrastructure in the rural and semi urban areas, which is almost absent today. This vision will help in creation of specialized cadre of health professionals to serve the masses, particularly poor and underprivileged with the dedication and commitment; which will ensure health for all as enshrined in our constitution. This also envisages economic progression of the rural masses in addition to providing them the much needed health care facilities. Improved health status and healthy mind of the masses will generate wealth for the nation, with the higher productivity and all-round prosperity. This will ensure transparency, professionalism and 100% delivery of the benefits to the needy.

This envision of a health care delivery system with intelligent networking amongst government and private health care institutions will ensure total health care for rural and semi urban population at their doorsteps, free of cost. Along with economic progression.this will fulfill the dream of equality in health care and it will provide a health care delivery system free of cost at the doorsteps of those who cannot afford the same.

I am confident and I fondly hope that my ambitious vision and concept will culminate into a reality: ***"Health for all with quality life".***

Date: 22 November 2013 **Prof. (Dr.) N. Sridhar Shetty**

Recipient of Dr. B.C. Roy National Award
Medico-Social Relief

Discipline is the gate way of learning.
Education is to experience knowledge
& to progress our mind for better social living

FOUNDER

Justice K.S Hegde
(1909-1990)
Judge of Supreme Court of India & Speaker of Lok Sabha
Statesman and Visionary

"Education, employment and health has a crucial role in shaping the living conditions of the people, especially the rural population"

Rural India was dear to Justice Kowdoor Sadananda Hegde, even when he moved from his village in South Kanara to New Delhi to become the judge of the Supreme Court of India. It was his innate desire to enrich rural life, which beckoned him back to his native village, after completing a distinguished career.

He believed that education has a crucial role in shaping the living conditions of people, especially in the rural areas. His perpetual dream for a better world triggered a social revolution in Dakshina Kannada. His dream was made reality, when in 1979; the Nitte Education Trust was founded at a small village called Nitte, transforming it into an ultimate abode of learning for students from all over the country and abroad.

The first step he took in that direction was the establishment of a primary school at Nitte, a sleepy little village in 1979. Little did the people around realize then that he laid the foundation for an educational organization of immense potentiality. What started as a dream project is today a monumental reality, encompassing under its gamut 28 institutions, 20 satellite rural health centres with 1200 bed medical hospital and a dental hospital with state-of-art equipments, specialists, diagnostic and therapeutic facilities as the hub.

The educational institutions offer school, collegiate and professional courses located on three campuses at Nitte, Mangalore and Bangalore. In 2008 Nitte University was established with the A.B.Shetty Memorial Institute of Dental Sciences as its first constituent college and in 2009 four more health sciences institutions were brought under its ambit.

The efforts of the Trust are not restricted to providing education alone. The adage, love thy neighbor has been put into practice by the Trust since long. During the last 34 years, the Trust has taken up several socioeconomic developmental programs. The basic tenet is that the generation of employment opportunities in the village makes the major contribution to economic welfare of the rural society. Health is the next important input that contributes to human welfare. Hence, by utilizing the facilities available with the institutions, healthcare programs are taken up.

Always in pursuit of truth and excellence of human endeavour, Justice K S Hegde began a journey of exploration that continues with Nitte Education Trust and Nitte University.

N. V. Hegde
Chancellor Nitte University
President – Nitte Education Trust

"Let us make Nitte University and Nitte Education Trust a lustrous seat of knowledge in empowering lives."

What started as health check up camps for medical relief at Nitte village, way back in the mid 1970s, has now become a planned activity. Today, Nitte Education Trust has a network of 20 rural health centres with the 1200 bed medical hospital and the dental hospital with state- of- the- art equipments, manpower with specialized knowledge and higher skills, requisite infrastructure supported with diagnostic and therapeutic facilities as the hub.

Medical camps were conducted as a commitment to community health-care. Our efforts were strengthened when in 1985 the Trust started the Dental College - A B Shetty Memorial Institute of Dental Sciences. The community oral health programme, treatment and awareness camps extending to rural and small towns got the much needed momentum. Rural satellite health centers were started in the early 1990s. This was perhaps one of its kind extension activity to rural areas and also a very novel approach to addressing the problems of the community. The total health-care provided to the rural and semi-urban areas is at free of cost. The students also got an opportunity to understand community issues and empathize with the rural populace. The starting of the Medical College and Hospital, gave further impetus to this effort.

A healthy society not only brings robustness but also helps in enhancing the material well-being and economic prosperity. Our health sciences institutions, especially the dental and medical colleges are working with a missionary zeal to achieve this.

When we look back we feel quite satisfied that this approach has come to stay as a sustainable approach and is meeting the objectives for which these satellite centres were started.

The magnitude of the task is nothing less than colossal. The Trust follows the principle of altruism. It is the welfare of its neighbourhood which it believes is its ultimate objective. Truly, the community development program is christened "Nerekare Kshema" (well being of neighbourhood). The Trust involves in all activities of every single family of the village, so that it becomes the focal point in their economic revival, in offering good education, in providing job prospects and affordable health care.

We will continue to remain steadfast in our keenness to serve the community, which is what the Founder of Nitte Education Trust, late Justice K S Hegde envisioned. This, we believe, would be a befitting tribute to him.

About the Author

Prof. Dr. N. Sridhar Shetty
Director,

Center for Advanced Dentofacial Stomatognathic Sciences, Nitte University

Founder Dean, A.B.Shetty Memorial Institute of Dental Sciences, Nitte University.

July 9th 1985 he was appointed as the Principal and Professor and Head of department of prosthodontics at the A.B.Shetty Memorial Institute of Dental Sciences, Mangalore, Karnataka, India (The first professional institution of Nitte Education Trust). He has developed this Institution as a prime institution of the country and also as one of the leading post graduate and research Institution in the country. . His students are in the profession with reputation all over the country and abroad as responsible, respected and kind professionals with prosperity.

To one of the best people I know, one who guided me not only in Prosthodontics, but in my life and ways. I am, and enternally will be, grateful to my teacher, my guide, my father figure and my friend. Words will never suffice to show how great it is to have a role model like you. HAPPY TEACHERS DAY.Forever your student. Rohit Fernandez

A. B. Shetty Memorial Institute of Dental Sciences, being the most reputed prime institution of the country, students seek admission as a choice in this institution for UG and PG courses. The qualified faculties are eager to join the institution for experience. He is revered and respected by his colleagues, students and their parents and gaurdians as a teacher, clinician, active researcher, able administrator, and disciplinarian and loved by all as friend, guide and philosopher. He is a renowned clinician with kind and friendly approach to patients. His friendly nature and openness has made him a popular colleague in the profession.

Eminent Teacher in the Field of Health Sciences (Dental Faculty)-2007

Truly a man who has worn many hats in his time, Dr. N. Sridhar Shetty has come a long way from a little boy in a small township to one of the best academician, able administrator and compassionate prosthodontist (specialist dental surgeon) of our country. It is not without reason that on Teachers Day 2007, the Rajiv Gandhi University of Health Sciences, Bangalore should deem it necessary to honor him as one of the most distinguished eminent Senior Teacher in the field of health Sciences and possibly this country, has ever known. He holds the record of serving as the ***Dean and Principal of a Single Institution for***

a tenure spanning more than 21 years. – The Premier Institution –A.B. Shetty Memorial Institute of Dental Sciences, Mangalore. As on date he has more than 48 years of teaching experience.

After his 21 years of untiring glorious tenure as a Dean of A.B.Shetty Memorial Institute of Dental Sciences, untiring glorious tenure on his retirement he continued as a Director at the Institution and developing Center for Advanced Dento-facial Stomatognathic Sciences.(CADSS) He opted to continue in the institution because of his love for this institution and friendship of Sri. N.V. Hegde Chancellor, Nitte University and President, Nitte Education Trust.

Professor (Dr) Nailady Sridhar Shetty, son of late Chittoor Manjayya Shetty, Kundapur, (Udupi dist.) and Nailady Bhavani Shetty was born on 9th July 1941 at Kundapur and belongs to well-known Nailady Family at Udupi Taluk, Karnataka, India. He is married to Mulky Kolnadu Pade Smt. Padmanayana Sridhar graduate in economics, daughter of Vakil late Perody Shamba Shetty, Karkala and Mulky Kolnad Padae Pushpavathi Shetty. His son, Dr. Gourav Sridhar Shetty, M.S.(Surgery) DNB (Cardio-thoracic) is a Consultant Pediatric Cardiac Surgeon at Narayana Hridayalaya Institute of Cardiac Sciences, Bangalore. He is married to Dr. Juthika, M.S.(ENT) Asst. professor, Ambedkar Medical College, Bangalore. His daughter Dr.(Mrs) Bhavana Rai , did her M.D.S. degree in the speciality of Prosthodontics and Implantology presently working at Kuwait Health Services. She is married to Prof. (Dr.) Anil Rai, Professor of Orthodontics, at present Consultant Orthodontist at Kuwait. At present his family is of ten members including four grand children Master Adith Rai, Master Tanush Rai, and granddaughters Saanvi Shetty and Tanishi shetty.

Prof. N. Sridhar Shetty did his primary and high school education at Kundapur. After passing the P.U.C. at St.Aloysius College, Mangalore, he joined the Govt. Dental College, Bangalore and obtained the B.D.S. degree in May 1965 from Bangalore University. Immediately after graduation, he joined the faculty position at the Govt. Dental College, Bangalore and served as a Lecturer. On completion of the M.D.S. post graduate degree in Prosthetic dentistry at Bombay University in April 1973, he rejoined the Govt. Dental College, Bangalore as an Asst. Professor. After teaching for more than 13 years, he resigned from government service in December, 1978. He then worked at Nairobi University, Kenya as well as Kartoum University Dental School, Sudan as Head of the department of prosthodontics till 1985. He joined as Principal at ABSMIDS, Mangalore on July 9th,1985 and after 21 years of service retired in August 2006 and presently working as director and Prof. Emeritus, CADSS, Nitte University.

He served as a member of various University academy bodies like academic council, syndicate and senate of Mangalore University. Chairman of the board of studies of Mangalore University .He served as the Dean of faculty of medicine, Mangalore University. He has been appointed as the Chairman of board of studies in dental surgery of the newly established Rajiv Gandhi University of Health Sciences, Bangalore and also as a Dean of dental faculty. He was a member of the syndicate senate and academic council of Rajiv Gandhi University. He was a member of board of studies at Banaras Hindu University and Goa University. He was also member of board of studies of Nairobi University, Kenya, Africa.

He is also the past President of Indian Academy of Dental Educationists for three years. He is the founder secretary of Indian Society of Gnathology.

A senior prosthodontist actively participating in the activities of Indian Prosthodontic society served as its President for two years from 1990 to 1992. He is the most sought after senior prosthodontist for academic activities and guidance in the Indian Prosthodontic Society.

He has published more than 50 papers in the national and international journals. He has guided 104 research projects and delivered lectures and oration lectures in professional society meetings.

Fellowships

Fellow International College of Dentists
Fellow Pierre Fouchard Academy
Fellow Academy Dentistry International
Charter member of International Academy of Gnathology

Dental Council of India – Statute Apex Body

In recognition of his popularity, the senate of the Mangalore University has elected him as the member of the Dental Council of India in the year 1988 and again he was re-elected with overwhelming majority as a Dental Council of India member representing Mangalore University for a further period of five years from 30.09.1993. He was again elected as a member of Dental Council of India amongst Dean's of the colleges in 2003. ***He served on the Dental Council of India for 15 Years as Active Member -*** was elected as Vice President of the Council for almost one full year in 1993 and again re-elected as Vice President unanimously for the second term from February 1994.

He held the office as acting President of Dental Council of India from 16.10.1994 to 08.10.1995 and was then elected as PRESIDENT OF THE DENTAL COUNCIL OF INDIA and held the office for 1995-1998.

During his tenure of President of Dental Council of India, the syllabus, curriculum for BDS and MDS courses (3 years) were revised and adopted by the Dental Council of India. The requirements for infrastructure, faculty, the clinical requirements (patients) subject wise was formulated for the first time and adopted by the Dental Council of India. As a requirement of Dental Council of India, awareness were created to all dental colleges to be developed

as independent institution headed by the Principal with all DDO powers. All the teaching institutions throughout the country were encouraged, guided, supervised with the positive outlook to develop the institutions of recognition with co-operation, and encouragement by the members of the Dental Council of India. The requisites of the teaching faculty and their teaching experiences in the subject were streamlined to give honor and recognitions to the faculty as well as for the speciality. Curricular development for graduate (BDS) and post graduate (MDS) to be apt with progress and development of science at higher standards. Established guide for developing teaching institution, for appropriate faculty, infrastructure, clinical facilities and patients requirements for students learning at under graduate and post graduate institutions. Teaching institutions to have approach and concern towards the total oral and dental health care of the rural population.

Visitation:

Visited Russia on 25th October, 1996 as a representative of the Dental Council of India to increase co-operation and recognition of Russian Universities by DCI.

Invited and attended 10th Annual Conference of Oman dental Association at Sultanate of Oman, Muscat held on 15th October, 1996 and delivered a guest lecture on “SMILE”.

He was invited and visited the dental school and research institution of Okayama University, Japan in January 1996 to sign MoU between ABSMIDS and Okayama University for exchange of faculty and students and also research activities.

He was again invited by the Okayama University, Japan in 2008 for delivering a guest lecture on “Dental Education in India” on the occasion of its 60th Anniversary.

He has travelled widely all over the world, visited and interacted with many dental schools, professionals and research workers. He has attended many national and international conferences of the profession as well as trade of the profession.

Awards :

1. **“Dr. B.C. Roy National Award 1996” Under the Category of Socio-Medical Relief” presented by the Hon’ble President of India – Sri K. R. Narayanan.**
2. **Eminent Teacher Award in the field of Health Sciences by the Rajiv Gandhi University of Health Sciences, 2007.**
3. **Lifetime Acheivement Award from the Indian Prosthodontic Society, in appreciation of his meritorious service as an educationist, Academician, clinician and as a innovative visionary in rural health care, presented by Hon’ble Governor of Tamil Nadu Dr.K.Rosaiah in 2012.**
4. **“Pierre Fouchard Academy International Certificate of Merit” awarded by the Pierre FouchardAcademny, India Section at the 26th Annual Convocation and Awards Ceremony. December 15th 2012.**

5. **"Man of the Year 2002"** Award- one of the major and leading authorities on the biographies of distinguished individuals worldwide, the American biographical institute, U.S.A. based on his outstanding accomplishments to date and the noble example he has set for his peers and entire community.
6. **"The Best Citizen of India Award – 2000"** Award by the International Publishing House.
7. **"Barucha Award"–** Received for the best paper "Fit and insertion of 54 complete denture prosthesis in one day at camp site – A unique community programme" presented at 46th Indian Dental Association conference.
8. **"Visishta Chikits Medal"** awardby the association of college of chest physician in december, 1995.
9. **"Best President Award"** – 1989-90 from Indian dental association, Karnataka state branch.

He was felicitated by Indian Dental Association of Southern California, USA in 1997 and by Karnataka State Dental Study Group of USA in the same year for his distinguished services in the field of dentistry as a teacher, clinician and administrator. He has received many more awards and was felicitated for his achievements by citizens of his hometown, professional associations,Prosthodontic forum, Bangalore, Government Dental College, Bangalore and other dental colleges in the country, Rotary club, Bunts sanghas(Community organisations) of Mumbai Chennai, Indore, Bangalore, Shimoga, Puttur, Baindoor etc.

His selected philosophy:

- Prepare your students for a career, not just another class
- Discipline is the gateway of learning. Education is to experience knowledge and progress of our mind for better social living.
- Thinking is no substitute for information and information is no substitute for thinking. Both are necessary for intellectual development
- Some are fortunate enough to be born to pious parents in a good family. Still there is a possibility of going astray, if one falls into bad company, Culture and company of goodness makes a person virtuous.
- One cannot become a millionaire in a day. Saplings cannot bear fruits; it needs to grow into a tree. Students cannot get first class by studying for a day. Hard working over a period of time gives excellence and success.
- Educate professional with discipline, skill, respect and social responsibilities.
- To be successful be regular, punctual and diciplined. Be patient and persevere to achieve success.

Acknowledgments

Vision and concept is envisaged and prepared for a Health System to be developed for a continuous and progressive improvement of the health status and economic progression of the rural population and semi urban population for equality of health care, thus for rural empowerment.

In 1985, when I assumed the Office of the Dean of A.B.Shetty Memorial Institute of Dental Sciences, then a college of Nitte Education Trust and now a constituent college of the Nitte university; I was able to realize my dreams by conceptualizing and implementing my vision and concept "Institutionalized Approach - Total Health Care For Rural And Semi Urban Population At The Door Step - Free Of Cost".

My endeavour has been fully appreciated and supported by my friend and colleague, Sri. N.V Hegde, Chancellor, Nitte University - A visionary - "Rural Health, Education and Employment". I thank him and the Nitte Education Trust for supporting the cause both financially and morally.

I acknowledge all those whom I have associated with while implementing this vision and concept- local village leaders, local voluntary organizations, local clubs like Rotary club, Lions club etc., gram panchayaths, charitable institutions and NGOs.

I acknowledge the Faculty, Post Graduate students, Interns, Undergraduate Students and Para clinical Personnel who have participated and worked earnestly to undertake this concept as a project.

I acknowledge all faculty, post graduate students who have contributed by providing statistics as well as clinical data and photographs.

I acknowledge Dr. Rohit Fernandez, my student, now colleague in preparing the project report in 2006. I also acknowledge Dr. Anand Farias my student, now colleague who was also associated with Dr. Rohit Fernandez in preparing the project report and now independently in preparing this manuscript for printing with the assistance of Ms. Sudevi Hegde.

I acknowledge Dr. Vinayak Kamath,faculty and my colleague in finalising the manuscript.

I acknowledge my wife Ms. Padmanayana and our family for supporting me patiently in this endeavour throughout my services at A. B. Shetty Memorial Institute of Dental Sciences.

I acknowledge all those involved in realizing my deep desire to identify the ways for solving the health problems of the underprivileged rural population and were associated with me with all their patience and supported me in writing this book.

9th July, 2013

Prof. (Dr.) N. Sridhar Shetty

CONTENTS

"Health is a state of complete physical, mental and social well being and not merely the absence of disease of infirmity"

(Preamble to the Constitution of the World Health Organization 1948)

"Health is Wealth: Health for a Quality Life"

"Health services in India imitate the West, where specialists treat patients only in clinics or hospitals in cities and at Tertiary Health Care centers: This works well only when there is also Awareness, Availability, Accessibility, and Affordability for higher therapeutic facilities for rural and semi urban areas population of India to ensure equality in health care."

Health Systems in India and Analysis of inequality of Health care

"Health is Wealth: Health for a Quality Life"

"HEALTH" is an important contributory factor; considerable importance should be focused to health programme. Creation of a specialized cadre of health professionals with holistic approach to serve the rural masses particularly poor and under-privileged, with dedication and commitment, providing them much needed specialists health care with the objective to achieve equality in health care. This shall ensure health for all, with empowerment, and with economic progression. Healthy mind of the masses with improved health status will generate wealth for the nation with higher productivity and all round prosperity.

It was in 1943, Sir Joseph Bhore, Chairman of the Bhore Committee recommended the Doctor to patient ratio of 1:4000. When the recommendations of Sir Joseph Bhore, was put forward, Medical Science was in its infancy and population of undivided India was 400 million and the available manpower was mostly qualified with basic medical education only MBBS. Further, Mudaliar Committee (1962), Chadah Committee (1963), Mukerji Committee (1965 & 66), Jungalwalla Committee (1967), Karthar Singh Committee (1973), Shrivastav Committee (1975) recommended different measures for the administration, planning and programming of the health care system.

From population of 434.9 million in 1960, it gradually increased to 476 million in 1965, 523 million in 1968, 547 million in 1971, 600 million in 1975, 1050 million in 2002 and to 1150 million in 2010. The total population of India was last recorded 1241.5 million people in 2011.

The Rural population in India was last reported 856,005,414 (857 Million) in 2010, according to a World Bank report published in 2012.

The Urban population in India was last reported 368,608,912 (369 Million) in 2010, according to a World Bank report published in 2012

The Population in largest 8 cities in India was last reported 85,076,519 (85 Million) in census 2011.

The Population in large cities in India was last reported 153,943,845(154 Million) in census 2011.

(53 cities with population more than one million people - Mega cities, and million plus other cities)

Total rural and semi urban (small cities and towns) population of India is 1.188 billion in 2012. Out of these, 857 million population are living in 638,596 villages(state/Union Teritory) and 357 million are in semi urban area and population of 647 districts are distributed in 5767 Tehsils, 7945 towns and 4,378,286 urbanised (UAs) towns.

"Health System" in India

The aim of a health system is development of health – a process of continuous and progressive improvement of the health status among a population. Authorities shall ensure health for all as enshrined in our constitution.

The "Health System"* is intended to deliver 'Health Services'. In other words, it constitutes the management sector and involves the organizational matters, such as planning, determining priorities, mobilizing and allocating resources, translating policies into services, evaluation and health education.

As "Health" is an important contributory factor in the utilization of manpower, the Planning Commission has given considerable importance to health programmes in its Five Year Plans.

For the purpose of planning, the health sector has been divided into the following sub-factors:

1. Medical education, training and research
2. Medical care facilities including hospitals, dispensaries and Primary Health Centers (PHCs)
3. Control of communicable diseases,
4. Public health services
5. Family planning
6. Indigenous systems of medicine
7. Water supply and sanitation

The health plan is implemented at various levels – centre, state, district, block and village for its effective implementation at the grass root level.

Levels of Health Care:

Health services are usually organized at three levels and each level is supported by a higher level to which the patient is referred. These levels are:

1. Primary health care (Primary Health Centers and sub centers)
2. Secondary health care (District hospitals and community health centers)
3. Tertiary health care (Teaching hospitals and institutions and other apex hospitals.)

The excellent programmers' three levels of health services launched by:

- The Government of India,
- The State Governments
- The NGO's

Components of a health system include:

1. *Concept(e.g. Health and diseases)*
2. *Objective (e.g. equity, coverage, effectiveness, efficiency, and impact)*
3. *Coverage Target (e.g. hospitals, Health centers, and Health programs)*
4. *Beneficiaries (e.g. providers and consumers)*

These levels of health care are implemented to help the population of India by providing medical facilities and expending huge amounts for treatment and to improve the quality of life. In spite of this, the patients in rural and semi urban areas, comprising 69% to 70% of the population i.e., 1.188 billion seems to have been neglected with a marked insufficiency and they have not been able to Avail, Access or Afford the facilities due to several historical reasons. The skilled specialists, advanced treatment and therapeutic facilities are made available only at secondary and tertiary health care centers.

* Park Test Book Preventive and Social Medicine

POPULATION OF CITIES IN INDIA – 2011

(The Total Population of India was last recorded 1241.5 million people in 2011)

Rank	UAs(cities)	State/Territory	Population (2011)
1.	Mumbai	Maharashtra	18,414,288
2.	Delhi	Delhi	16,314,838
3.	Kolkata	West Bengal	14,112,536
4.	Chennai	Tamil Nadu	8,696,010
5.	Bangalore	Karnataka	8,499,399
6.	Hyderabad	Andhra Pradesh	7,749,334
7.	Ahmedabad	Gujarat	6,240,201
8.	Pune	Maharashtra	5,049,968
9.	Surat	Gujarat	4,585,367
10.	Jaipur	Rajasthan	3,073,350
11.	Kanpur	Uttar Pradesh	2,920,067
12.	Lucknow	Uttar Pradesh	2,901,474
13.	Nagpur	Maharashtra	2,497,777
14.	Ghaziabad	Uttar Pradesh	2,358,525
15.	Indore	Madhya Pradesh	2,167,447
16.	Coimbatore	Tamil Nadu	2,151,466
17.	Kochi	Kerala	2,117,990
18.	Patna	Bihar	2,046,652
19.	Kozhikode	Kerala	2,030,519
20.	Bhopal	Madhya Pradesh	1,883,381
21.	Thrissur	Kerala	1,854,783
22.	Vadodara	Gujarat	1,817,191
23.	Agra	Uttar Pradesh	1,746,467
24.	Visakhapatnam	Andhra Pradesh	1,730,320
25.	Malappuram	Kerala	1,698,645
26.	Thiruvananthapuram	Kerala	1,687,406
27.	Kannur	Kerala	1,642,892
28.	Ludhiana	Punjab	1,613,878

29.	Nashik	Maharashtra	1,562,769
30.	Vijayawada	Andhra Pradesh	1,491,202
31.	Madurai	Tamil Nadu	1,462,420
32.	Varanasi	Uttar Pradesh	1,435,113
33.	Meerut	Uttar Pradesh	1,424,908
34.	Rajkot	Gujarat	1,390,933
35.	Faridabad	Haryana	1,404,653
36.	Jamshedpur	Jharkhand	1,337,131
37.	Srinagar	Jammu and Kashmir	1,273,312
38.	Jabalpur	Madhya Pradesh	1,267,564
39.	Asansol	West Bengal	1,243,008
40.	Allahabad	Uttar Pradesh	1,216,719
41.	Dhanbad	Jharkhand	1,195,298
42.	Vasai-Virar	Maharashtra	1,221,233
43.	Aurangabad	Maharashtra	1,189,376
44.	Amritsar	Punjab	1,183,705
45.	Jodhpur	Rajasthan	1,137,815
46.	Ranchi	Jharkhand	1,126,741
47.	Raipur	Chhattisgarh	1,122,555
48.	Kollam	Kerala	1,110,005
49.	Gwalior	Madhya Pradesh	1,101,981
50.	Durg-Bhilainagar	Chhattisgarh	1,064,077
51.	Chandigarh	Chandigarh	1,025,682
52.	Tiruchirappalli	Tamil Nadu	1,021,717
53.	Kota	Rajasthan	1,001,365

53 cities with population more than one million people - Mega cities, and million plus other cities: Total population is 153,943,885 million by 2011.

POPULATION OF LARGE CITIES IN INDIA – 2011

Mumbai, Maharashtra	18,414,288	Mega cities
Delhi, New Delhi	16,314,838	
Kolkata,West Bengal	14,112,536	
Chennai,Tamil Nadu,	8,696,010	
Bangalore,Karnataka	8,499,399	
Hyderabad,Andhra Pradesh	7,749,334	
Ahmedabad,Gujarat,	6,240,201	
Pune,Maharashtra	5,049,968	
TOTAL	**85,076,519**	

1,000,000-4,999,999 (Metropolis)

10 Cities between 2 to 3 million people Total population: 24,265,267
34 Cities between 1 to 1.9 million people Total population:44,602,099

500,000-999,999 sub-Metropolis

468 class 1 UAs Towns over 100,000 population
Total population: 264,900,000
(70% of the total urban population, live in these 468 class 1 UAs Towns)

Population of UAs/Towns:

The total urban population in the country as per Census 2011 is more than 377 million people constituting 31.16% of the total population.

Class I UAs/Towns:

The UAs/Towns are grouped on the basis of their population in Census. The UAs/Towns which have at least 100,000 persons as population are categorized as Class I UA/Town. At the Census 2011, there are 468 such UAs/Towns. The corresponding number in Census 2001 was 394.

264.9 million people, constituting 70% of the total urban population, live in these Class I UAs/Towns. The proportion has increased considerably over the last Census.

In the remaining classes of towns the growth has been nominal.

Million Plus UAs/Towns:

Out of 468 UAs/Towns belonging to Class I category, 53UAs/Towns each have a population of one million or above each – known as “Million Plus UAs/Cities”, these are the major urban centers in the country.160.7 million Persons (or 42.6% of the urban population) live in these Million plus UAs/Cities.18New UAs/Towns have been added to this list since the last Census.

Mega Cities: Among the Million plus UAs/Cities, there are three very large UAs with more than 10 million persons in the country, known as Mega Cities. These

are Greater Mumbai UA (18.4 million), Delhi UA (16.3 million) and Kolkata UA (14.1 Million).

31.16% populations living in cities are only benefitted by Tertiary Health Care (Teaching hospitals and Institutions and other Apex Hospitals.)

Number of Districts : 647
Number of Tehsils : 5767
Number of towns : 7945
UAs towns : 4378

Population 207 million excluding Class I Cities

According to the data from the Census of 2011, cities and towns can be broadly classified as:

- Class I:Population 100,000 and above – 300 cities
- Class II: Population 50,000 to 100,000 – 345 cities and towns people with Secondary Health Care (District Hospitals and Community Health Centers)
- Class III: 20,000 to 49,999- 947 towns
- Class IV: 10,000 to 19,999-1167, towns,
- Class V: 5,000 to 9,999, 740 towns
- Class VI: Less than 5,000 -197 towns.
- Total number of cities and towns: 3696. Secondary Health Care (No data with regard to Community Health Centers)

Number of villages and urbanised town in the country distributed according to the population ranges and total population.

Ranges	No. of villages	Population	Ranges	No.of UAs/ Towns	Population
Less than 100	276	2,274,375	Less than 5000	192	667,772
100-199	46,276	6,912,023	5,000-9,999	879	6,658,356
200-499	127,511	43,960,187	10,000-19,999	1,346	19,458,295
500-999	145,402	105,274,341	20,000-49,999	1,163	35,154,857
1,000-1,999	129,977	183,294,133	50,000-99,999	404	27,832,412
2,000-9,999	80,413	239,184,866	1,00,000-4,99,999	320	60,554,358
5,000-9,999	14,799	98,112,136	5,00,000-9,99,999	39	27,503,626
10,000 & above	3,961	63,478,578	10,00,000-& above	35	108,290,013
Total	**593,615**	**742,490,639**	**Total**	**4,378**	**286,119,689**

Source : Primary Census Abstract, India, Census of India 2001.

	No. of Villages	No. of Inhabited Villages	Un-habited Villages
India	638,596	593,731	44,865
Uttar Pradesh	107,452	97,942	9,510
Madhya Pradesh	55,393	52,117	3,276
Maharashtra	43,711	41,095	2,616
Orissa	51,349	47,529	3,820
West Bengal,	40,783	37,945	2,838
Jharkhand	32,615	29,354	3,261
Karnataka,	29,406	27,481	1,925
Tamil Nadu	16,317	15,400	917

Number of Villages in Other states & UT are below 25,000

Problems:

Sir Joseph Bhore, Chairman of the Bhore Committee recommended the Doctor to patient ratio of 1:4000 (1943). When the recommendations of Sir Joseph Bhore, was put forward, Medical Science was in its infancy and population of undivided India was only 400 million and the available man power was mostly qualified with basic medical education, only MBBS degree.

Today, health sciences have scaled greater heights. Medical science has witnessed a remarkable progress in health-care providing quality life to patients.

The diseases – communicable disease, maternal and prenatal conditions and nutritional deficiencies, non-communicable diseases and injury burden by external cause to be combated, presently range over several thousands in numbers.

Diseases of every organ or system are managed and treated organ wise and specialist wise with the support of diagnostic and therapeutic facilities. The ability to understand the findings and arrive at a diagnosis, provide the treatment and predict the prognosis of those suffering requires skilled specialist's personnel. Advances in diagnosis, radio-diagnostics, genetics, molecular biology and pharmacological therapeutics have given excellent support to the task of combating diseases and extending health care. Newer and more advanced surgical techniques, backed by biotechnology have made recovery easier and better.

Health science has developed by focusing on factors such as disease, age and genetics which is approached organ-wise or system-wise so as to provide a better understanding for the development and the management of diseases. The holistic approach on environment, water, food, education, economy, culture, social well- being and mental health further enhances the scope of prevention of diseases and aftercare for the ailing patients.

We require specialist manpower to take care of every system or organ

of the body. The manpower being physicians and surgeons with requisite clinical skills along with supporting paramedical personnel like nurses, physiotherapists and technicians and also along with the instruments, equipment and therapeutic facilities. We require knowledgeable specialists and qualified health workers to create an Awareness of health, prevention of diseases and also facilitating Accessibility, Availability of specialists along with therapeutic facilities and Affordability for the people living in these rural areas.

69% to70% of the population i.e. 1.188 billion people are living in 638,000 villages and 7945 small cities & towns and 4,378 UAs towns at rural and semi urban India. At present facility of only primary health care (Primary Health Centers and sub centers) is made available. This rural and semi urban population seems to have been neglected, since skilled specialist with diagnostic and therapeutic support, is not made available at primary health centre.

Health services in India imitate, as in west, where specialists in clinics or hospitals treat patients only at cities with population of 154 million *(53 cities with population more than one million people - Mega cities, and million plus other cities)* or at tertiary health care centers: Teaching hospitals and institutions and other apex hospitals and also at secondary health care centers: district hospitals and community health centers.

This works well only if there is Awareness, Availability, Accessibility, and Affordability for higher therapeutic facilities to provide equality in health care for all those 1.188 billion rural of India

This will not work well, in our country comprising 69% to 70% population i.e., 1.188 billion population in rural and semi urban areas, for whom there is no awareness of diseases, and its knowledge of prevention. Further, there is no availability, accessibility, and affordability for higher therapeutic facilities for this rural and semi urban population.

At present, qualified manpower, instruments, infrastructure and advanced therapeutic facilities are concentrated in big cities, which make up only 31.16% of the population of the country. The populations living in these areas not only have health Awareness and prevention facilities but also Accessibility, Availability and Affordability.

In spite of increasing manpower and specialist manpower, instruments, materials, infrastructure and advanced therapeutic facilities available in the country, authorities have failed to provide total health care for the rural and semi urban population.

At present administration and authorities are perplexed with these problems and are thinking of starting health educational institutes to grant qualifications in 3 years instead of the present 5 and half years thus creating less knowledgeable, less experienced basic manpower, with hope to reach the 1.188 billion populations for their health care.

It is a negative proposal and one has to wonder whether these populations are treated as second class citizens. They have right for equality in health care and to live healthy and happy. Don't they?

VISION & CONCEPT
FOR EQUALITY IN HEALTH CARE

Institutionalized Approach - Total Health Care for Rural and Semi Urban Population at the door step - Free of Cost

This proposal is envisaged and prepared for a Health System to be developed for a continuous and progressive improvement of the health status and economic progression of the rural and semi urban population for equality in health care and empowerment.

While working in the Government Dental College, Bangalore as a faculty member for 13 years, I had personally witnessed the hardships faced by the poor patients coming for the treatment to Victoria hospital complex, Bangalore. Despite arriving from distant rural areas,they had still not been able to Avail, Access or Afford the facilities due to several historical reasons. Many a times, the patients had to return without having the required attention or even the treatment. The despair amongst the poor patients especially from rural areas had then left an indelible impression in my mind with a vow to alleviate their sufferings.

After I had assumed the office of the Dean in 1985, at the A.B. Shetty Memorial Institute of Dental Sciences (now constituent college of Nitte University) my past indelible impression and concern to attend to the despair amongst the poor patients especially from rural areas was rekindled by the vision of the Founder of Nitte education Trust, Hon'ble Justice K S Hegde -"Education, Employment, and Health has crucial role in shaping the living condition of the people, especially the Rural population".

I was able to realize my dreams by conceptualizing and implementing my vision and concept "Institutionalized Approach - Total Health Care For Rural And Semi Urban Population At The Door Step - Free Of Cost" for equality of health care with economic progression

This Vision and concept is "Institutionalized Approach - Total Health Care for Rural and Semi Urban Population at the Door Step - Free Of Cost" for equality of health care was envisaged and prepared for a health system to be developed for a continuous and progressive improvement of the health status and economic progression of the rural and semi urban population. This vision and concept has been practiced and tested at teaching dental institution

My endeavour has been fully supported and also appreciated by my friend and colleague, Sri. N.V Hegde, Chancellor, Nitte University.Despite the involvement of large financial and administration commitment. with great support and encouragement, he has approved and permitted to implement this concept,at the teaching institution, A B Shetty Memorial Institute of Dental Sciences.

Medical teaching institutions with necessary amendments authorized by statute bodies, can easily adopt this vision and concept. Conceptualizing and implementing the vision and concept "Institutionalized Approach - Total Health Care for Rural and Semi Urban Population at the Door Step - Free Of Cost" would provide Awareness, Availability, Accessibility, and Affordability for higher therapeutic facilities for total health care of present 1.188 billion rural and semi urban areas population of India.

This envision of a health care delivery system with intelligent networking amongst government and private health care institutions will ensure total health care for rural and semi urban population at their doorsteps, free of cost. Qualified manpower, instruments, infrastructure and advanced therapeutic facilities are made Accessible, Available and Affordable to the people residing in rural areas along with creating health awareness and prevention. This also envisages economic progression of the rural masses in addition to providing them the much needed health care facilities health care facilities.

This concept and vision is envisaged of reaching the present rural and semi urban population of 1.188 billion by introducing health science teaching institutions and creating vibrant health care facilities and infrastructure in rural and semi urban areas, which is almost absent today. The rural population of India will be empowered with economic progression and will be able to lead a healthy and good quality life. This shall ensure health for all, as enshrined in our constitution, in near future.

This will also bring in overall economic transformation in the area in terms of generating direct and indirect additional employment and income, including creation of various infrastructures like transportation, communication, etc.

Medical and oral checkup is a common scenario actively conducted by professional associations and institutions.

A farmer, a bread winner for the family who is working very hard without any complaint is subjected to medical checkup under this camp. A cardiologist on finding some coronary problems would advise him to take rest and not to do hard work cautioning him that it is a life threatening problem. He will prescribe some medicines and advise the farmer to visit the specialty hospital for further treatment.

Whether this farmer psychologically with fear of death can afford to travel far distant specialty hospitals or can he Afford medicine? Whether he will have Accessibility, Availability and Affordability for the treatment?

Awareness: The required qualitative and quantitative manpower is concentrated only in big cities, but 70% to 80% of the population is inhabited in the rural and semi urban areas. Extension of health care facilities is needed to create awareness for prevention, diagnosis, treatment and aftercare for the majority of the population. Qualified specialists and trained health worker have to create an awareness of health, prevention of diseases and aftercare.

While working in the field,a farmer gets a cut injury on his foot. to stop the bleeding ,he applies mud with ignorance.This may ultimately make him lose his foot or die of gangrene or tetanus. He is not aware of the consequences. He does not know where to access, avail and take help for health care, within his means.

Health care professionals, faculty and enthusiastic, tireless natured young graduating students should visit the rural populations for the holistic approach on water, salt, food, education, economy, culture, sanitation, environment, agricultural& occupational health hazards and vocational job, and on maternal health and child care, social wellbeing, family planning, geriatric and mental health to enhance the scope of prevention of diseases and after care etc. This would also facilitate administration and planning for identified diseases and their demographic distribution has to be charted out for establishment of effective patient care and planning.

857 million people dwelling in 638,956 villages are yet to be reached and yet to be aware.

Accessibility:

Having created Awareness on health and diseases for its prevention and aftercare, there should be an accessibility to reach out to the health care centers economically

Availability:

Making the availability of the required qualified specialist manpower, equipments instruments, diagnostic and therapeutic measures for the prevention, diagnosis, cure and aftercare.

Skilled specialists with diagnostic and therapeutic support are yet to be made available at primary health centre

Affordability:

In spite of the expertise and good facilities available in the country, the high cost involved in diagnostic aids, treatment and after care, in clinical and therapeutics, makes it Available and Affordable to only 1% of the population in this country.

Today apex hospitals in big cities are mostly busy providing the priority treatment to VIP's, administrative aristocrats, administrative bureaucrats and high placed & most affordable individuals.

A Middle-Class gentleman riding on motor cycle, recently met with a road accident. He was taken to AIIMS by his colleague. After going through a lengthy hospital admission and diagnostic procedures, he was informed of his critical condition and advised for fracture reduction by surgery. On consent, he was told that he was number 31 on the list to get into the surgery for fracture reduction, since lots of patients were already on the waiting list.

Since it was alarming, he was shifted to private nursing home and surgery was performed at cost of Rs 250,000. More than money spent, agony and anxiety was the unforgettable suffering.

(-Personal Communication, as narrated by the patient's colleague)

A mandatory regulation should be planned that every specialist concentrated in apex hospitals shall serve atleast 30% of their duties in rural areas to serve the under-privilaged rural population.

The government of India should also plan multiple hospitals (300 beds) of AIIMS stature at rural places to facilitate the rural population of minimum 50,000 families (for each hospital).

Health services in India imitate, as in west, where specialists in clinics or hospitals treat patients only at cities where population is of 154 million(53 cities with population more than one million people - Mega cities, and million plus other cities) or at tertiary health care centers: Teaching hospitals and institutions and other apex hospitals and also at secondary health care centers: district hospitals and community health centers. This works well only if there is Awareness, Availability, Accessibility, and Affordability for higher therapeutic facilities to provide equality for all those 1.188 billion rural and semi urban areas population of India.

If Doctors and specialists motivated to establish clinical practice in small towns and villages to facilitate the present population of rural and semi urban areas of India, It is also required to establish surgical and medical facilities (hospitals) as well as diagnostic preventive, treatment, therapeutic and aftercare facilities. This would not be a viable investment, since the economy of the population is always in red, even if their charges are subsidized. The income generated from their services would not be sufficient to support the doctor and his family and also his investment.

The Medical teaching institutions are among those with excellent manpower having specialized knowledge and higher skills with access to recent advances and infrastructure supported with diagnostic and therapeutic facilities - Doctors, Nurses, technicians and other paramedical staff along with undergraduate and post graduate students with access to provide total health care facilities.

The concept "Institutionalized Approach for Total Health Care for Rural and Semi-Urban Population at their Door Step – Free of Cost." was visualized to utilize health science teaching institution to facilitate Awareness, Availability, Accessibility, and Affordability to the rural and semi urban popullation.

Proposal

This proposal is envisaged and prepared for a health system to be developed for a continuous and progressive improvement of the health status of the rural and semi urban population along with economic progression, for equality in health care.

The Medical Council of India currently (2011) fully recognizes 345 colleges, with a total capacity to train 40,525 medical students. Almost all medical colleges are situated in mega cities and more than million population cities.

The Medical teaching Institutions are among those with manpower of excellence – such as Doctors and specialists, nurses, technicians and other paramedical staff along with undergraduate and post graduate students with access to health care facilities, research and recent advances in the medical field.

These man power of excellence are facilitated for advances in diagnosis, radio-diagnostics, genetics, molecular biology and pharmacological therapeutics for combating diseases and extending Health care, and also newer and more advanced surgical techniques, backed by biotechnology are made available.

In the present scenario, a medical college with 100 admissions requires a teaching hospital which is fully equipped with a minimum of 500 beds, distributed under the various sub specialties, medical, surgical, obstetrics and gynecology etc. These beds are to be further divided into small units of 30 each, to facilitate clinical training for the students in different specialties. Clinical teaching and learning for students are done in smaller groups. The faculty members in each specialty are to be divided into smaller groups to facilitate clinical teaching and patient management. The students are to be taught and trained in smaller groups posted in each unit of specialization, focusing on prevention, diagnosis, treatment and aftercare. Medical teaching Institution must necessarily be under one roof and in one campus.

Presently, for the 1.188 billion people in rural and semi urban areas, there is no awareness of diseases and also knowledge of its prevention . There is no availability, accessibility, and affordability for higher therapeutic facilities. Almost all institutions are situated at mega-cities, million plus cities and class 1 cities fully engaged in providing total health care for only 30% UAs population. There is an inequality in health care.

Under this proposed concept and vision, there is a need to establish Medical colleges at rural areas with necessary amendments, with clusters of Hospitals as proposed in the concept. The college should facilitate the required qualified specialist manpower, equipment, and instruments, diagnostic and therapeutic measures for the prevention, diagnosis, cure and aftercare and to create and facilitate Awareness, Accessibility, Availability and Affordability to the rural population. By adopting this vision we shall fulfill the objective of providing total health care with economic progression to the rural and semi urban population of India free of cost.

Health Science Institution, clinical teaching and learning, need not necessarily be under one roof and in one campus, but can be programmed to have a cluster of Hospitals, at 200 Km. radius area around the institution to improve the health status of the rural and semi urban population for total health care. It will create an awareness about the prevention, treatment and aftercare of a disease by visiting door to door at villages. This facilitates Awareness, Accessibility, Availability and Affordability to the rural population.

A Health Science Institution, clinical teaching and learning, can be programmed to have a Network of hospitals: cluster of Hospitals to facilitate in the teaching hospital beds distributed under the various sub specialties', medical, surgical, obstetrics and gynecology etc. with the State-of-art infrastructure for Diagnosis, surgical, medical and therapeutic facilities

A mandatory requisite of a minimum of 50,000 families or more (100 admission college and proportionately increasing for more admission) of the rural areas should be registered with the Institution. This neglected and under privileged population has to be provided health awareness and prevention facilities and also provided with facilitating Accessibility, Availability and Affordability for the people living in these areas, at free of cost. The Institution should be assigned to take up the responsibility of the rural population at 200 Km. radius area around the institution to improve the health status of the rural and semi urban population for total health care, Create an awareness, prevention, treatment and aftercare by visiting, door to door at villages.

I Network of hospitals:

Medical teaching institution need not necessarily be under one roof and in one campus, but can be programmed to have a cluster of Hospitals:

- Establishment of nucleus hospital with the state-of-art infrastructure for diagnosis, surgical, medical and therapeutic facilities (Super-Specialty Hospital).
- Establishment of five 100 bedded hospitals as satellite centers around a nucleus hospital with-in the radius of 200 km with all the infrastructure required for emergency care, diagnosis, clinical care or treatment, and aftercare related to all specialties under the various sub specialties', medical, surgical, obstetrics and gynecology etc. The word "satellite" is used to emphasize that there will be a continuous interaction between the satellite centers as well as the nucleus hospital for the management of patients and clinical teaching of students.
- Establishment of five more 50 bedded hospital for emergency care and medical care around these five 100 bedded Satellite Hospitals with a command area of 50 kilometers. Likewise there will be a continuous interaction between the satellite centers as well as the nucleus hospital for the management of patients and clinical teaching of students.

These networks of Hospitals with specialists will provide awareness, accessibility and availability of health care therapeutic facilities free of cost for all the needy rural population.

The skilled manpower primarily will include faculty (teachers), assigned in proportion to the students, who will be posted at these hospitals.

The other required infrastructure with basic amenities and facilities for the people who are working in the hospital should be established around this hospital. Social, cultural, and sports facilities also should be established.

This manpower should reach out to the rural population with the objective of creating health consciousness & awareness, prevention, treatment and aftercare at their doorsteps free of cost.

With the present technology, students can be taught via the e-learning process and get exposed to all faculty members for lectures, clinical discussions and interactions.

They should also spend their learning and teaching hours in and around clusters of rural centers equipped with modern facilities instead of working under just one roof within a campus with metropolitan comforts.

The students are to be further trained in groups and batches in all the subjects in relevant areas via an effective teaching protocol while adhering to the highest standards.

With numerous post graduate training programs, the institution has to be facilitated with additional beds to be utilized by the post graduate students in different specialties.

The manpower with specialized knowledge & higher skills, requisite infrastructure supported with diagnostic and therapeutic facilities will have access to recent advances and is to be updated on an ongoing basis. The research activities are to be upgraded in accordance with the needs of the future.

II A holistic concept for health care and planning: house to house visit, epidemiologic studies and demographic distributions, hospital care, street plays and economic progression.

1. House to house visits:

"Health Assessment Team", to visit ignorant rural population at their door step to create health awareness and for prevention and care.

This "Health Assessment Team" must consist of health care professionals, teaching faculty, enthusiastic and tireless natured young graduating students along with a team of experts consisting of social workers, veterinary surgeons, agriculturists, horticulturists, public health engineers and public relation officers with knowledge of business management and public relations. This team will visit the rural population to create health awareness and to discuss preventive measures for diseases. Other topics that can be discussed about are - maternal health and child care, social well being, family planning, geriatric and mental health. "Health Assessment Team", will enhance the scope of prevention of diseases and aftercare and will try to identify, educate and report health risk factors associated with: habits, culture and education, personal hygiene, sanitation, impact of human

and plant life on the environment, water, salt, food, occupation and economy. This approach also helps to improve production and marketing of agriculture, farming for economic progression.

Students and teachers should also be involved by making it a part of their curriculum. Proper training and knowledge should be provided to make house to house visits at the rural areas and to create awareness of health as part of the holistic approach.

An Expert Committee (Faculty) should prepare questionnaires for exercising prevention of diseases as well as improving the health status related to the above areas including pre-identified diseases. This participative process (one to one basis) will not only facilitate clear understanding of need for prevention of diseases but also will create health awareness, ultimately for leading quality life. For e.g.: Do you add salt in the food? Is it Iodized salt? Do you add salt while cooking or after cooking? The next conversation would be with the surprise statement from the lady of the house that it will be added during cooking. Why after cooking? She will be advised to add salt in the smaller quantity while cooking and add salt again, after cooking for the taste to preserve the important element iodine(not stable under heat) which is necessary for our health(thyroid).

These one to one discussions made during house visits creates interesting topics of discussion for health awareness among the population instead of teaching and professing. Expert committee making house to house visit must also be provided with laptop for data collecting and processing, kit with oral screening instruments, portable oxygen and emergency medicine(with stethescope, spygmomanometer) They also should carry drinking water and brunch.(To avoid any obligatory burden on the rural poor and also for personal safety)

2. Epidemiological studies and demographic distributions:

Administration and planning for identified diseases and their demographic distribution has to be charted out for establishment of effective patient care and planning.

These visits (house to house) should be utilized for recording demographic distribution of target diseases, health status and identification of hospital care need of each family.

3. Hospital care:

Each group will separately identify people who require hospitalization or home care. Those people who require hospital care should be transported, free of cost, to these satellite hospitals for treatment. All treatment rendered should be free of cost, as they cannot afford the cost of treatment.

Those patients who require facilities at super specialty hospitals (nucleus hospital) are also to be transported free of cost and given the necessary medical and surgical care at free of cost.

Prevention, diagnosis, treatment, hospital care and aftercare is to be

provided free of cost to the identified 50,000 rural families to extend best of health care & thus improve their quality of life.

4. Street plays:

Doctors and students interact with each other and have presentations & discussions between themselves with the bookish knowledge/ expressions. The same trend is also continued while communicating with the patients. Many times, language becomes a barrier between doctors and patients for better understandings, giving instructions and patient management.

Modified curriculum including street plays, folk dances, etc., would enhance the ability of the doctors and students to better communicate with the society for effective health awareness.

Manpower at the teaching institutions (students, teachers etc.) comprises health professionals with knowledge for prevention of diseases and aftercare. Extracurricular talents of students should be streamlined and utilized to focus on creating health awareness. The students, and faculty with extracurricular talent can write poems, short plays and folk songs on related diseases and public health issues and also enact street plays. The students are asked to write poems, play and enact. These health experts performing street plays, folk dances etc., should be able to communicate with the society and create a lasting impression for proper health care and prevention of diseases.

Street plays, folk dances, etc., should be used as a medium for the health awareness program with above holistic concept as it would create better understanding of the various health issues.

5. Economic progression:

It is proposed that a team of Professionals drawn from various streams of specialization other than health is formed, (included as faculty) which will interact and assist the rural population for their ultimate economic progression.

The team of experts shall consist of social workers, veterinary surgeons, agriculturists, horticulturists, public health engineers and public relation officers with knowledge of business management and public relations. This team will be a part of the health assessment team of the medical teaching institution and will interact with the rural population and the government agencies to provide technical and financial help for producing and marketing their products at a competitive price. This will encourage the villagers to produce more quality products and fetch fair price for their products thus ensuring minimum guaranteed income every month.

The team of experts can also help in training and promoting vocational jobs such as tailoring, manufacturing other home and cottage industry products and assist them to market it, to have an additional income.

The role of the institution and its officers will be to interact and help to produce better quality products and

its marketing at a fair price, thereby helping the villagers to recover their money with reasonable profits without indulgence of a middleman.

The public health engineers would interact with the village Panchayath, the elected representatives and the government agencies regarding need for hygienic conditions and sanitation (toilets, drainage, waste disposal etc) drinking water and a congenial environment with effective transportation and water management for ensuring better health.

A health economic forum needs to be formulated at these rural areas which will be marketed qualitatively and quantitatively. This can be achieved by linking with small scale industries and group farming.

Raising the funds:-

Health care planning and its implementation require considerable funds for the development of required infrastructure and manpower for extension of these services to the needy population.

1. Self Support:

Once the 50,000 families have been identified in the designated area, they will be classified on the basis of their income. This will help to identify families who can afford health care up to a pre-determined upper limit. Patients who can afford up to Rs. 10,000/- per family in a year, will pay Rs. 10,000/- and remaining cost of treatment will be borne by the institutions.

2. Institutional funds:

It is planned to collect a clinical fee from the undergraduate and post graduate students. An estimated sum of Rs. 50,000/- may be collected from each student per year as clinical fees along with the other fees which will be utilized as their contribution towards the above expenses.

3. Government Support

The role of the Government in this project is solicited in form of subsidized fee for the meritorious students belong to economically backward classes.

Such students are to be identified and their contribution to come as Government subsidy towards clinical fees. It is important the Government should exempt taxes on infrastructure developments, equipments, instruments, materials, medicines etc., on all developments instituted at the rural areas to encourage the institution to develop rural health care infrastructure.

It is also important to provide incentives for the health care professionals involved in this project by means of hardship allowances, school education allowance for their children, subsidized housing, educational loans, free medical treatment, and facilities for professional advancement. These facilities should be exempted from tax, which may attract more interested people into this dream project.

What we dream of is a “Hospital System” with a good network involving the private and government health sectors, wherein better health care is extended to the rural population free of cost.

Specialists and qualified doctors travel far distance outside the country and are ready to work even in hardships quietly because of tax free high emoluments. They work happily, even when they are treated as second class citizens. This is not a surprise since after spending lot of money for education they have to make good and comfortable living for their family.

4. Voluntary organizations and NGO's

The Voluntary Organizations and NGO's may be encouraged to play a vital and crucial role by bringing in the needed funds towards the success of this scheme as a pro-active link between the population and the Institution.

5. Health insurance plans

Since the target population may not afford insurance premiums, it is proposed to scout for philanthropic individuals/organizations to sponsor needy identified families.

Government and semi-government organizations, co-operative societies etc, can also propose to the cover the full cost reimbursement of medical insurance plans under the program of social justice.

The families within the command areas will be insured under medical insurance plans by sponsors, who will act as donors. Any amount received under these insurance plans may be utilized to reimburse the expenses incurred for the hospital care.

6. Medical reimbursement

Government and private sector employers can directly remit the amount of medical aid reimbursable to their employees, covered under medical reimbursement schemes to the Institute for the health care extended to the employees.

7. Other Income

The patients outside the command area can be charged for actual expenses for the health care facilities availed by them.

"Nothing is more critical to success than beginning with all the necessary data"

- Jeffrey P. Okeson

"To Acquire Knowledge, one must study; but to acquire wisdom, one must observe"

- Marilyn vos Savant

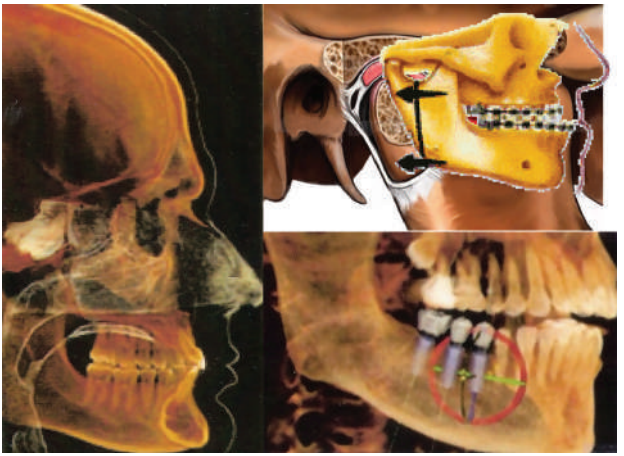
"Thinking is no substitute for information
Information is no substitute for thinking
Both are necessary for intellectual development"

- Prof. N. Sridhar Shetty

Stomatognathic System

The Stomatognathic system is a prime organ of the human body. Vital functions are respiration, mastication, ingestion, deglutition, nutrition, speech, appearance and psychological comforts. It formulates the vital chain that is basis of human existence.

Stomatognathic System



Total health through oral health

The diseases of the organ, stomatognathic system, to be combated range over several thousands. Today the science of dentistry like other branches of the health sciences has scaled to greater heights.

We require specialized man power with requisite clinical skills along with supporting para dental personnel and specialized instruments equipment and therapeutics facilities to successfully prevent, treat and after care of all diseases of organ stomatognathic system.

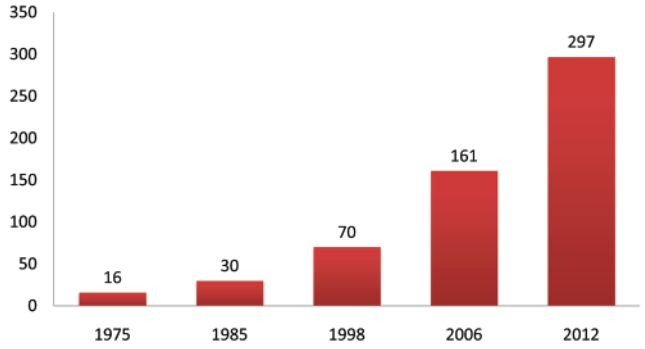
Specialists in dentistry –

- Surgical – Head and neck surgeon, maxillofacial surgeon,
- Medical–
  - o Oral biology ,
  - o Clinical pathologist,(oral pathology)
  - o Oral physician,
  - o Radiologists (Oral medicine and radiology)
- Restorative dentistry –
  - o Prosthodontist - Removable prosthodontics Fixed prosthodontics, Maxillofacial prosthodontics, Maxillofacial esthetics, Reconstructive and restorative Maxillofacial implantology TMJ- Gnathologist,
  - o Periodontist,
  - o Pedodontist,
  - o Endodontist, Operative dentist,
- Corrective Dentistry–Maxillofacial Orthopedics and Orthodontia, Pedodontist
- Public Health dentistry – Preventive and social dentistry

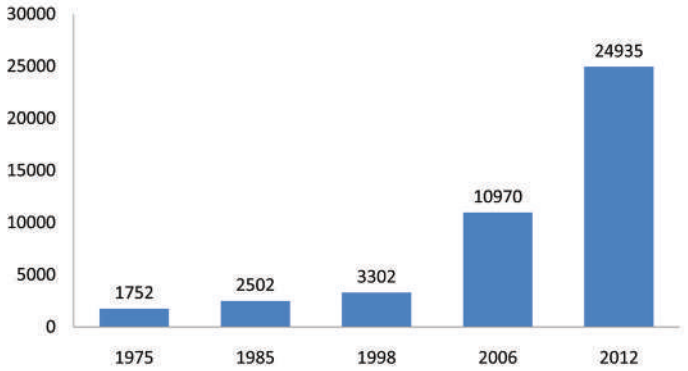
The Dental Council of India currently (2012) fully recognizes 251 colleges with recognized/permitted dental colleges in India (Out of 297 colleges) with a total capacity to train over 24,885 Indian dental students. Today 199 colleges out of 251 recognized colleges provide post graduate training with the intake of more than 4000. Most of the colleges are situated in Mega cities and class 1 city. These institutions are providing total health care of Stomatognathic system only at mega cities and class 1 cities

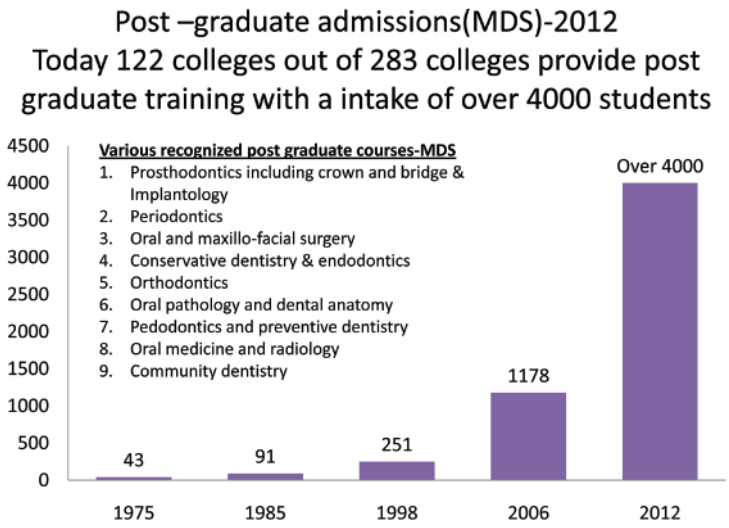
Dental Education

Number of colleges in the country- 1975 to 2012



Number of students admission 1975-2012





"Institutionalized Approach – Total Health care for Rural and semi – urban population at the doorstep- free of cost" was planned, programmed and systematically interacted to acheive the goal. It was implemented at A.B.Shetty memorial Institute of Dental Sciences, now a part of the Nitte University progressively since 1987 with objective of providing total healthcare of stomatognathic system.

Implementation of the vision and concept at the teaching institution - Dental college

The programs to be conducted in this concept are implemented under five categories - Creating activities systematically, coordinating and interacting to achieve the goals-Awareness, Accessibility, Availability and Affordability, and to provide equality in health care.

1. Nucleus hospital – A.B.Shetty Memorial Institute of Dental Sciences
2. Rural satellite centers - situated in a radius of 300 kms around the institute (13 in 2006 which increased to 16 in 2012)
3. Oral and dental health awareness and treatment camps conducted weekly
   a. Awareness at the doorstep programme (house to house visits)
   b. Awareness programme through street plays at rural centers (souks, markets and around satellite centers)
4. School health programme. (Adopting schools around satellite centres and the institution.)
5. "Single day" denture (fit and insertion at rural camps) programme at rural areas for the benefits of elderly population.

I Nucleus Hospital – A.B.Shetty Memorial Institute of Dental Sciences

It has manpower with specialized knowledge and clinical skills, requisite infrastructure supported with diagnostic and therapeutic facilities and access to recent advances and research activities.

Specialists in dentistry – surgical, medical, restorative, corrective and public health are posted to serve at village/semi urban population for total oral & dental health care.

The faculty, post graduate students, interns, undergraduate students and para clinical personnel have participated and worked earnestly to undertake this project. The Nitte Education Trust, now Nitte University, supported the cause both financially and morally. All work has been carried out without sacrificing the prescribed teaching hours by the apex bodies within the institution.

Ultimate goal for every patient should be a maintainable health of the Stomatognathic System

Specialized manpower – teaching faculty - ABSMIDS

Rural Satellite Centers:

Mrs. Sunanda Sunder Hegde – Local volunteer of Dabbekatte Rural Satellite Center

Rural areas from around the institution were selected progressively year after year to establish satellite centers.

A local volunteer or an organization was identified, who provided the immovable infrastructure for the rural satellite center. In places where immovable infrastructure could not be provided it was established by institution.

The local volunteer was assigned with the responsibility for the administration and the management of the centre, courtesy and social support to the faculty.

The volunteer's duty involves registration of the patient, ensuring that minimal time is taken for commencement of the treatment and also to prevent collection of any revenue, by unauthorized unscrupulous persons. He/She also has to extend the required courtesy to patients as well as supervise to maintain asepsis, sterilization and hospital waste management at the centre.

All the patients are provided with immediate oral and dental care envisaging all specialized treatment. Those patients who need specialized or advanced treatment are pooled together and are treated by the post graduates and the faculty members on their weekly or monthly visits.

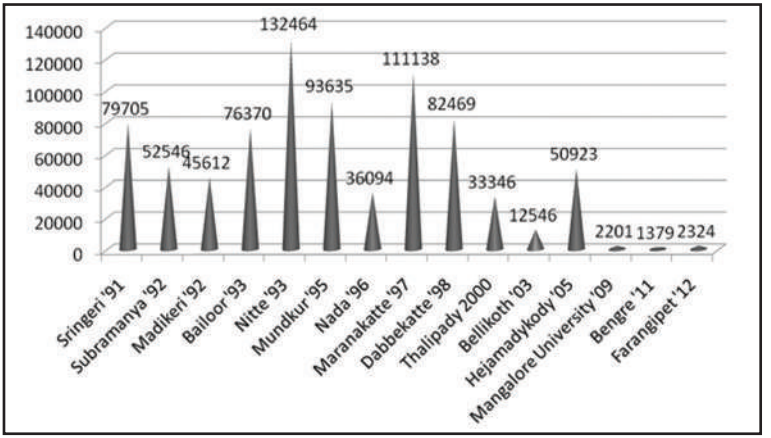
Rural Satellite Centers

LOCATION OF SATELLITE CENTERS •

Rural Satellite Centers

Total Patients Treated at 15 Rural Satellite Centers from 1991 to 2012 - 812,572

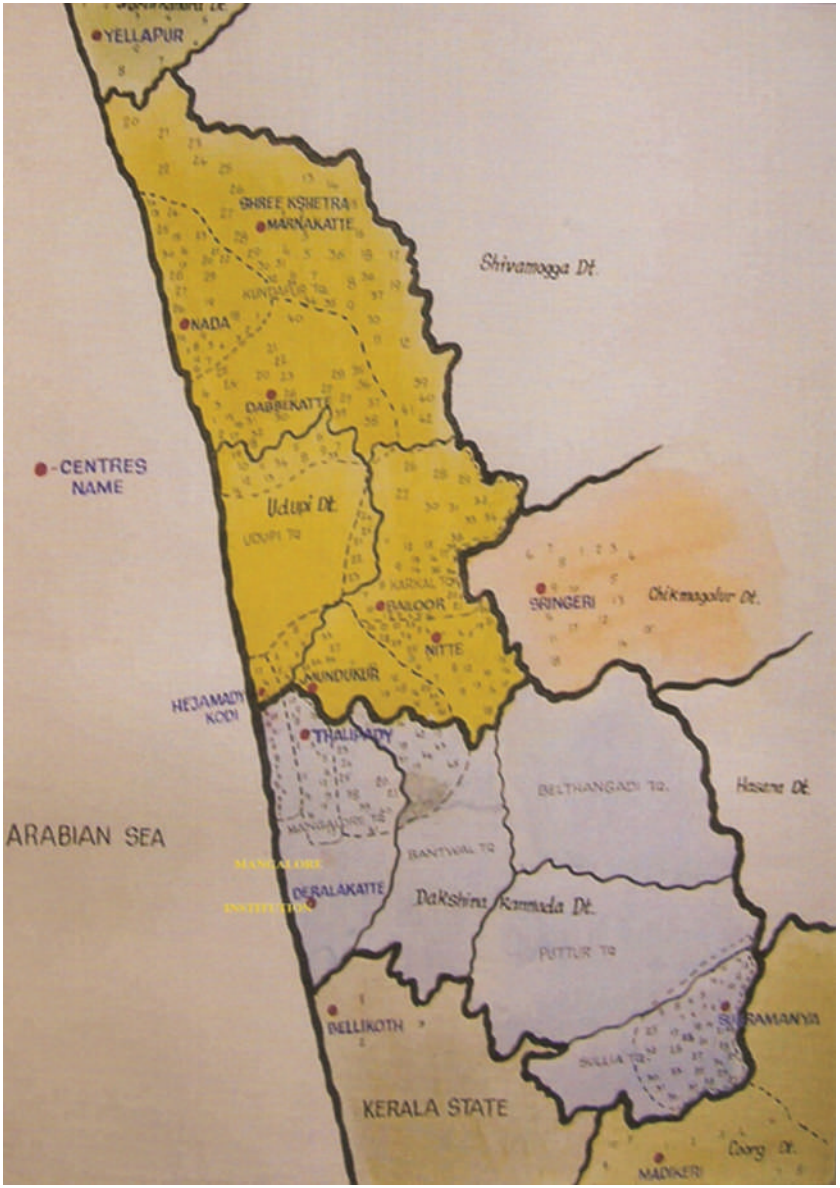
(The rural satellite center established at Yellapur was closed by 2006 for difficulty in co-ordination with the local volunteer.)



Rural Satellite Centers

LOCATION OF SATELLITE CENTERS

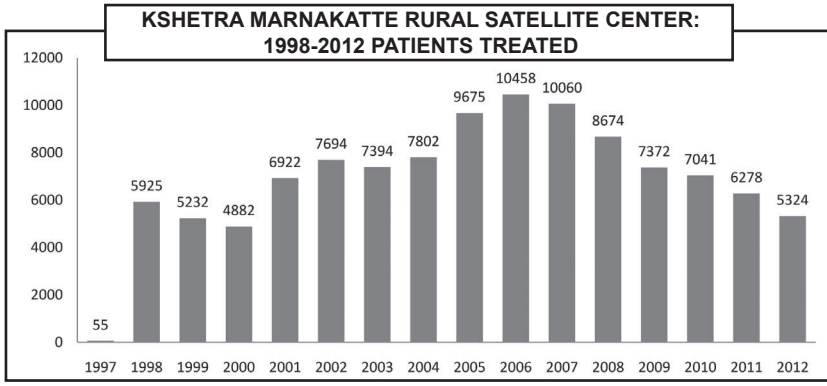
Deralakatte, Mangalore – Nucleus Hospital (Institution)
Number within the map indicates the villages around the satellite center



Chitoor Manjayya Shetty Free Dental Clinic, Marnakatte:
Kshethra Marnakatte Satellite Center

Total number of villages 45 | ESTD. 1997 | Distance: 145 km
Total number of patients Treated (2012) 111,138

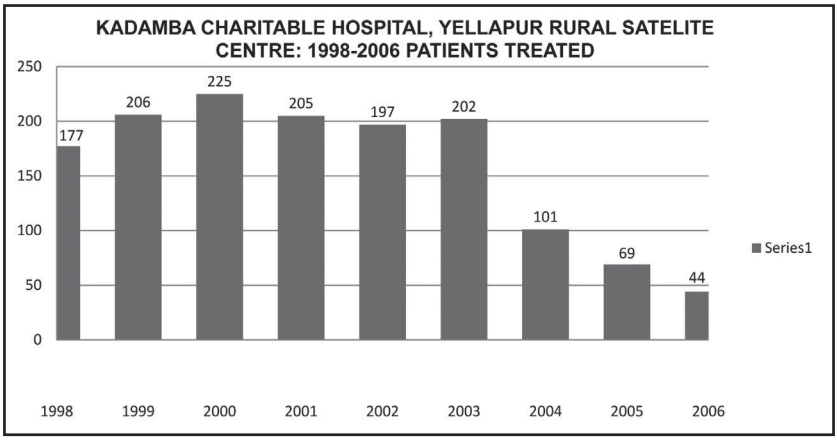
Names of the Villages	Population
Alur, Harkur,Chitoor, Hosur, Idukunchady, Haklady, Jujady	12,554
Kundabarandady, Vandse, Bellala, Kerady, Kollur, Yalajith, Golihole, Jodkal	10,819
Hosur, Maddur, Kerady, Belala, Byndoor, Yadthare, Thaggarse	31,785
Gujjady, Trasi, Hosadur, Siddapura, Hosangadi, Ajri, Kamalashele, Kodlady	21,738
Edmogge, Hallihole, Ullur, Belve, Manel, Albady	13,307
Shedimane, Hengavalli, Halady, Amasebail, Machhetti, Rachhody	10,618
Total:	**115,246**



Kadamba Charitable Hospital, Yellapur
Rural Satellite Center

Distance 320 km | Total Number of villages 12 | ESTD: 1998
Total Number of Patients Treated (2006) 1, 426

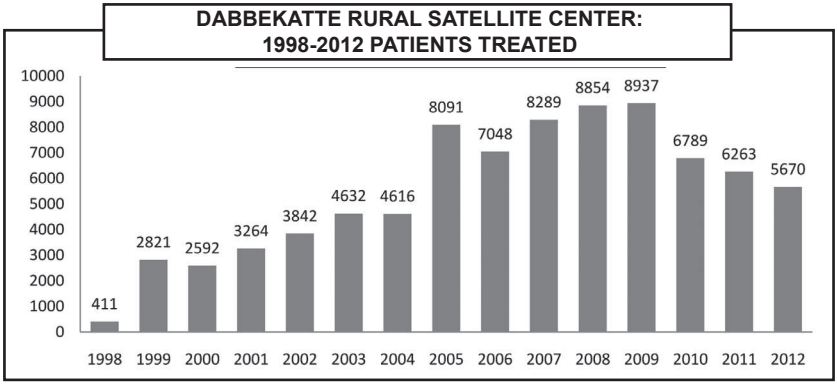
Names of the Villages	Population
Malavatti, Varalli, Chikmalli, Umachigi, Bare, Shegepal, Thattigar, Manalli, Yallapur	1,30,600
Total:	**130,600**



RTN.B.SunderHegde Rotary Dental Clinic, Dabbekatte
Rural Satellite Center

Total Number of Villages 39 | ESTD 1998 | Distance: 100 km
Total number of patients Treated 82,469

Names of the Village	Population
Bidkalkatte, Brahmavara, Kota	7,9287
Barkur, Saligrama, Thekkatte, Kumbasi	23,504
Beejady, Koteshwara, Basrur, Balkur, Angolli, Kani	25,375
Hanglur, Kodi, Kandavara, Kedur, Ulthur, Beloor, Kalavara	14,690
Asod, Heskattur, Vakvady, Korgy, Hardalli, Mandalli, Halladi	14,186
Yadyadymathyady, Molahalli, Hambady, ,Mandady, Japthi, Karkada, Varampalli	12,603
Chitrapady, Gudmi, Isody, Balakudru, Pandeshwar, Muduhadu	10,795
Total:	**128,623**

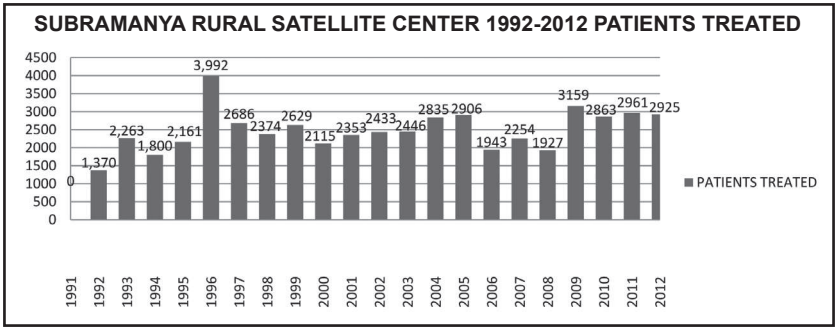


Sadananda Dental & Medical Health Centre, Subramanaya Rural Satellite Center

Distance 125 km | Total: Number of Villages 33 | Estd: 1991

Total patients treated(2012) 52,546

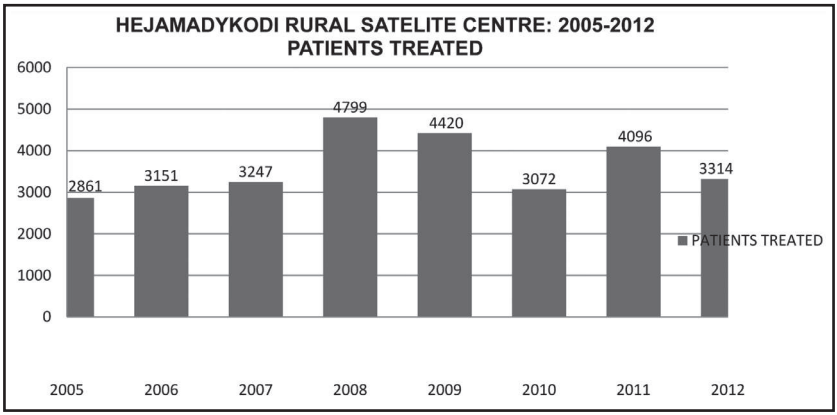
Names of the Villages	Population
Kadaba, Kodimbala, Balya	28,579
Noojibalthila, Subramanya, Enekallu, Balpa, Ivathoklu	18,254
Kenya, Kakkunje, Panjathady, Kalmadka, Yalamangala, Kollamogru, Kallakadu	7,059
Balathodu, Irekedu, Hariharapallathadka, Mudappady, Bellare, Pereevaje, Kodiyala, Kalanja, Balila, Muppina	22,555
Ivarnad, Murulya, Enmar, Guttigar, Nalkur, Amarmudnur, Amarpadnur	18,067
Nellurkemraje, Devachalle, Shiradi, Konebagilu, Sheribagilu, Ithur, Konaje	10,512
Total:	**98,026**



Meenakshi Hegde Memorial Dental clinic, Hejamadikodi
Rural Satellite Center

Distance 51km | Total Number of villages 19 | ESTD: 2005
Total Number of Patients Treated (2012) 50,923

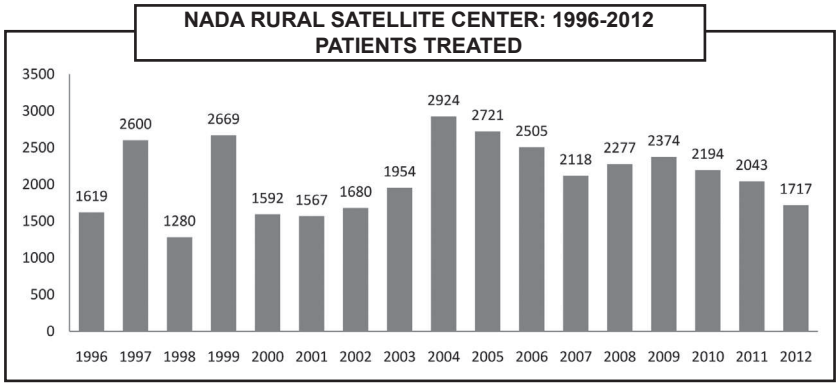
Names of the Villages	Population
Surathkal, Idya, Haleangady	52,912
Pavanje, Sasihithlu, Padupanambur, Bellaisu, Karnad, Bappanadu, Chitrapu, Kilpady	31,636
Mananpady, Hejamady, BadaErmal, ThenkaErmal, Nadsal, Padebettu, Uchila, Adamar	4,430
Total:	**115,999**



Rev. Fr. Robert Z. M. D'Souza Memorial Dental Clinic, Nada
Rural Satellite Center

Distance 135 km | Total Number of villages 20 | ESTD: 1996
Total Number of Patients Treated (2012) 36,094

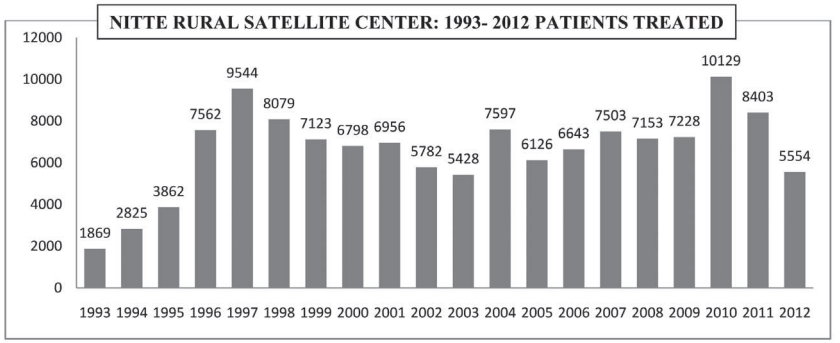
Names of the Villages	Population
Hattiangadi, Gulvady, Karkunje	12,554
Kanyana, Kenchanur, Gangalli, Hemmady, Devalkunda, Kattebelthen	14,690
Thallur, Uppinakudmi, Kirimanjeshwar, Kambadakone, Heranjala	19,678
Keregala, Nandanavana, Kalthodu, Nada, Senapune, Hadare, Badakere	15,225
Nallur, Heroor, Shiroor, Paduvasi, Maravanthe, Nananda, Gujjady, Trasi Hosader	21,207
Total:	**186,354**



K.S.Hegde Memorial Dental clinic, Nitte
Rural Satellite Center

Distance 65 km | Total Number of villages 29 | ESTD: 1993
Total Number of Patients Treated (2012) 132,464

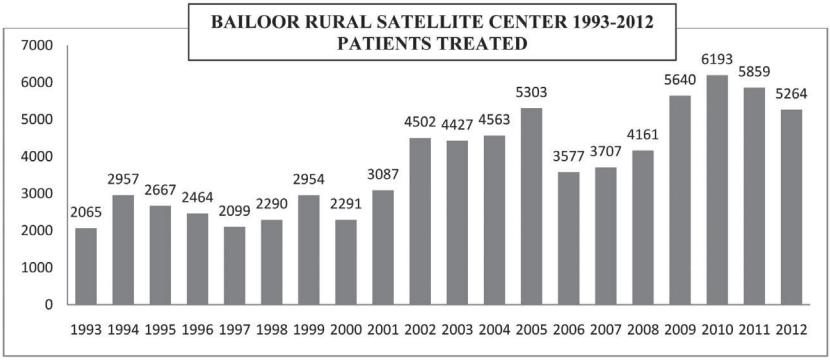
Names of the Villages	Population
Nitte, Bola	14,898
Kedinje, Mudar, Durga	13,089
Nallur, Belvai, Padumarnad	18,090
M.Marnad, Kanthavara, Renjala, Sanoor	17,400
Miyar, Iruvathur, Nellikaru, Mantrady	2,107
Iores, Nooralbettu, Kadthala, Ellare	5,146
Kukkaje, Hebri, Shivapur, Belinje, Kachan, Nadpala, Mudradi, Kabbinale, Jara	23,639
Total:	**109,267**



K. Srinivas Hegde Memorial Satellite Health Centre, Bailoor
Rural Satellite Center

Distance 85 km | Total Number of villages 39 | ESTD: 1993
Total number of patients Treated (2012) 76,370

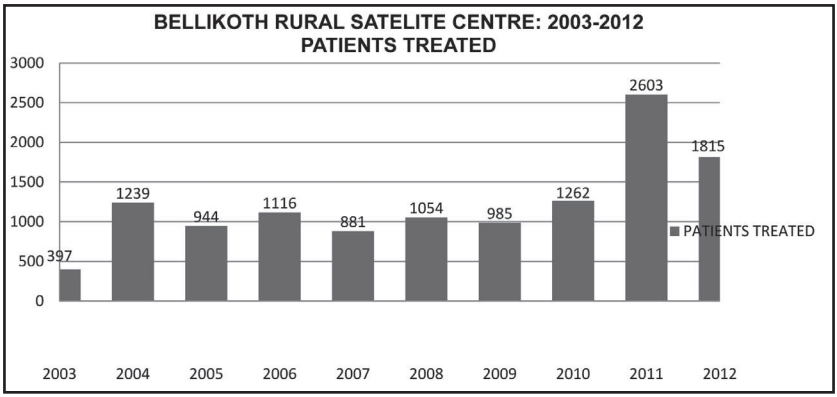
Names of the Villages	Population
Kukkundur, Hirgana	14,233
Nellikaru, Maritrady, Idu	9,872
Sooralabettu, Palli, Ninjin	8,835
Kalya, Bailoor, Kandoor, Neere	14,878
Kanjar, Erlapady, Marne, Hermende, Andary	14,622
Padukudma, Kervase, Varanga, Belle, Kattingur, Pernankda	14,937
Kudi, Anjar, Hiriyadka, Bommanbettu	25,257
Shiralli, Balagabettu, Athrady, Herga	20,747
Herebettu, Shirthady, Mudukonaje, Padukonaje, Valpady, Daregudde, Panipalla, Kellaputhige	11,905
Total:	**132,287**



Bellikoth Rural Satellite Dental Clinic, Bellikoth, Kasaragod
Rural Satellite Center

Distance 90 km | Total Number of villages 3 | ESTD: 2003
Total Number of Patients Treated (2012) 12,546

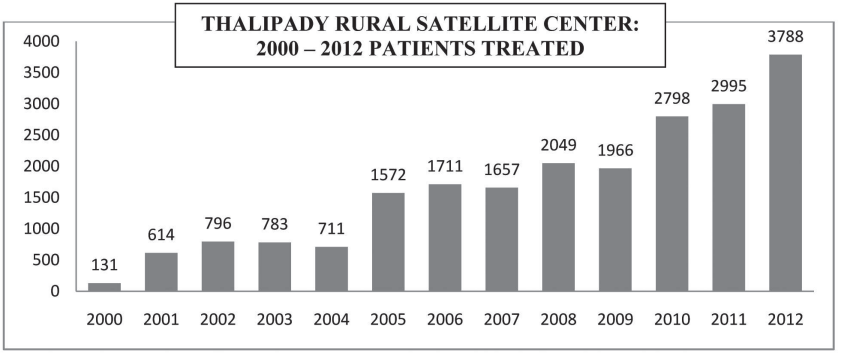
Names of the Villages	Population
Ajanoor	35,605
Chittari, Anandashirama	10,040
Total:	**45,645**



Thalipady Guthu Charitable Dental & Medical Health Centre
Rural Satellite Center

Distance 55 km | Total Number of villages 19 | ESTD: 2000
Total Number of Patients Treated (2012) 33,346

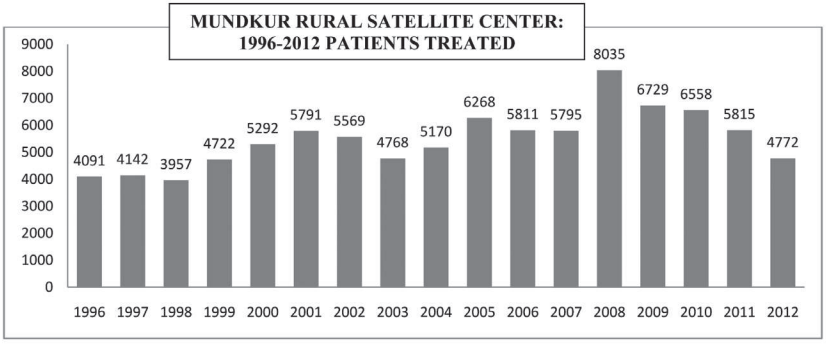
Names of the Villages	Population
Kondemola, Nadugodu, Kilinjar, Mennabettu, Badagayakkar	17,505
TenkaEkkar, Karnise, Balkunje, Kavathar, Kollur, Attur, Panja, Thalipadi Koikude, Kemral, Yalathur, Thokur	22,514
Total:	**40,019**



Nadiguthu Siddhu Shetty Memorial Dental Clinic, Mundkur
Rural Satellite Center

Distance 65 km | Total Number of villages 42 | ESTD: 1995
Total Number of Patients Treated (2012) 93,635

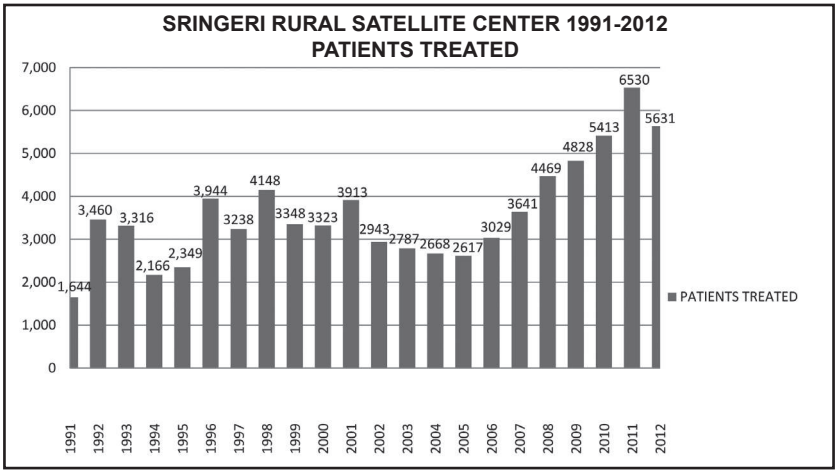
Names of the Villages	Population
Shirva, Belapu	21,589
Kuthyar, Kalathur, Katipalla, Koni, Udayavara	30,503
Kurkal, Mattu, Paladka, Kadandale	13,210
Puttige, Bajpe, P.Perar, M.Perar, Permude	27,988
Kuthethur, Kandavara, Adyapady, TenkaEkkar, BadagaEkkar, Ulepady	10,826
Ikala, Elinje, Inna, Mundkur	10,862
Mulladka, Kallamundkur, Niddodi, Badagamijar	13,273
Tenkamijar, Mudarangady, Yallur, Pilar	19,045
Palimar, Nandikoor, Pakshikere, Nadugodu, Katipalla, Soorinje, Bala, Chellairu, Madya, Delanthabettu, Kalavar	37,672
Total:	**164,978**



Dental Wing Sharada Dhanavantari Charitable Hospital, Shringeri Rural Satellite Center

Distance 145 km | Total Number of villages 18 | ESTD: 1991
Total Number of Patients Treated (2012) 79,705

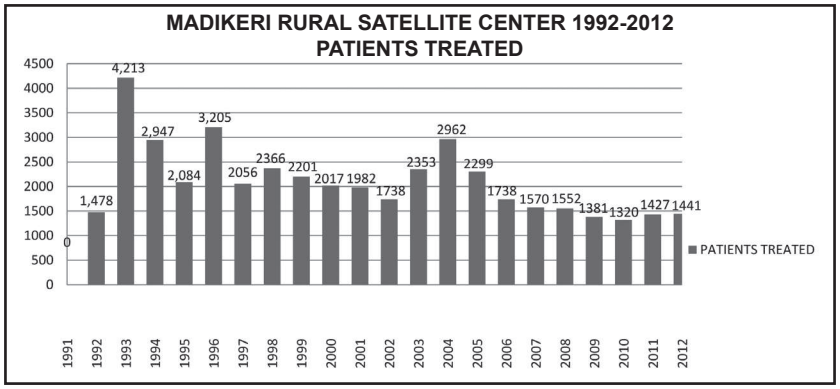
Names of the Villages	Population
Kunthur, Addgadde, Kavady, Kelakappa, Sringeri, Sachidanandapura, Bharathi Nagar, Kelakatte, Darekoppa, Beggar, Nemmar, Kesekatte, Kigga, Gaudakatta, Hulgar, Tekkur, Vaikuntapur, Kenchabail	
Total:	**101,026**



K.S.Hegde Memorial Dental Clinic, Ashwini Hospital, Madikeri Rural Satellite Center

Distance 135 km | Total Number of villages 16 | ESTD: 1992
Total Number of Patients Treated (2012) 45,612

Names of the Villages	Population
Madikeri, Virajpete, Somavarpete, Suntikoppa, Sampaje, Kushalnagar, Makkandur, Shettihalli, Siddapura, Nellidakeni, Murnad	
Total:	**260,504**

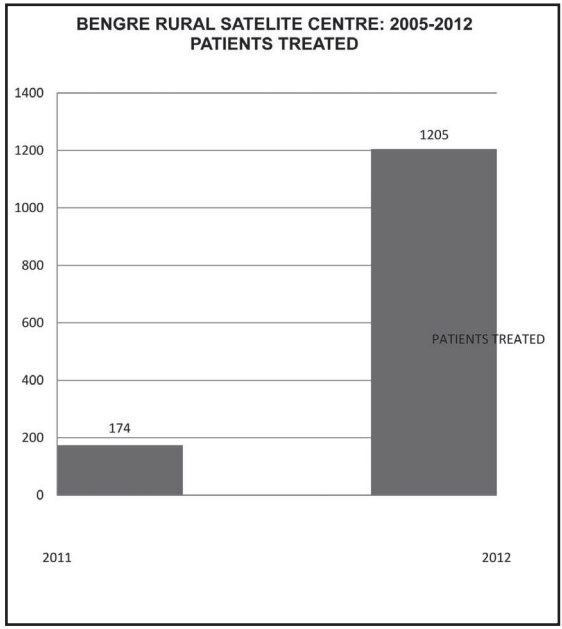


Bengre rural satellite centre: 2005-2012

Distance 10 km | Total Number of villages | ESTD: 2011

Total Number of Patients Treated (2012) 1,379

Names of the Villages	Population
Kasba Bengre, Bokkapattana Bengre, Kudila Bengre, Sandpit Bengre	25,000
Total:	**25,000**

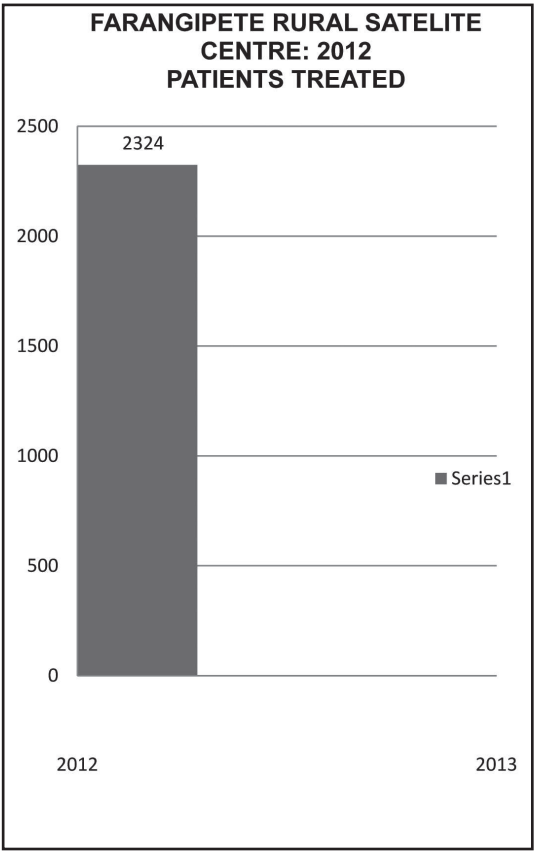


Farangipete Rural satellite centre : 2012

Distance 25 km | Total Number of villages | ESTD: 2012

Total Number of Patients Treated (2012) 2,324

Names of the Villages	Population
Padu, Arkula, Meremajal, kodman, thumbe, kallige-	46,500
Total:	**46,500**



To realize the concept and vision“Institutionalized Approach - Total Health Care For Rural And Semi Urban Population At The Door Step - Free Of Cost” - there is a need to establish health science teaching institution (Medical colleges and dental colleges) at rural areas with necessary amendments in the regulations and clusters of hospitals as satellite centers. The college (nucleus hospital) should facilitate the required qualified specialist manpower, equipment, and instruments, diagnostic and therapeutic measures for the prevention, diagnosis, cure and aftercare. The word “Satellite” is used to emphasize that there will be a continuous interaction between the satellite centers as well as the nucleus hospital for the management of patients and clinical teaching of students to create and facilitate Awareness, Accessibility, Availability and Affordability to the rural population.

A B Shetty Memorial Institute of Dental Sciences was established as per existing provision of statute requirements but for the purpose of implementing the concept and vision “Institutionalized Approach - Total Health Care For Rural And Semi Urban Population At The Door Step - Free Of Cost” , the rural satellite centers were established at rural towns and village centres selectively and progressively to create equality in health care. The village populations around these satellite centers are identified for accessibility and availability of oral and dental health care at free of cost. The rural satellite centers are provided with 2 to more dental chair and units and required instruments and materials. Each satellite center is facilitated with an intraoral x ray machine, sterilization equipments and generator. A required dental lab are also established in few centres attached to the clinic, which shares the prosthetic lab between other nearby rural satellite centers of the institution. Required man power such as doctors, clinical assistants, technician are appointed and posted as per the requirement of each satellite centers. They are facilitated by local volunteer by arranging food and accommodation wherever it is feasible. In other cases, it is arranged by the institution. The rural satellite centers of A B Shetty Memorial Institute of Dental Sciences have been established to provide comprehensive dental care free of cost to the patients in underserved areas. These centers create awareness about oral and dental health among members of the community. The centers ensure Availability and Accessibility of oral and dental health services free of cost to the population in rural areas.

The centers provide opportunity to students to experience and develop professional and interpersonal relationships with patients. The rural satellite centers also facilitate students to experience and understand rural populace culture, and community issues along with health and social issues.

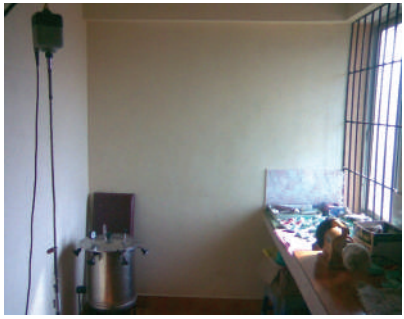
The satellite centers are established selectively. The village population around these satellite centers are identified for their accessibility and availability of the oral and dental health care facilities. Since excellent modern treatments are carried out free of cost, most of the satellite centers attracted patients from the neighborhood even up to 100 kms or more. Further higher specialty treatment are carried out at the nucleus hospital free of cost.

The Rural Satellite Centers

The Rural Satellite Centers are provided with 2 to 3 dental chair and units. intraoral x ray machine, sterilization equipments, required prosthetic lab.

Prosthetic Lab

Sterilization equipments



Intraoral x ray machine

ONE STEP CLOSER TO HUMANITY

I was posted at Rural Satellite Center of our Institution Situated at Kshetra Marnakatte: Chittoor Manjayya Shetty Memorial Free Dental Clinic, 142 KMS away from the A. B. Shetty Memorial Institute of Dental Sciences. This Satellite Center is named in memory of late Sri Chittoor Manjayya Shetty, father of our Founder Dean Prof Dr N. Sridhar Shetty. The Satellite Center was established with collaboration of local volunteer - Nailady Bhavani Shetty and Chittoor Manjayya Shetty Trust at the annexure of the Temple Lord Bramalingeshwara, Kshetra Marnakatte a hereditary family temple of Late Chitoor Manjayya Shetty.

What I learnt from the faculty during my studies kept ringing in my ear *"Treat Your Patients As If They Were One of Your Own, As If They Were Your Father or Mother"*

There was a lot of flow of patients at this satellite center and I was glad that I rendered treatment to those in need. I started interacting with them with the least knowledge of the language which kind of sounded funny but created a better rapport with the patients. This interaction gave me a chance to learn about the culture of the people there and of the blissful ignorance of health and dental care. I would seize the opportunity to educate about the various brushing techniques or oral hygiene habits to be practiced. Treating and educating those patients satisfied me from within and made me feel that I should do more for the people around me.

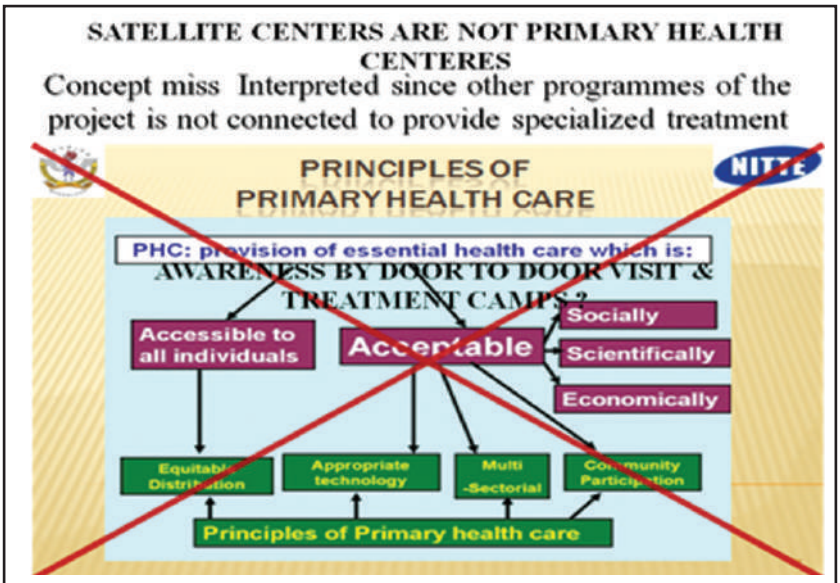
I experienced and realized how people here in the village live daily in harsh conditions. I also realized after my posting that I could adjust to many things. These postings have molded me to be a better person for I strongly believe now- hardships builds character!! This gave me a sense of belongingness

Kshetra Maranakatte Rural Satellite Center

in that place. It was really relaxing yet busy in the clinics where you will begin to cherish your profession. I got to learn that, just relieving the patient of his/her pain or rendering a required treatment isn't enough but we should empathize with the patient. We should make them aware of what they are susceptible of.

I am grateful to my institution for establishing rural satellite centers, so that the cries and sufferings, of the ignored public are also heard. They also should be provided with quality health care just as their fellow human beings in the cities. I would personally say to my fellow health care professionals-we should at least do a year of public service at rural satellite centers before our practice or at least a month every year of our practice in these satellite centers. The happiness we see in those patients is more valuable than what money can give. I felt the love these people showed me the day I bid farewell to Kshetra Marnakatte Satellite Center. A young girl gifted me with a portrait of their temple Deity Lord Bramalingeshwara which touched me and left me with emotional connection to that place and the people around over there. Ours is a godly profession and we have been sent to earth to serve, as quoted in the Holy Bible "what you did for the least of your brothers you did for the Almighty".(Mathew 25:40)

BLESSEN MATHEWS
(Intern – A.B. Shetty Memorial Institute of Dental Sciences, 2008 Batch)



Concept is Miss Interpreted. All programs of the project is not connected. No house to house visit to create health Awareness, Epidemiological studies and also to make provision to bring personals needing hospital and specialist health care at free of cost. It is also not associated with teaching institution where the facility of advanced technology, diagnostic and treatment facilities as well as qualified skilled faculty and graduating students.

Oral and Dental health Awareness and treatment camps (weekly)

Regular oral and dental awareness and treatment camps are organized by the Institution since 1987.

It is being implemented by associating and interacting with the local village leaders, local voluntary organizations, grama-panchayaths, charitable institutions and NGO like Rotarian, Lions etc., are taken into confidence for dissemination of information and broader participation.

These volunteers are requested to publicize the program and pool the patients at the proposed treatment centers like the village centers or schools or community hall etc. They are also requested to arrange and provide food and water free of cost for these patients, since the patients have to be present from 8 AM to 6 PM continuously at the camp site.

These agencies are requested to facilitate and make arrangements for clinical work places furnished with chairs, tables and benches. This work place is requested to be prepared in advance to simulate a clinical environment at the camp site –a clinical work station for practice in a hygienic and sterile

environment (cleanliness with disinfectants).Provision for water, electricity/ generator, toilets and provisions for waste disposal are also arranged for.

As the number of patients would vary from 50 to 5000 on an average, and that number of dental chairs is not feasible to be transported, a concept of a “Dental work station” was introduced.

The patients are made to recline over the cushioned boards, placed against the back rests of any ordinary chair, which enables the patient’s head and neck to be stabilized, being pre-requisite for any dental treatment.

The dental treatment work stations consist of all the modern high tech instrumentations (portable- airoter, micro motor, ultrasonic scalar, compressor, generator support) practiced in a hygienic and sterile environment.

The treatment is carried out by the post graduate students, interns and under graduate senior clinical students under the supervision of the faculty members.

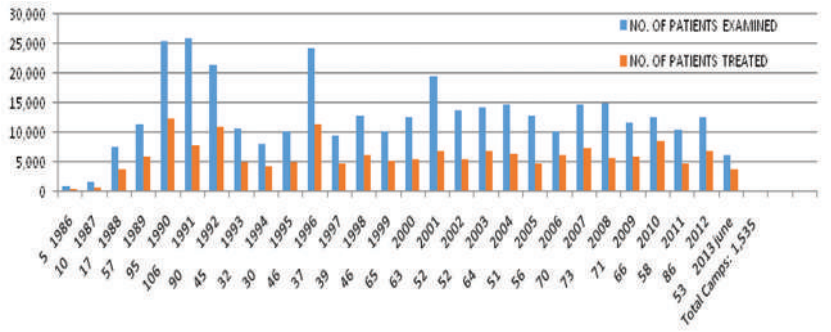
The material cost and expenses for the medicines are borne fully by the Institution.

All the protocols for sterilization, asepsis and infection control are observed meticulously. Hospital waste management (sharps and non-sharps, bio-degradable etc.) is carried out by collecting all materials in disposable bags and carried back to the institution for incineration.

Such of those patients who require aftercare and need specialized care are referred to the satellite centers or to the institution.

The referred patients are provided with free transportation, food, and accommodation along with a relative, if necessary.

ORAL AND DENTAL AWARENESS AND TREATMENT CAMPS CONDUCTED AND PATIENTS BENEFITTED



In the year 2011 and 2012, number of patients treated was over 175,000 and over 200,000 patients were screened and Awareness was created.

Health awareness at the doorstep (house to house visit)

A “Health Assessment Team” comprising of faculty members, post graduate students, interns and under graduate clinical students, Interns and Under Graduate clinical students is formulated. Teams will be utilizing a institution developed questionnaire (having holistic approach) which enquires about demographic details, health awareness and status, and target diseases in the selected areas. The questionnaire gives the skilled health care provider an opportunity to interact with the population for better awareness and understanding of existing health problems and their prevention. Teams, each comprising of five commanding health care providers, equipped with a structured kit, carry out house to house visits to create awareness by using the “Institutional Questionnaires”, structured for holistic approach and “W.H.O (Dental) Survey Forms”, which help to obtain the data regarding the dental and medical health status of the individuals and their families. People are also made aware of any existing social or individual health problems or hazards which need to be addressed.

Team is provided with portable oxygen, emergency medicine and first aid kit.

The social workers and local volunteers, well versed with the language, geographic area and the people form a “link” persons.

Thus post graduate students, interns and under graduate clinical students get exposed to the rural population and carry out epidemiological surveys, which help them to better understand the health status in neglected rural areas.

Auto immune deficiency Awareness rally

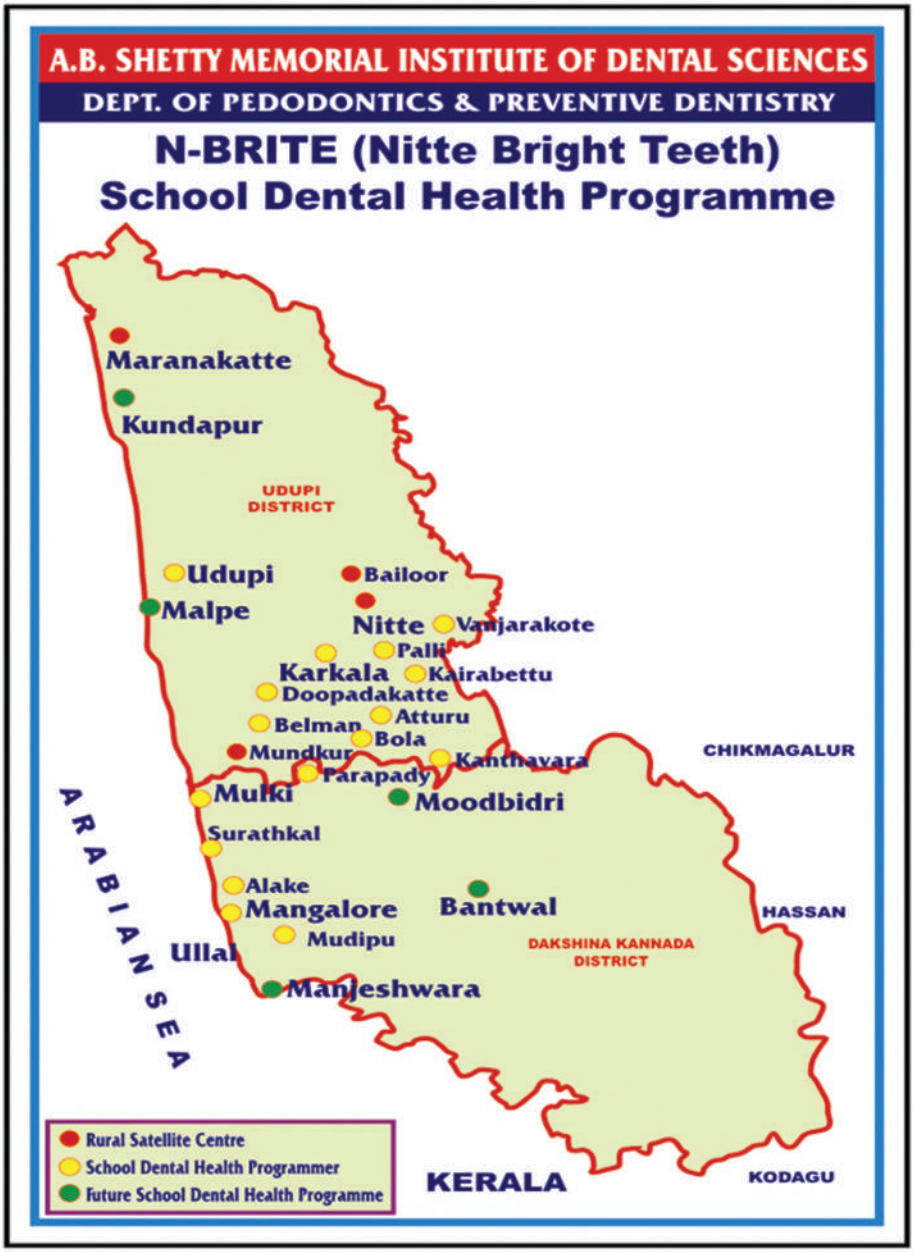
Late Mrs Veena Dhari, executive for a AIDS related NGO with Prof. N. Sridhar Shetty and senior faculties and students.

Awareness rally

Street play

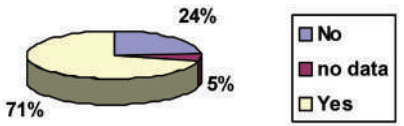
Street play for health awareness. Capt. Karnik, MLC, Prof. N. Sridhar Shetty and Prof. U.S. Krishna Nayak and students.

N-BRITE SCHOOL DENTAL HEALTH PROGRAM FOR PEDIATRIC ORAL AND DENTAL HEALTH AWARENESS

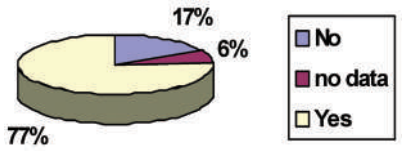


Findings of the Epidemiological Survey Report

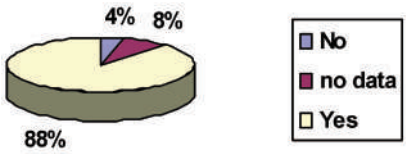
Have you heard of Oral Cancer?



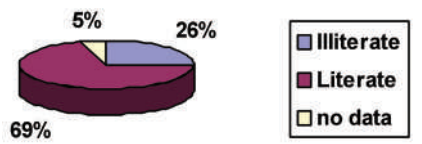
Have you heard of AIDS?



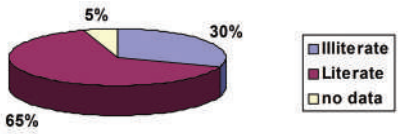
Do you use footwear?



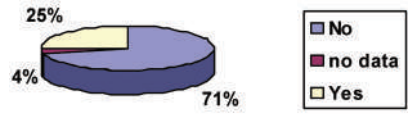
Literacy of father?



Literacy of mother?

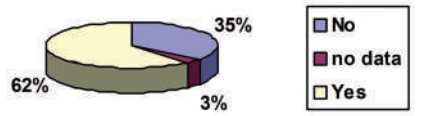


Refrigerator in house?

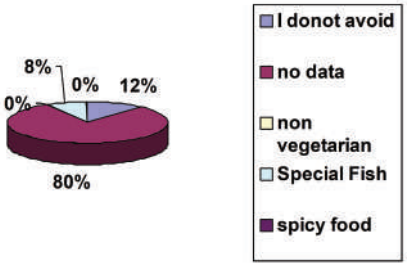


Did you give pulse polio?

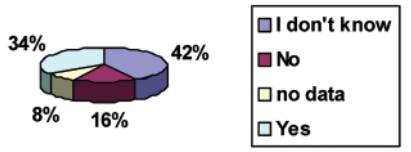
Television in house?



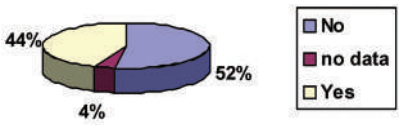
What type of foods do you avoid during pregnancy?



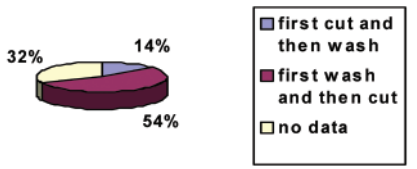
Do you use a fluorized dentrifice?



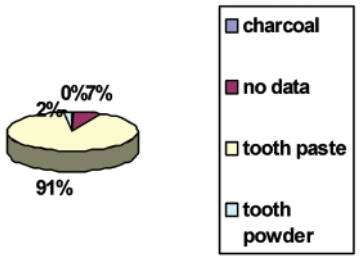
Telephone in house?



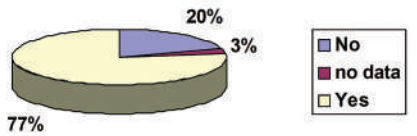
Cut/Wash?



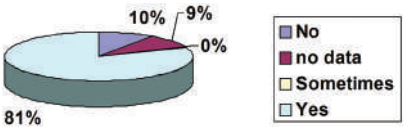
What do you use to clean your teeth?



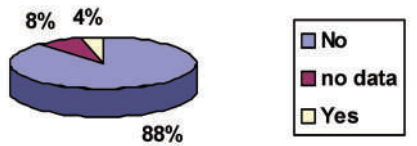
Have you visited a dentist before?



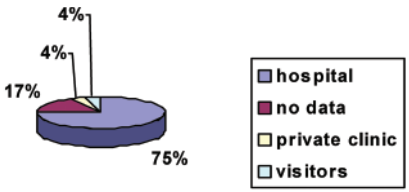
Are the children going to school?



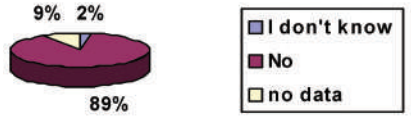
Do you chew paan?



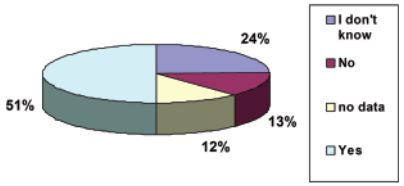
Where did you vaccinate your child?



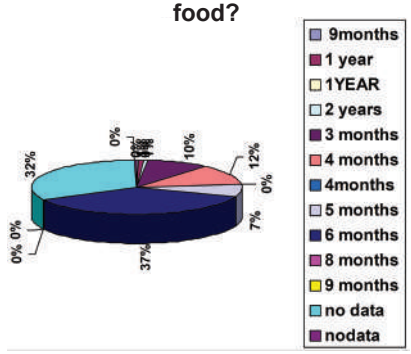
Do you think paan chewing is good for health?



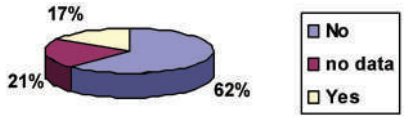
Do you use Iodized salts?



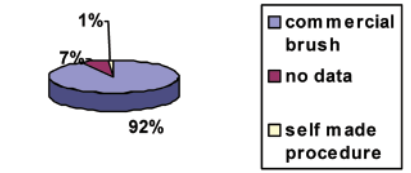
When did you start semi solid food?



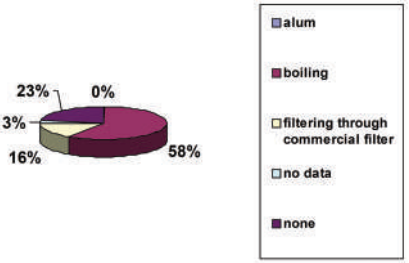
Did a health visitor come for vaccination?



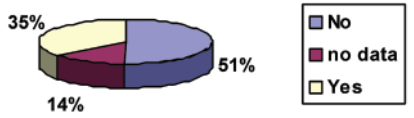
What type of tooth brush do you use?



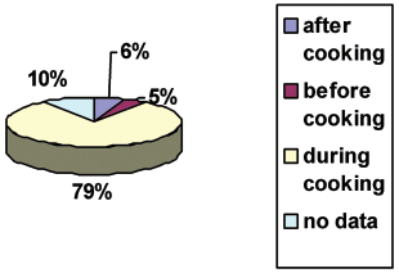
Water purification method?



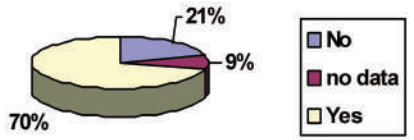
Is the distance between water source and toilet less than 50 metres?



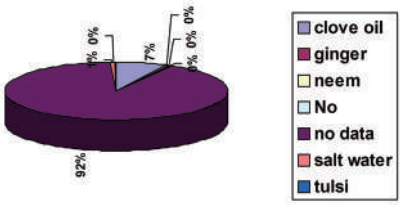
When do you add salt?



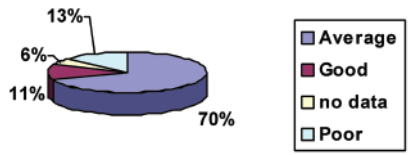
Do you have a card for vaccination schedule?



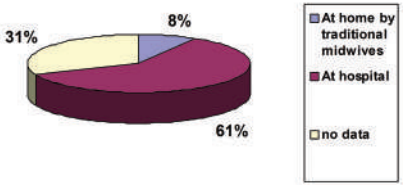
Do you know any herb for relieving dental pain?



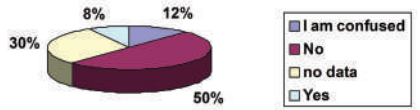
Socio-economic Status (By recorder's assessment)



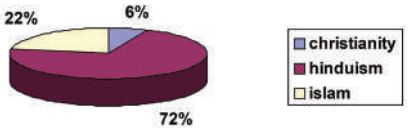
Where are the babies born?



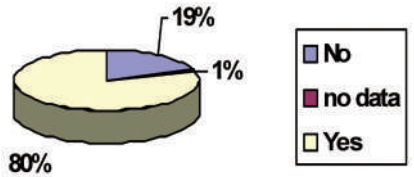
Do you believe in spiritual healing?



religion



water purification done?



COMPREHENSIVE HEALTH AND DEMOGRAPHIC SURVEY IN AN INDIAN RURAL COMMUNITY:

A study for assessment on community involvement for health development (CIH)

Motto: Total Health through oral health

Form No.:	Examiner's name:	Date: / /

- Type of family: Single family/joint family
- Religion of the family: Caste Status: _____/SC/ST
- Head of the family: Name:

  Relation:

HOUSE DESCPRIPTION:

- Type of House: Straw/Bamboo/Tile/Tin/Wood/Concrete/others
- Number of rooms:
- Number of trees in the compound:

DEMOGRAPHIC INFORMATION AND INFORMATION ON ECONOMIC SITUATION:

- Number of occupants : Total: ___Male___Female ___
- Number of children below 18 years of age : Total: ___Male___Female ___
- Number of adults above age 60 : Total: ___Male___Female ___
- Total number of earning members in the family:
- Profession of the members: _____ _____

  _____ _____
- Average monthly income of the family:
- Socio-economics status (by recorder's assessment): Good/ Average/ Poor
- Do you own land for cultivation? Yes / No
- If yes, area of cultivable land: Crop grown:

  (If rice is not being grown in the land): Reason:

- Do you have crop insurance/ life insurance/ health insurance?(mark whichever applicable)
- Literacy rate of members: _____ _____

  _____ _____
- Are the children going to school? Yes / No / Not regular

Miscellaneous information:

Electricity: Y/N Refrigerator: Y/N

Television: Y/N elephone: Y/N

SOURCE OF WATER:

- Source of drinking water: Bore well/ Tube well/ Open well (with wall/ without wall)/ Pond/ River/ Canal/ Others
- Do you purify your drinking water? Yes/ No

  If yes, method of purification: Boiling

  Filtering: commercial filters/alum/others
- What is your main source of water for purposes other than drinking? Bore well/ Tube well/ Open well (with wall/ without wall)/ Pond/ River/ Canal/ Others
- Is this water source common for bathing/swimming/animal drinking/animal washing/cloth washing? Yes / No
- Is this water source close to places of urination or defecation? Yes / No
- Used water is drained by open drainage/ closed drainage/ draining to coconut trees/ vegetable gardens/ backyard drainage
- Is the open drainage sprayed frequently with insecticides for control of flies and mosquitoes? Yes/ No

  If yes, frequency: _____

TOILET FACILITIES:

- Sanitary or pit latrine/ open space/ river banks/ canal/ pond/man made toilets/ others
- If sanitary toilet, is it used regularly? Yes / No
- Are all the members of the family aware that use of the toilet facility is hygienic? Yes / No
- How often are toilets cleaned with disinfectants?
  - Immediately after use/Daily/ Twice a day/ Weekly/ Occasionally/ Not at all

- Is the distance between toilet and source of drinking water more than 50 metres? Yes/ No
- Do you wash hands after toileting? Yes / No (If Yes, with soap/ without soap/ others)
- Water source in toilets- flush/ tap fitted in toilet/ water buckets/ tanks

PERSONAL HYGIENE:

- Do you bathe regularly? Yes / No

  Frequency: Once a day/ Twice a day/ More *(Using soap/Using other detergents/other scrubs)*
- Do you use footwear? Yes / No
- Do you wash your hands before food? Yes / No / sometimes *(With plain water/soap/detergents/others)*
- Do you trim your nails regularly? Yes / No
- Do you spit in public places/ roads? Yes / No

RELATED TO TREATMENT:

- Where do you go for treatment? *Private clinic / Personal or Family doctor/ Village Doctor / Ayurvedic doctor / Homeopathy/ Home remedies/ others*
- Is the doctor easily accessible to you? Yes / No
- Distance between your home and the nearest clinic or hospital. _____
- Mode of transport to the hospital: *On foot / Motor transport/ By waterways*
- Are the treatment facilities available to you? Yes / No
- Are the treatment, drugs etc. affordable by you? Yes / No
- What will you do if your child suffers from diarrhea? *Get medicines from a doctor / get medicines from a drug store/ Go to hospital/ Home-made saline/ tender coconut water/ ORS and medicines / others*
- Are you aware of target diseases in your area? Yes / No
- During the last one year did any health worker visit/ provide information on: *General health/ Oral health / Family planning / Mother & Child care/ others* Yes / No
- Do you have any drugs stored in your house? Yes / No If yes, mention the drugs _____
- Who prescribed those drugs? Specify, _____
- Do you believe in spiritual healing? Yes / No / Confused

  If yes mention some beliefs _____

RELATED TO RESPIRATORY INFECTIONS/ OCCURRENCE OF COMMUNICABLE DISEASES:

- Did any of your children suffer from fever and severe cough during the last 6 months? Yes / No
- Has anyone in the family suffered from Malaria/TB/Haemmorhagic fever (last five years)?Yes/ No

  If yes, number of persons who suffered? _____
- Has any one in the family suffered from Malaria/ TB/ Haemmorhagic fever earlier than that? Yes / No

  If yes, number of persons who suffered? _____

RELATED TO PREGNANCY:

- Where do the deliveries in your family take place? *At home by midwives/ in a hospital/ others* _____
- In case of home delivery where does the delivery take place? *In a temporary hut /Room of the house*

  - Method of asepsis _____
- What foods do you usually avoid during pregnancy?
- Do you understand by family planning? Yes / No
- Do you know the importance of carbohydrates/proteins/fats/minerals/ vitamins etc. (nutrients) for the growth and development of your foetus? Yes / No
- Do you know the source and quantity required? Yes / No

RELATED TO IMMUNIZATION /VACCINATION

- Did you maintain a card for vaccination schedule? Yes / No
- Where did you get your child vaccinated? *Hospital / visitors / Private clinic/ Others*_____
- Did you get your children vaccinated for pulse polio? Yes / No / Not aware of polio
- Are you vaccinated for tetanus? Yes / No / Not aware of tetanus

KNOWLEDGE ON NUTRITION:

- What do you think is good for your baby? Breast feeding/ Commercial preparations
- At what age did you start semisolid food for your child? At 3 months/4 months/5 months 6 months/later

- Did your children take vitamin 'A" capsule in the last 1 year? Yes / No
- How do you prepare vegetables? First cut and then wash/ first wash and then cut
- Do you use Salt before / during/ after cooking?
- Do you use iodized salt? Yes/ No

RELATED TO ORAL HEALTH:

- Did you visit a dental surgeon before? Yes / No

  If No, why? Not affordable / not accessible/ fear of the treatment/ no related ailments
- What you use during cleaning teeth? *Tooth brush/ Finger/ Twigs/ Leaves/ Tooth paste/ Tooth powder/ Ash / Salt/ Charcoal/ others*_____
- Do you know any herb or traditional method which can relieve your dental problem? Yes / No

  Mention, if any _____
- Do you know what fluoridated dentifrices are? Yes / No

RELATED TO PERSONAL HABITS:

- Do you smoke? Yes / No.

  If yes, Duration of the habit _____

  Quantity/day _____
- Do you chew Paan? Yes / No

  If yes, Duration of the habit _____

  Quantity/day _____
- Do you think paan chewing is good for health? Yes / No / I don't know
- Do you consume alcohol? Yes / No

  If yes, how many times a day? _____

  Duration of the habit _____

PARAFUNCTIONAL HABITS:

- Nail biting: Yes / No
- Thumb sucking: Yes / No

RELATED TO KITCHEN POLLUTION:

- What do you use for cooking? Wood/ Gas/ Others _____
- Do you know excess smoke in the kitchen/ house can cause Lung cancer? Yes / No

KNOWLEDGE ON ORAL CANCER AND AIDS:

- Did you hear about oral cancer? Yes / No
- Do you know what causes Oral cancer? Yes / No. If yes, mention _____
- Do you know what AIDS is? Yes / No

ON ELDERLY PERSONS:

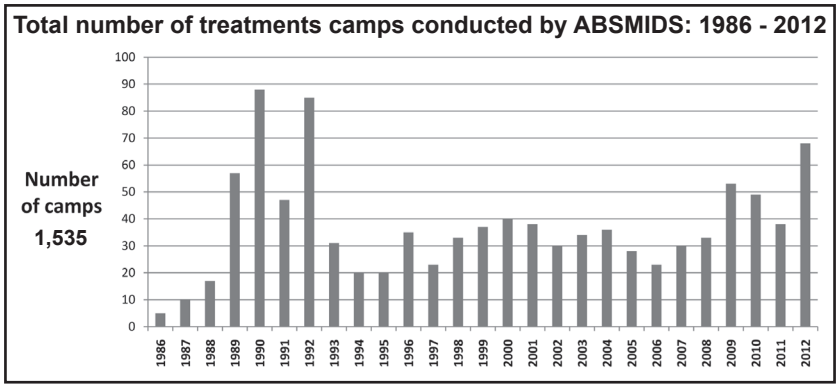
- Number of persons above 60 years of age in your family: _____
- Do you take care of their daily needs/ nutritious foods/ medicines/ hygiene etc.? Yes / No
- Is he or she healthy? Yes / No
- When he or she is sick, who takes care? Family member/ Outsider
- Do you agree that if the old persons are kept in Old Age Homes, they will feel better? Yes / No

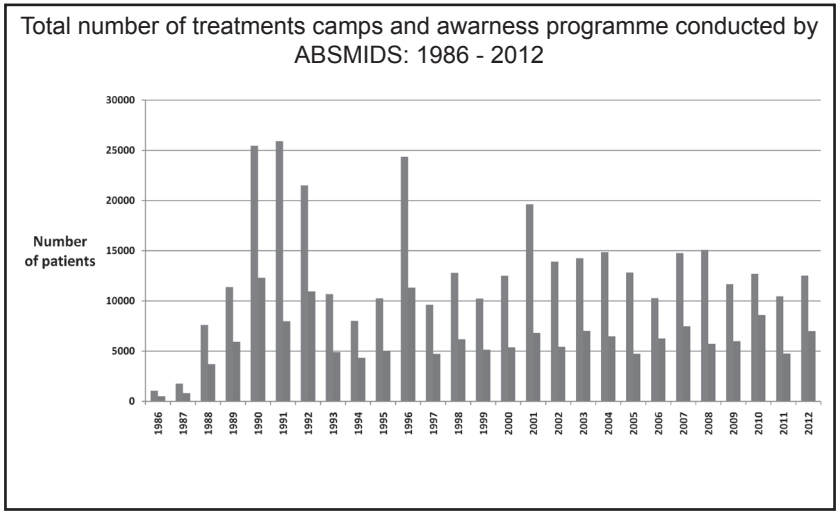
  Comments if any:

The above survey form for the project "Institutionalized Approach for Total Health Care to the Rural Population At their Doorstep, Free of Cost", was developed by Prof (Dr.) N. Sridhar Shetty, A. B. Shetty Memorial Institute of Dental Sciences, Deralakatte, Mangalore.

Localities	Number of Houses	Houses Surveyed	Population Surveyed	Treatment Done
Chitoor Year: 2000-01	670	260	1024	924
Idurkunjanady	432	114	512	312
Nitte Year: 2002-03	1851	814	3800	2060
Hejamadykody Year: 2005	48	44	110	98
Mukka Year: 2005	69	60	290	128
Sasihithlu Year: 2005	435	435	1232	231
Total	**3505**	**1727**	**6968**	**3753**

Charts showing details of treatments camps and awarness programme conducted by A.B.Shetty Memorial Institute of dental sciences: 1986-2012





Treatment Reports

Rural Satellite Centers	812,752
Awareness(including house to house visit)	368,934 (and more since street play attendance cannot be recorded)
Dental Treatment Camps	164,944
Total patients benefited	**1,346,630**

1.5 million patients were benefitted by 2006 and more than 2 million people by 2012

STREETPLAYS

Health awareness is the most essential phase for health development of rural Indian population. It is necessary to create knowledge regarding diseases and its prevention. Manpower at the health teaching institutions (students, teachers etc.) comprises health professionals with knowledge of diseases, its cure, prevention and aftercare. The students and faculty with extracurricular talent can write poems, short plays and folk songs on diseases and related public health issues -potable water, personal hygiene and sanitation, habits and culture, nutrition, maternal and child health, geriatric health, family welfare, environment and occupational health hazards etc to enact street plays. These health experts performing street plays, folk dances etc, should be able to communicate with the society and create a lasting impression for proper health care and prevention of diseases. Extracurricular talents of students should be streamlined and utilized. Street plays, folk dances, etc. should be used as a medium for the health awareness program with above holistic concept as it would create better understanding of the various health issues. Street plays, dramas, folk dances and lectures are being used to effectively convey the ideas to the rural population at souks, markets and around satellite centers.

Health Awareness is a component of author's vision and concept of "Institutionalized Approach Total Health Care for Rural and Semi Urban Population at their door Step Free of Cost." Modified curriculum including street plays, folk dances, etc., would enhance the ability of the doctors and students to better communicate with the society for effective health awareness.

For the purpose of introducing this at A B Shetty Memorial Institute of Dental Sciences, faculty and students visited small rural towns on week ends and holidays to enact street plays mostly focusing population around institution's satellite centers, without disturbing study hours requirements within the institution as per present curculum.

Street plays on rural health care from today

TIMES NEWS NETWORK

Mangalore: As part of the 'Institutionalised approach for total health care for rural and semi-urban population at the door step', initiated by the A B Shetty Institute of Dental Sciences, a team of 50 students will perform street plays at various places in Dakshina Kannada, Udupi and Chikmagalur districts.

A release said that the themes of the street plays include habits, infectious diseases, culture and education, personal hygiene and sanitation, water, AIDS among other issues.

NOTICE BOARD

The team will perform in Yellapur, Sirsi, Kumta and Honnavar (March 14), Shringeriu, Moodabidri, Gurpura and Kaikamba (March 16), Byndoor, Koteshwaras, Padubidri and Suratkal (March 17) and Subramanya, Dharmasthala, Uppinangadi and B C Road (March 18).

Street plays, dramas, folk dances and lectures are being used to effectively convey the ideas to the rural population (souks, markets and around Satellite Centres).

Sri. N.V. Hegde, Chancellor, along with Prof. N. Sridhar Shetty - participated in street play to inspire and encourage

Personal hygiene and civic sense

Habits and Oral Cancer

Family Planning

AIDS Awareness

Water Polution and diseases

Street Play for Consciousness and awareness for rural masses

School Dental Health Programs:

Primary schools in the command area are adopted. Holistic approach is pursued to create oral and dental health awareness along with general health awareness and also to provide preventive measures as well as treatment at the designated schools in association with school teachers and parents.

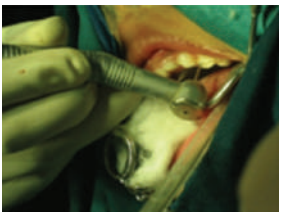
Any required emergency treatment is carried out at the school and later the children are transported to the Institute for total oral and dental health care, if required.

School Dental Health Programme emerged as one of the most successful programme with the participation of qualitative and quantitative faculty, post-graduate students(since 1991) and under-graduate students.

40-50 camps are conducted every year and more than 50,000 school children are screened and oral and dental health awareness is created .

Special Children with Special Attention for Pedodontic Care

At The Nucleus Center(Institution)
Full Mouth Rehabilitation For A Child With Glanzmann's Thrombasthenia (Bleeding Disorder) Under General Anesthesia:

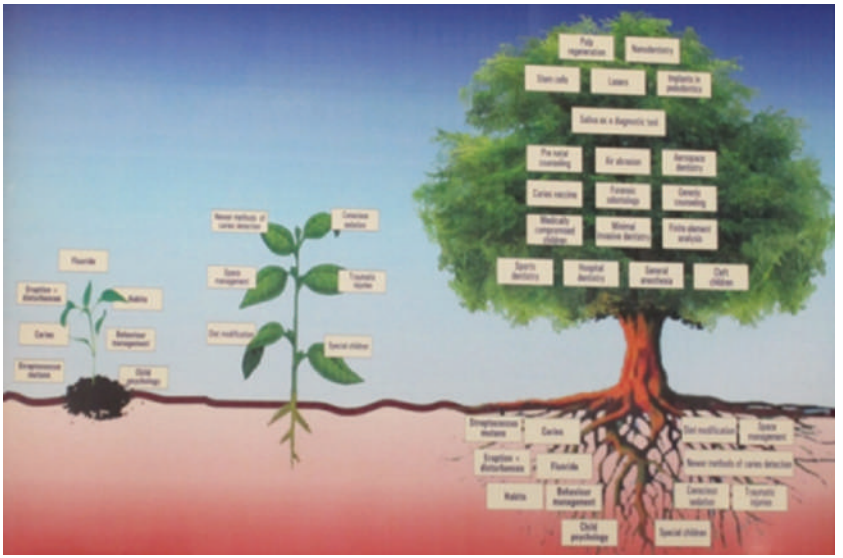


PETECHIAE SEEN ON UPPER BODY

Children with special health care needs are those children whose psychological development,social expression, play and/or work is compromised due to physical or mental problem or both

Oral Health Awarness and Prevention Program at Adopted School

Pedodontic Treatment Programme at School



IMBIBING KNOWLEDGE TO REACH GREATER HEIGHTS WITH GREATER EXPERIENCE TO EQUATE HEALTH CARE FOR ALL.

CHILDREN ARE TREATED AT NUCLEUS HOSPITAL FREE OF COST (INSTITUTION)

SCHOOL CHECK UP CAMPS CONDUCTED (YEARWISE)		
YEAR	NO.OF CHECK UP CAMPS CONDUCTED	NO. OF SCHOOL CHILDREN EXAMINED
1986	-	-
1987	-	-
1988	-	-
1989	-	-
1990	6	13,135
1991	57	17,949
1992	5	10,530
1993	12	5,764
1994	6	3,663
1995	9	5,269
1996	7	13,041
1997	10	4,901
1998	3	6,611
1999	9	5,119
2000	22	7,137
2001	18	12,783
2002	18	8,475
2003	16	7,218
2004	24	8,344
2005	23	8101
2006	23	4017
2007	21	8242
2008	6	2352
2009	11	3086
2010	24	6026
2011	19	3226
2012	57	6124

CHILDREN ARE TREATED AT NUCLEUS HOSPITAL FREE OF COST (INSTITUTION)														
					Restoration									
Year	O.P	Old patient	Oral prophylaxis	Topical fluoride application	Aesthetic	Others	Extraction	Pulp therapy	Crown	Space maintainer	Interceptive treatment	Minor surgery	Cleft	Hospital pediatric dentistry
2002	1453	3492	823	505	477	1530	597	468	339	272	168	56	80	32
2003	1110	4348	367	310	841	1222	459	386	233	214	136	32	40	36
2004	1241	3641	365	565	349	1311	660	598	323	277	266	27	151	43
2005	1919	7189	2251	1168	233	3020	971	684	165	283	38	21	67	17
2006	7486	1621	763	237	3294	1117	684	165	283	38	21	67	17	9
2007	1454	5545	1090	552	362	2470	797	549	238	289	292	31	79	25
2008	2132	3666	1362	441	103	1996	853	403	188	140	347	15	108	4
2009	2727	6639	2587	720	360	3624	1386	528	220	159	460	47	250	9
2010	2928	5103	2745	370	164	1860	982	1634	244	323	153	116	209	34
2011	2817	4583	959	99	19	1860	1080	1808	199	269	189	28	178	29
2012	4510	9133	1628	417	37	2922	1119	2435	378	330	171	41	128	865

CHILDREN AS WELL AS SPECIAL CHILDREN ARE TREATED AT SCHOOL(COMMAND AREA)									
Year	Patient treated			Hospital Dentistry		School programs			Rural Oral health care (No. of patient treated)
							No. of children who received		
	New Patient	Old Patient	Total Patient	Children with Clefts	Special children	No. of Camps	Oral Health Education & Screening	Treatment	
2002	1453	3492	4945	80	32	16	2695	1231	
2003	1110	4348	5458	40	36	13	2010	884	
2004	1241	3641	4882	151	43	14	1995	570	
2005	1919	7189	9108	67	17	9	1695	715	1503
2006	1672	7486	9158	70	17	9	1695	715	1403
2007	1454	5545	6999	79	25	21	8242	2230	1767
2008	2132	3666	5798	108	4	6	2352	405	1222
2009	2727	6639	9366	250	9	11	3086	264	1508
2010	2928	5103	8031	209	12	24	6026	2349	1395
2011	2817	4583	7400	178	16	19	3226	1122	1564
2012	4510	9133	13643	128	59	57	6124	3291	2635

Nucleus Hospital
A.B. SHETTY MEMORIAL INSTITUTE OF DENTAL SCIENCES, DERALAKATTE
DEPARTMENT OF PEDODONTICS AND PREVENTIVE DENTISTRY

Year	Patient treated			Nucleus Hospital		School programs			Rural Oral health care (No. of patient treated)	Total Number of patient treated at
							No. of children who received			
	New Patient	Old Patient	Total Patient	Children with Clefts	Special children	No. of Camps	Oral Health Education & Screening	Treatment		
2002	1453	3492	4945	80	32	16	2695	1231		7640
2003	1110	4348	5458	40	36	13	2010	884		7468
2004	1241	3641	4882	151	43	14	1995	570		6877
2005	1919	7189	9108	67	17	9	1695	715	1503	12306
2006	1672	7486	9158	70	17	9	1695	715	1403	12256
2007	1454	5545	6999	79	25	21	8242	2230	1767	17008
2008	2132	3666	5798	108	4	6	2352	405	1222	9372
2009	2727	6639	9366	250	9	11	3086	264	1508	13960
2010	2928	5103	8031	209	12	24	6026	2349	1395	15425
2011	2817	4583	7400	178	16	19	3226	1122	1564	12190
2012	4510	9133	13643	128	59	57	6124	3291	2635	2240

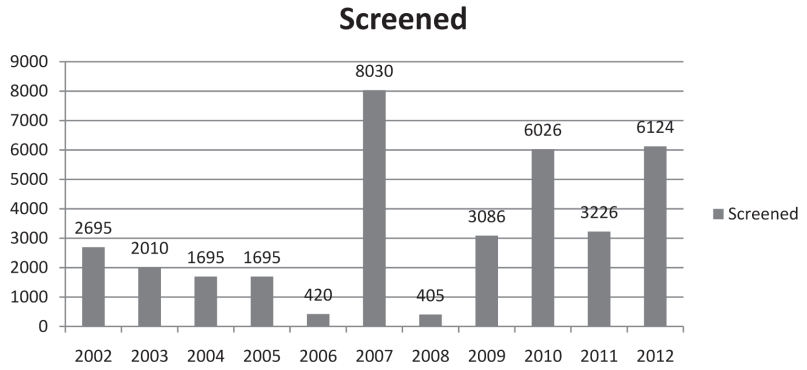
N-BRITE (Nitte Bright Teeth) - A School Programme to Bring Bright Smiles on the Faces of Children.

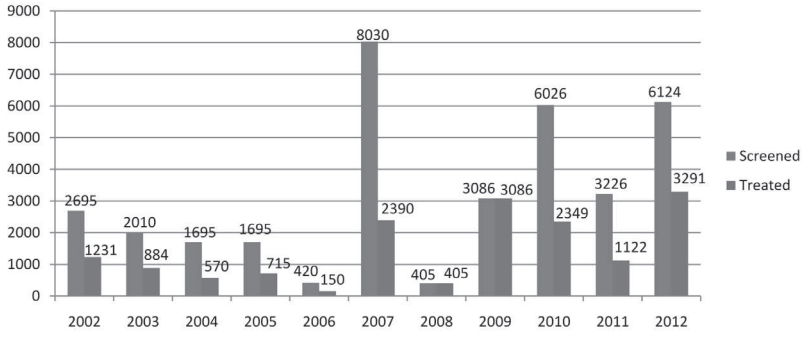
N-BRITE Smiles - A School oral and Dento-facial awareness and treatment Programme (2002 onwards). This programme also included exhibiting newspaper cuttings on latest developments related to medicine and dentistry for educating school children at schools.

This program consists of creating awareness and providing treatment at the schools around satellite centres of the institution and also schools around the nucleus hospital.

Rural schools consisting of 500 to 1,000 children in each school are adopted. To create awareness and provide comprehensive dental care at their door step free of cost, each school is facilitated by installation of dental chair and unit.

Screening camps followed by oral health awareness talks





Screening followed by treatment

FIT AND INSERTION OF COMPLETE DENTURE PROSTHESIS IN ONE DAY (SINGLE DAY) AT CAMP SITE

Unique community treatment programme for the elderly. First of its kind in the world

It was in 1990, author Prof. Dr. N. Sridhar Shetty, envisioned and formulated a concept of treatment- fit and insertion of complete denture in a single day (one day) at rural and semi-urban camp sites-for the benefit of elderly population who are handicapped by total loss of teeth (upper and lower jaw). In this concept, the edentulous patients are diagnosed and treated with a new pair of artificial complete denture prosthesis at a treatment camp site in a single day. The patients who are thus treated and provided with complete denture prosthesis are followed up after 48 hours by revisiting the camp site. The treatment plan for providing complete denture prosthesis has two phases - a Clinical phase and a Laboratory phase. This treatment procedure usually takes approximately 7 clinical appointments, (an hour's duration each) in a regular dental clinics or hospital. For the elderly completely edentulous patients who are mentally, physically, and economically compromised, these visits are tedious, tiresome and time consuming and also may involve long distance travelling and cost. This was the first time in the world that such a treatment camp was formulated and conducted.

The first single day denture camp was conducted at a small rural town, Uppinangadi (about 60kms from Mangalore City in Karnataka, India) and made history by successfully completing fit and insertion of 54 complete upper and lower denture prosthesis at the camp site. Since then (1990), 43 such camps have been conducted at the rural and semi-urban camp sites benefitting 1962 elderly patients who could not Avail, Access and Afford the treatment. *These camps are conducted even outside the state in places like Coimbatore in Tamil Nadu, Tirupathi in Andhra Pradesh and Payannur in Kerala.* The patients who are provided with the complete dentures are followed up after 48 hours by revisiting the camp site, or with the coperation and association with nearby practicing dental surgeon and later at the Institution's Rural Satellite Centers or at our Institution.

In 1994 most memorable comanding record was created at largest single day denture camp conducted at semi-urban town Chintamani (100 km from Bangalore 450 km from from Mangalore) where 175 elderly patients were treated in a single day.

The faculty, post graduate students, Interns, undergraduate students and para clinical personnel have participated and worked earnestly to undertake this project. The Nitte Education Trust supported the cause both financially and morally. All work has been carried out without sacrificing the prescribed teaching hours by the Apex bodies within the Institution.

By associating and interacting with the local village leaders, local voluntary organizations, clubs, gramapanchayaths, charitable institutions and NGO's like Rotary, Lions etc., are taken into confidence for dissemination of information and broader participation .

These agencies are requested to facilitate and to provide arrangements for clinical and laboratory work places, furnished with chairs, tables and benches. This work place is requested to be prepared in advance to simulate a clinical environment at the camp site –a clinical work station for practice in a hygienic and sterile environment(cleanliness with disinfectants).Provision for water, electricity/generator, toilets and provisions for waste disposal are also arranged for.

These volunteers are requested to publicize the program and pool the edentulous patients at the proposed treatment centers like the village centers or schools or community hall etc. They are also requested to arrange and provide food and water free of cost for these patients, since they have to be present from 8 AM to 6 PM continuously at the camp site.

Since each patient has to be attended continuously for treatment (approximately 9 hours) the number of patients is restricted to a maximum of 100 to proportionate the manpower, equipment etc. The treatment is carried out following the protocols for sterilization asepsis, infection control and hospital waste management (disposal of sharps and non-sharps, biodegradable material etc. is carried out by collecting all materials in a disposable bags and carrying them back to the institution for incineration)

Team for single day denture camps:

The team consists of teaching faculty, postgraduate students, interns, nurses, clinical assistants, dental mechanics, equipment maintenance engineers and social workers.

Keeping in mind the importance of cross-infection control, acceptable clinical steps and laboratory steps, planning sessions are conducted by the team members before the day of treatment camp for co-ordination and speedy clinical and laboratory work. It is planned to fit and insert complete dentures prosthesis before 6.00 p.m. so as to help the patients to reach their home before sunset.

Dental Chairs:

As the number of patients would vary from 50 to 100, the regular dental chairs and units is not feasible to transport. Hence a concept of simple portable dental chair for clinical work station was introduced. The patients are made to recline over the cushioned boards (size of 1 feet width and 4 feet height) placed against the back rest of any ordinary chair which would enable the patient's head and neck to be stabilized, being pre-requisite for any dental treatment. Each station is provided with a small table to facilitate placement of required instruments and materials. The material cost and expenses for medicine etc., are borne by the institution/charitable organizations.

Cross infection control implements and practice

1. Disposable gloves
2. Disposable masks
3. Doctor's coat(below knee length and long sleeved)
4. Provisions of wash basin at work stations containing dettol/betadine solutions for necessary hand disinfection.
5. Individual spittoons (buckets) containing small quantity of dettol solution.
6. Separate bags for collecting waste (cotton, gauze, material etc.)
7. All the instruments including linen (for patient's drape and wrapping of instruments), gauze, and cotton are carried in individual sterilized kits.

Emergency Drugs: Oxygen cylinders and emergency drugs (cardiac and allergic etc conditions)

Material: Modeling wax and boxing wax, acrylic teeth sets (300 assorted in size, shape, color), dental plaster, dental stone, impression materials – alginate, low - fusing modeling plastic (green stick compound), zinc oxide eugenol impression paste, Auto polymerized acrylic resin (tray material), heat polymerized acrylic resin, separating media, pumice, whitening powder, polishing cakes, cellophane for trial packing, articulating papers. Closed porcelain jars with caps for mixing heat cure acrylic resin powder and liquid.

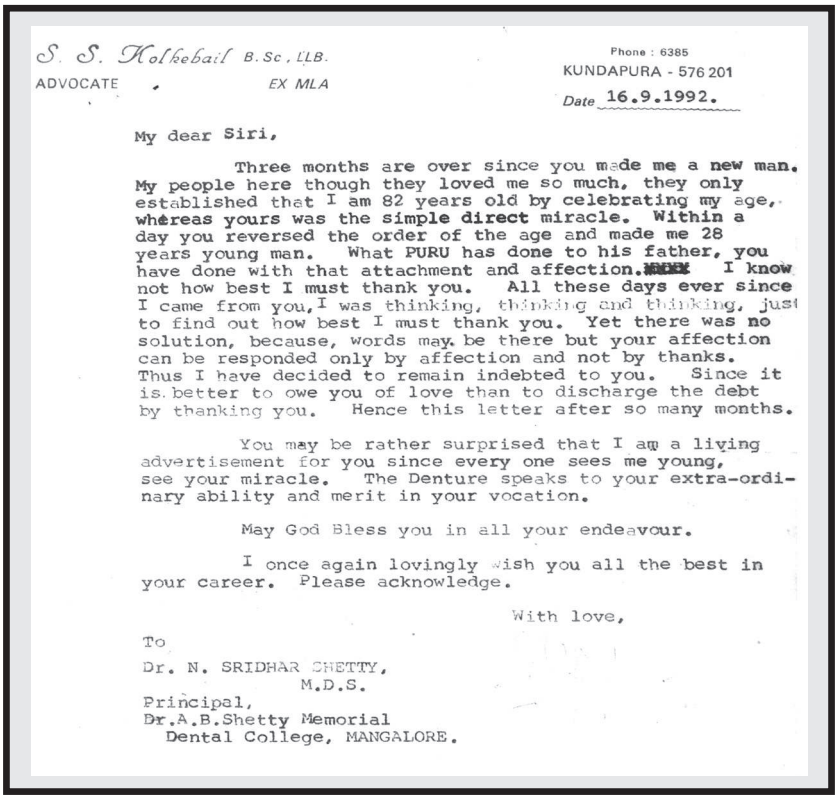
Equipment and instruments:

Model trimmers (5), gas lines with cylinders (LPG gas bottles) for 25 stations with bunsen burners, spirit lamps (100), laboratory micro-motors(Heavy duty) with straight hand pieces (30) , polishing and trimming lathes (5), bench presses (5), are transported from the institution or arranged by the organizers of the camp.

For polymerising of the acrylic dentures, the requisite of large acrylizer cannot be transported and utilized for want of electricity. Three large containers (capacity to hold 100 pairs of flasks) are requested to be arranged by the organizers of

the camp. Cooking gas or firewood is used to warm and boil the water. One of the vessel is of low height (12 to 16 inches) and is utilized for dewaxing. This will facilitate retrieval of artificial teeth in the event of loss from the invested flask. (for easy visualization and access).The second vessel is used for initial curing where in temperature is controlled(by withdrawing the firewood/ gas) to be within 65-70 degree centigrade (to be checked with finger/thermometer) for half an hour. The third vessel is for boiling the water where the flasked denture is cured at 100 degree centigrade for one hour.

Set of instruments for each work station (both clinical and laboratory): mouth mirrors, tweezers, stock trays for making impression (edentulous), indelible pencils, wax knife, plaster knife, wax spatula, lecron carvers, rubber bowls, flasks and clamps, flask carriers for dewaxing, plastic or wooden hammers, frit saws (small carpenter's saw), brushes and wooden spatulas, long metal hooks to attach to the flasks to remove from curing, metal number tags for identification of the individual pairs of flasks during curing, lathe stone, polishing cones, wool buffs, wheel brushes, sandpaper rolls, trimming stones (acrylic trimmings burs, assorted shaped stones, fissure burs, sand paper mandrels.



S. S. Kolhebail B.Sc, LLB.
ADVOCATE EX MLA

Phone : 6385
KUNDAPURA - 576 201
Date 16.9.1992.

My dear Siri,

Three months are over since you made me a new man. My people here though they loved me so much, they only established that I am 82 years old by celebrating my age, whereas yours was the simple direct miracle. Within a day you reversed the order of the age and made me 28 years young man. What PURU has done to his father, you have done with that attachment and affection. I know not how best I must thank you. All these days ever since I came from you, I was thinking, thinking and thinking, just to find out how best I must thank you. Yet there was no solution, because, words may be there but your affection can be responded only by affection and not by thanks. Thus I have decided to remain indebted to you. Since it is better to owe you of love than to discharge the debt by thanking you. Hence this letter after so many months.

You may be rather surprised that I am a living advertisement for you since every one sees me young, see your miracle. The Denture speaks to your extra-ordinary ability and merit in your vocation.

May God Bless you in all your endeavour.

I once again lovingly wish you all the best in your career. Please acknowledge.

With love,

To
Dr. N. SRIDHAR SHETTY,
M.D.S.
Principal,
Dr.A.B.Shetty Memorial
Dental College, MANGALORE.

Procedure:

Each patient is treated by one postgraduate student/doctor who is assisted by one intern or a senior student. For the purpose efficiency, consistency and speedy work, a unit is formulated (5 patients, 5 students, 1 faculty, 1 technician). Each unit will be treating patients. Each unit is facilitated with 5 doctors, 1 dental technician, supervised, monitored and guided by a teaching faculty. Such 20 units will be a requirement for 100 patients. One technician is designated per unit.

8:00 AM - Patients are seated at clinical work station and examined to reassess the overall status of the alvelor edentulous ridges and associated structures. Patient's attitude, adaptability and expectations are assessed. The patient is informed in advance about the treatment plan, duration, initial difficulties in learning while wearing dentures, the expected retention, stability, esthetics and comforts.

8:10 AM – 8:30AM: Primary Impression – the stock tray is selected and modified to fit approximately maxillary and mandibular alveolar ridges (denture bearing area) in patient's mouth for making the primary impressions. The doctor / postgraduate student with assistance of the intern/student will make the maxillary primary impression by using alginate impression material. The impression is carried to the lab immediately by intern to pour the cast and to prepare the special tray quickly. In the mean time, the mandibular alginate primary impression is made and carried by the doctor to pour the cast for preparation of special tray.

8:30AM – 9:00AM - The student/intern and technician will pour the cast and separate the impression from the set cast , custom made acrylic resin tray is fabricated with spacer and stops and made ready for making the final impression. The maxillary custom tray will be prepared first (8:45 AM) followed by the preparation of mandibular custom tray. Thus prepared trays are placed in warm water for 10 minutes before being checked in the patient's mouth.

9:00 AM – 9:20 AM - The maxillary custom tray which is made ready is immediately carried to the work station, checked in the patient's mouth and adjusted for its fit and extension .The peripheral molding is carried out by low fusing modeling plastic (green stick compound) and impression is made by using zinc oxide eugenol paste and sent (with intern) for pouring in dental stone to make the master cast and to prepare temporary denture base carrying occlusion rims (Technician and Intern). (9:20-10:00AM)

9:20 AM – 9-40 AM - The mandibular custom tray which is made ready is quickly taken to the clinical work station and checked in the patient's mouth and adjusted for its fit and extension. The peripheral molding is carried out by low fusing modeling plastic (green stick compound) and impression is made by using zinc oxide eugenol impession paste and sent for pouring in dental stone

and to make the master cast and to prepare temporary denture base carrying occlusion rims (technician and intern). (9:40-10:20AM)

10:00 A.M – Maxillary Occlusal Rims are adjusted in the patient' s mouth for facial fullness, anterior and posterior occlusal plane, lip lines (high and low),smile line, midline and canine lines. (referal lines)

10:20A.M – 10:30A.M – Mandibular Occlusal Rims are inserted in the patient's mouth to occlude and adjusted for establishment of vertical clearance of occlusion (VD). The patient is trained to capture centric relation and relevant canine line, midline are marked. The maxillary and mandibular occlusal rims occluded in centric relation are sealed and centric relation is registered. Selection of teeth is done for arrangement of artificial teeth.

10:30 A.M – 11:00 A.M – Mounting of sealed occlusal rims on free plane mean value articulator. (non-adjustable)

11:00 A.M – 12 Noon – Arrangement of teeth, waxing and contouring

12 Noon – 12.20P.M – Try in of waxed up denture

12:20 P.M – 1:20 P.M – Flasking(processed by compression molding) of maxillary and mandibular waxed up dentures. (Along with assistance of intern and technician)

1:20 P.M – 1:30 P.M – Working lunch

1:30 P.M – 1:45 P.M – Dewaxing of maxillary and mandibular flasked waxed up denture and application of separating media.

1:45 P.M –2:15P.M. – Mixing of acrylic resin powder and liquid, packing, trial packing and keeping under the bench press.

2:15 PM – 2:25 P.M. – Bench curing of clamped flasks. The flasks are hooked together and designated number is tagged. (metal)

2:25P.M – 2:55P.M – Curing in warm water for half an hour (60 – 70 degree centigrade to avoid porosity)

2:55P.M – 3:55P.M – Clamped flasks are transferred to the vessel containing boiling water and kept for one hour for heat curing.

3:55 P.M.– 4:15 P.M – Bench cooling

4:15 – 5:00P.M – Deflasking, trimming and polishing of acrylized denture

5:00 PM – 5:30 PM – Fit, insertion and post insertion instructions.

Patients are recalled to the camp site after 48 hours for review by team of four doctors.

The faculty and students continue to practice providing complete denture prosthesis in a day at the institution also for those who are travelling from long distance.

Unique Community Programme For The Elderly - World Record
Single Day Complete Denture Fit-In Programmes Conducted

Year	PLACE	NO.OF COMPLETE DENTURE
1990	Uppinangadi	54
1991	Kumta	50
	Somwarpet	45
1993	Bhatkal	50
	Madikeri	50
1994	Madikeri	43
	Chintamani	175
1995	Madikeri	110
1996	Byndoor	37
	Madikeri	33
	Bailoor	36
	Thirupathi	118
1997	Nitte	25
	Deralakatte	35
	Sringeri	30
	Deralakatte	15
1998	Koteshwara	37
	Marnakatte	39
	Thripathi	72
2000	Kosteshwara	33
	Somwarapet	33
2001	Mandya	50
	Sringeri	45
	Koteshwara	45

Year	PLACE	NO.OF COMPLETE DENTURE
2002	Koteshwara	40
	Payyanur	50
	Moodabidri	30
	Coimbatore	40
2003	Koteshwara	50
	Coimbatore	53
2004	Koteshwara	43
	Yellapur	6
	Marnakatte	55
2005	Moodabidri	45
2006	Nitte	40
2007	Coimbatoor	50
2008	Nitte	25
2009	Kannur	45
	Dabekatte	26
2010	Coimbatoor	45
	Koteshwara	45
2011	Dabekatte	25
2012	Nitte	34
		Total: 1962

SINGLE DAY DENTURE AT RURAL CAMPS

GLIMPSES OF SPECIALIZED STATE-OF-THE-ART TREATMENT AT NUCLEUS HOSPITAL

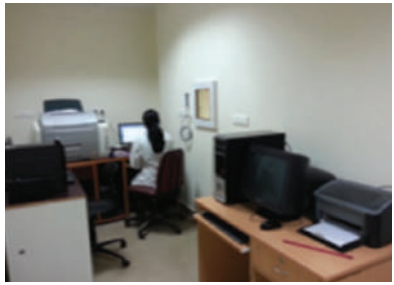
Free of cost

Estimated cost of various treatment ranging between Rs. 30,000 to Rs. 800,000 per patient borne by the Institution

MAXILLO FACIAL MEDICINE AND RADIOLOGY

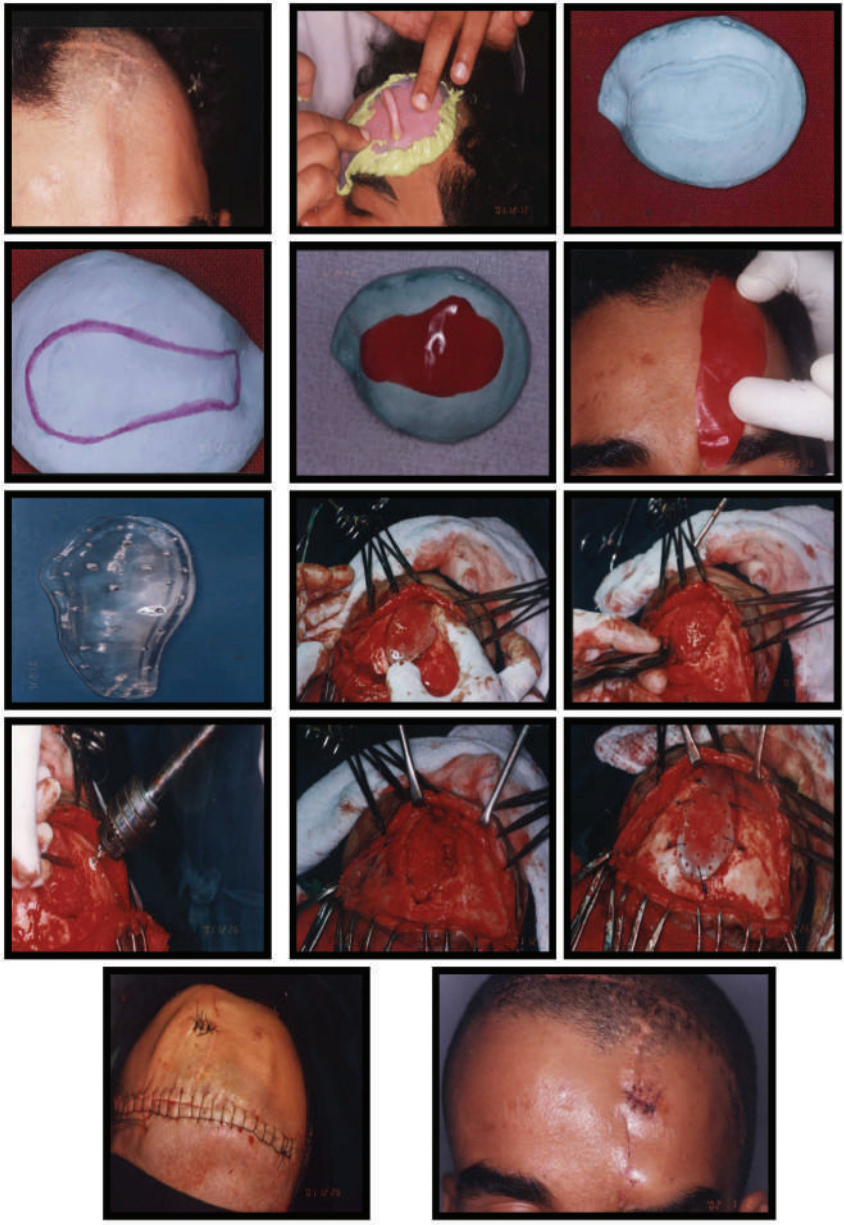
CONVENTIONAL INTRA ORAL RADIOGRAPHY

DIGITAL INTRA ORAL RADIOGRAPHY

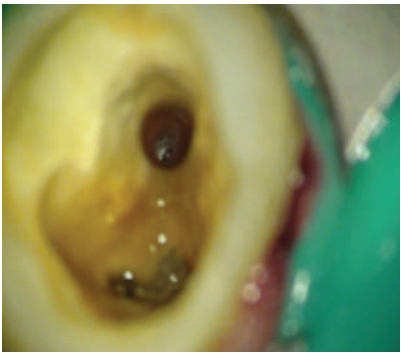


DIGITAL PANAROMIC RADIOGRAPHY

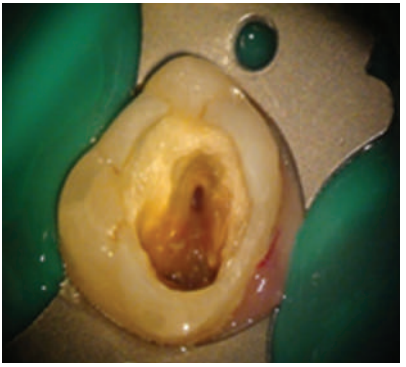
CRANIAL IMPLANTS



Full mouth rehabilitation and Esthetic restoration of mutilated Dentition



Microscopic Endodontics



Microscope Loupes

Laser assisted frenectomy, gingivectomy

Advanced periodontal surgery and therapy

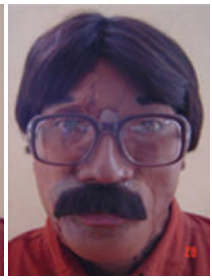
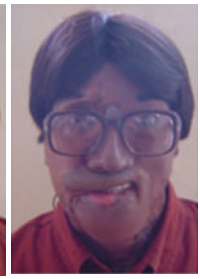






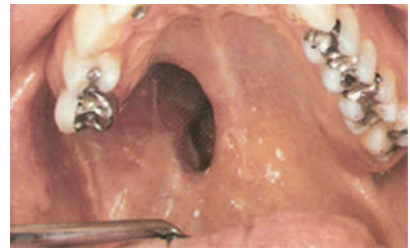




Maxillofacial Prosthetic replacement
Victim of gas explosion
Poor labourer treated after 1 ½ years of surgical management

Maxillofacial Prosthesis



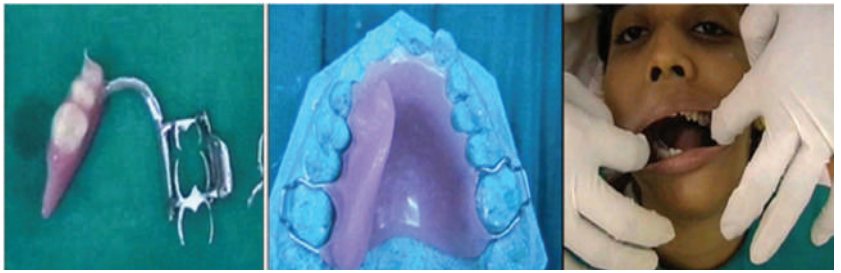
Swing Lock Partial used to retain an Obturator Prosthesis

Treatment of Hemimandibulectomy

Pre - Treatment **Post - Treatment**

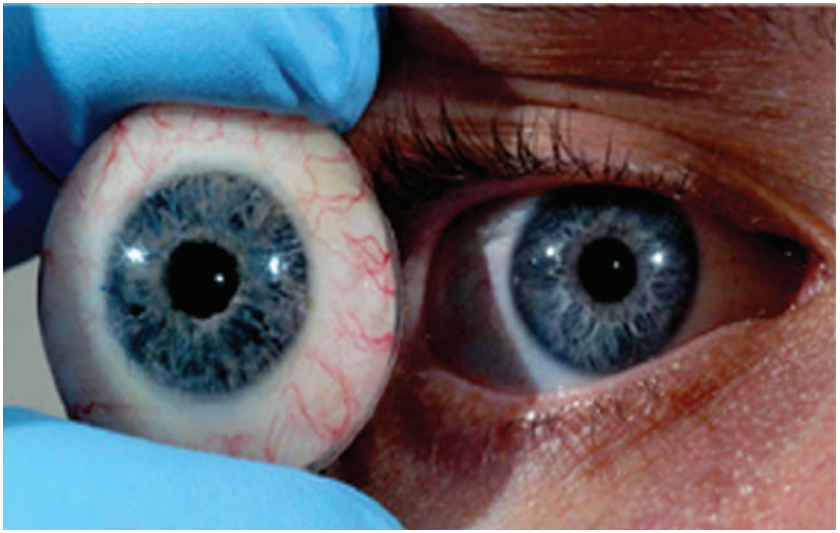
Maxillofacial Prosthesis

Mandibular Guidance Prosthesis in Prosthetic Rehabilitation of Acquired Mandibular Defect -



Prosthesis For Velopharyngeal Defect

The artificial eye is made of acrylic (polymethylmethacrylate)



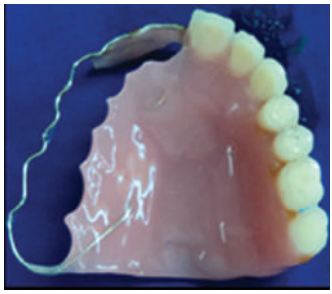
Eye prosthesis (porcelain)

Maxillofacial restoration for a patient with orbital exenteration and partial maxillectomy.

Partial Maxillectomy

Exenterated Orbit

Estimating Pupil Position



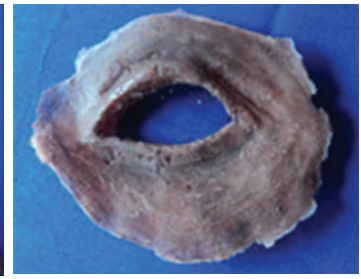
Maxillary Prosthesis

Acrylic Eye

Eye Lid Wax Pattern Try-In

Patient with Maxillary and Eye Prosthesis

Processed Eyelid Attached to Spectacles



Processed Eyelid

Gnathological Concept - Fullmouth Rehabilitation

Centric and eccentric relations

Full Mouth Occlusal Rehabilitaion

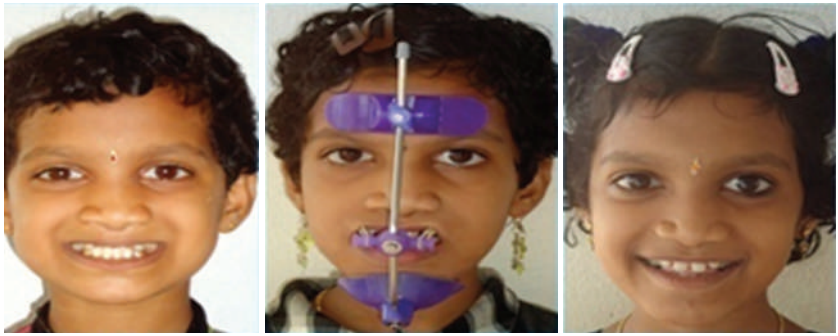
CLEFT LIP AND PALATE

CLEFT LIP AND PALATE

THE ANTE-FACE-FROM CONCEPT TO REALITY

CARNIO FACIAL ANOMALIES

FACIAL ANOMALIES
SURGICAL ORTHODONTICS – OPEN BITE CORRECTION CORTICOTOMY



ALTERNATIVE RAPID MAXILLARY EXPANSION WITH FACE MASK

FACIAL ANOMALIES
SURGICAL ORTHODONTICS – DEEP BITE CORRECTION CORTICOTOMY

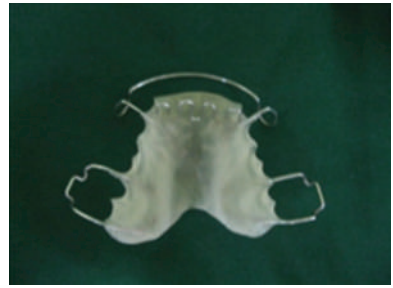




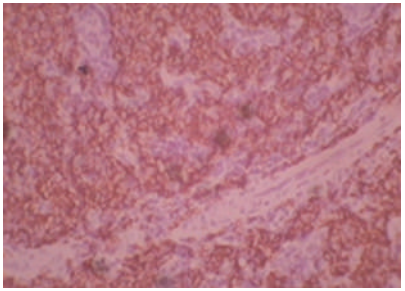


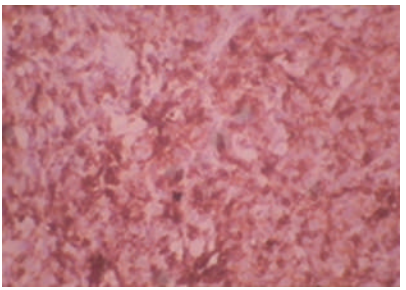

Pre-treatment **Post-treatment**

MYOFUNCTIONAL TREATMENT FOR CORRECTION OF OPEN BITE FRANKEL APPLIANCES

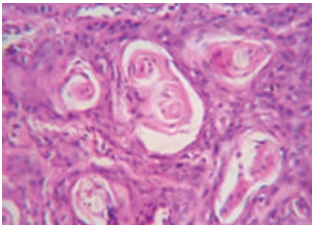


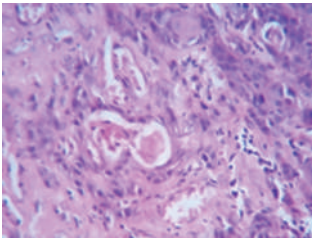
UTILIZING ADVANCED DIAGNOSTIC AIDS – IMMUNOHISTOCHEMISTRY FOR THE DIAGNOSIS OF LYMPHOMA

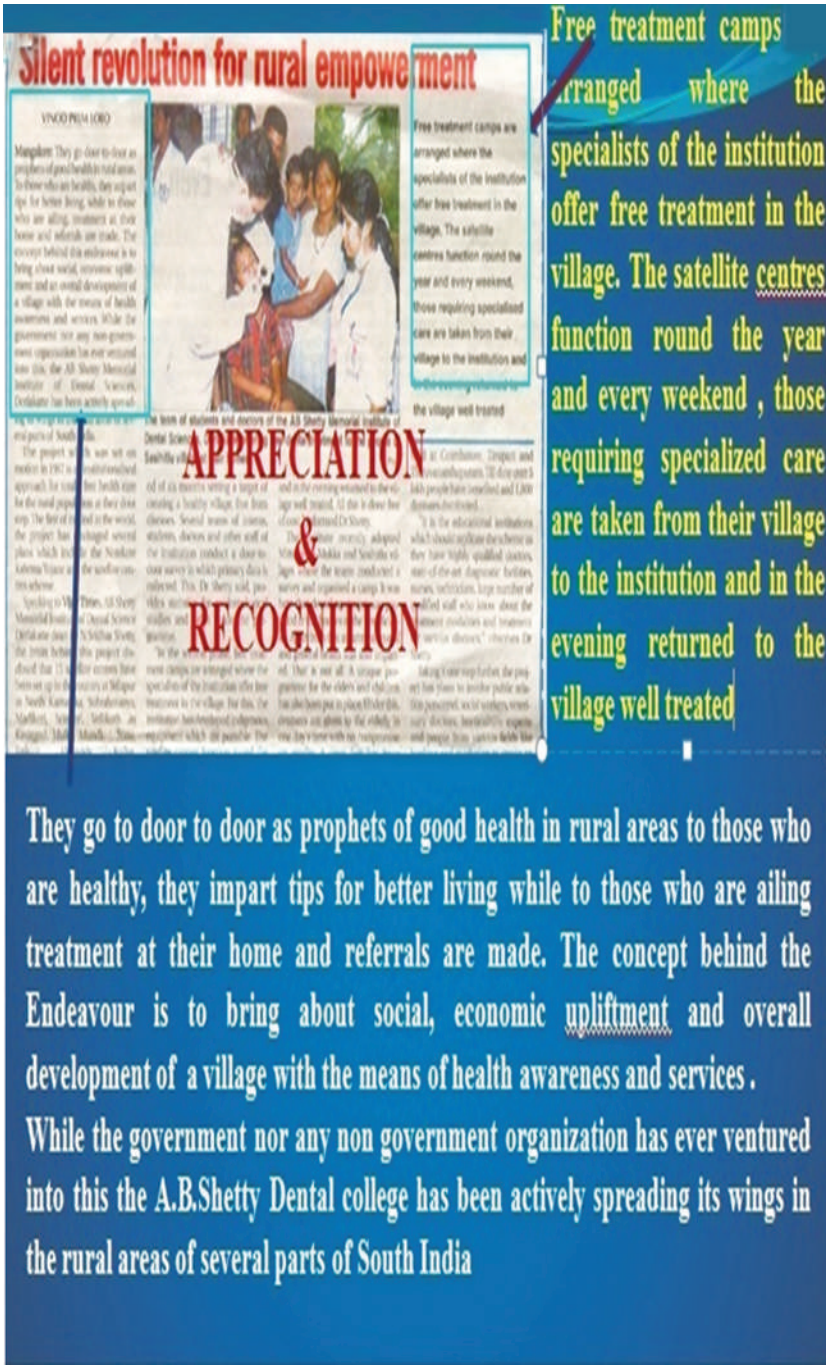




ORAL LESIONS DIAGNOSED AFTER BIOPSY AS ORAL CANCER






Silent revolution for rural empowerment
VINOD PAIA LOBO
Free treatment camps are arranged where the specialists of the institution offer free treatment in the village. The satellite centres function round the year and every weekend, those requiring specialised care are taken from their village to the institution and
the village well treated
APPRECIATION
&
RECOGNITION
Free treatment camps arranged where the specialists of the institution offer free treatment in the village. The satellite centres function round the year and every weekend , those requiring specialized care are taken from their village to the institution and in the evening returned to the village well treated
They go to door to door as prophets of good health in rural areas to those who are healthy, they impart tips for better living while to those who are ailing treatment at their home and referrals are made. The concept behind the Endeavour is to bring about social, economic upliftment and overall development of a village with the means of health awareness and services .
While the government nor any non government organization has ever ventured into this the A.B.Shetty Dental college has been actively spreading its wings in the rural areas of several parts of South India

Advanced periodontal treatment provided - Benefitted Free of Cost at Nucleus Hospitals (ABSMIDS) 1987-2012

TOTAL COST : RS. 153,090,000

Technique		No. of patients treated	*Cost as of July 2012 (in Rupees)*
Non-Surgical Therapy	Local Drug Delivery	1107	1,107,000
	Antimicrobial subgingival irrigation	1227	6613,500
	Splinting	4746	4,746,000
Conventional surgical technique	Gingivectomy/Gingivoplasty	5133	12,832,500
	Flap Surgery	5446	65,352,000
	Regenerative Osseous Surgery	2948	7,370,000
	Esthetic periodontal surgeries	1603	34,158,000
Electrosurgical technique	-do-	1603	11,221,000
Laser surgical technique	-do-	1046	15,690,000
Grand total		**28949**	**153,090,000**

Advanced Conservative & Endodontics- Benefitted Free of Cost at Nucleus Hospitals (ABSMIDS) 1987-2012

TOTAL COST: 64,609,500

Advance clinical procedures	Number of patients	Cost as of July 2012 (in rupees)
Tooth surface and Intra coranal tooth restoration	169,200	44,185,500
Endodontic therapy and surgical endodontic	19,536	20,424,000
Grand total	**188,736**	**64,609,500**

Advanced Prosthodontics Restoration Benefitted Free of Cost at Nucleus Hospitals (ABSMIDS) 1987-2012

TOTAL COST: RS. 848,455,000

Treatment	Number of Patients Treated	Cost as of July 2012 (in Rupees)
Anatomic complete Dentures Prosthesis	2010	40,200,000
Conventional complete Dentures Prosthesis	26808	268,080,000
Removable partial denture prosthesis	520	104,000,000
Interim partial denture prosthesis(acrylic tissue supported)	55000	110,000,000
Fixed partial dentures 3 units and multiple units	5680	127,800,000
Coronal restoration (Crowns inlays laminates)	460	2,300,000
Full mouth Occlusal rehabilitation	310	43,400,000
Maxillofacial & body prosthesis	995	79,600,000
Esthetic and smile design	255	19,125,000
Temporomandibular joint Non surgical management	225	2,250,000
Osseo integrated (Implant) supported prosthesis	1034	51,700,000
Grand Total	**93,297**	**848,455,000**

Advanced Diagnostic Aids Benefitted Free of Cost Nucleus Hospitals (ABSMIDS) 1987-2012

Clinical Oral Pathology and Microbiology

TOTAL COST: RS. 2,220,250.00

Sl .no	Procedure Done	No. of cases	Cost (Rs.)
1	Biopsy for Diagnosis	5859	14,64,750.00
2	Cytology	6675	6,67,500.00
3	Frozen Section	56	28,000.00
4	Advanced Histopathology using IHC	50	60,000.00
Total Cost (Rs.)			**2,220,250.00**

Advanced Oral and Maxillofacial Surgical Procedures for the Patient free of cost at Nucleus Hospital (ABSMIDS) 1987-2012

TOTAL COST: 374,980,600

Type of Case	Number of Cases	Total Cost (as on July 2012) In Indian Rupees
Head and Neck Cancer	254	12,700,000
Cleft Lip and Palate	5576	278,800,000
Orthognathic Surgery	656	32,800,000
Trauma	635	19,050,000
Minor Oral Surgery & Exodontias	257,931	31,630,600
Grand Total	**265,052**	**374,980,600**

Advanced Orthodontic Benefitted Free of Cost at Nucleus Hospitals (ABSMIDS) 1987-2012

TOTAL COST: Rs.215,796,000

Treatment	Number of Patients Treated	Cost as of July 2012 (in Rupees)
Growth Modulation	920	6,486,000
Removable	2013	6,039,000
Beggs	5520	44,160,000
PEA	6072	109,296,000
Lingual	47	2,115,000
Ceramic	35	1,050,000
Cranio facial including cleft	1800	46,650,000
Total	**16,407**	**215,796,000**

Advanced Radiographic Diagnostics Benefitted Free of Cost at Nucleus Hospitals (ABSMIDS) 1987-2012

TOTAL COST: Rs. 51,940,000

Diagnostic Radiography	Total Patients	Cost as of July 2012 (in rupees)
Extra Oral films	98825	19,765,000
OPG	109,175	21, 835,000
TMJ Films	1,250	250,000
TSS	500	100,000
RVG	12,500	500,000
DIGITAL RADIOGRAPHY	21,250	3,400,000
Total	**243,500**	**51,940,000**

Advanced Pedodontics & Preventive Dentistry Treatment Benefitted Free of Cost at Nucleus Hospitals (ABSMIDS) 1987-2012

TOTAL COST RS. 94,471,288

Treatment	Total Patients	Cost as of July 2012 (in Rupees)
Advanced preventive Pedodontics	5,853,312	29,266,560
Pedodontic aesthetic& other restorations including crowns	9,210,528	21,438,864
Pediatric surgery and Exodontia	3,645,268	4,557,440
Pediatric Endodontics& pulp therapy	3,670,040	36,700,400
Preventive & interceptive Pedodontics(Myofunctional)	1,850,980	17,051,588
Pediatric Cleft management	4,967	2,483,300
Hospital Pediatric dentistry	2,206	4,412,000
Total	**24,237,301**	**94,471,288**

Advanced Treatment procedures provided free of cost to treat diseases of Stomatognathic system at Nucleus Hospital (ABSMIDS) 1987-2012

Total Cost of Treatment as of July 2012 in Indian Rupees is Rs. 1,805,562,638

Treatment	Total Patients	Cost as of July 2012 (in Rupees)
Advanced Periodontal Treatment	28949	153,090,000
Advanced Prosthdontic Treatment	93,297	848,455,000
Advanced Conservative Treatment	188,736	64,609,500
Advanced Oral & Maxillofacial Surgery treatment	265,052	374,980,600
Advanced Pedodontics treatment	24,237,301	94,471,288
Advanced Orthodontics treatment	16,407	215,796,000
Advanced Diagnostic Aids – Oral Pathology and Clinical Microbiology	12640	2,220,250
Advanced diagnostic radiography		51,940,000
Grand Total	**24,829,742**	**1,805,562,638**

A delegate from Australia registered for the Nitte Rural Psychiatry Center-Australian Wollongong University as well as the Australian Psychiatric Association Conference was treated for the restoration of 6 All Ceramic (LAVA) Crowns free of cost. This treatment would cost in India a minimum of Rs. 60,000.

The delegate was embarrassed since the treatment was given free of cost as the treatment would have cost back home in Australia a minimum of 15,000 Australian Dollars (Rs. 840,000)!!!!

Proposal for rural medical and dental institutions to materialize this vision and concept.

The vision and concept -"Institutionalized approach – Total health care for rural and semi urban population at the door step – Free of cost" has been practiced and tested at A B Shetty Memorial Institute of Dental Sciences, Mangalore. It encompasses delivery of advanced treatment solution for the diseases of Stomatognathic system by skilled manpower, creating an Awareness, making Avail and facilitating Accessibility, extending services of prevention, treatment and after care free of cost. The results are positive, and encouraging. Under this project, at rural satellite centers, treatment camps and at nucleus hospital (Teaching Institution) patients are treated for diseases of Stomtognathic system, free of cost, at the total cost of Rs 4.255 billion as of July 2012. Over 1.5 million rural poor patients have been treated until July 2006 and by 2012 more than 2 million have received treatment worth Rs. 2.5 Billion, free of cost. Advanced treatment procedures are also provided free of cost at nucleus hospital **A B Shetty Memorial Institute of Dental Sciences,** at the cost of Rs. 1,755 Billion from 1987-2012 to treat diseases of the Stomatognathic system, a prime organ of the human body which formulates the vital chain by its function, that is basis of human existence.

This should be eye opener for all of us that vast rural population of the country could be reached by the skilled specialists, faculty, students and para-dental personnel of the colleges to provide total health care of Stomatognathic system. This is a "Silent Revolution for Rural Empowerment For Equality in Health Care."

The medical teaching institution can easily adopt this vision and concept. Qualified manpower, instruments, infrastructure and advanced therapeutic facilities are made Accessible, Available and Affordable to the people residing in rural areas along with creating health Awareness and prevention by establishing nucleus hospital, satellite hospitals and implementing suggestions of training of clinical students, made in the vision of "Institutionalized approach – Total health care for rural and semi urban population at the door step – free of cost" along with economic progression and achieve equality in health care.

I fondly hope and also confident that my ambitious vision and concept will culminate into a reality: ***"Health for all with a quality life".***

The Medical Council of India currently (2011) fully recognizes 345 colleges, with a total capacity to train 40,525 Indian medical students. As per suggestion in the vision and concept proposed in this book, it is necessary to bring amendments to the rules and regulations of establishing medical colleges and implement these amendments to the existing recognized medical colleges. These colleges should train clinical students by outreaching to the rural population. They should establish, to have network of hospitals with the state-of-art infrastructure for diagnosis, surgical, medical and therapeutic facilities (super-specialty hospital) as well as the establishment of five 100 bedded hospitals (at rural areas)as satellite centers around a nucleus hospital with the radius of 200 km with all the infrastructure required for emergency care, diagnosis, clinical care or treatment,

and aftercare related to all specialties under the various sub specialties under medical, surgical, obstetrics and gynecology etc. The establishment of a 50 bedded hospital (at rural area) for emergency care and medical care around these five100 bedded hospitals with a command area of 50 kilometers should be implemented. There shall be a continuous interaction between the satellite centers as well as the nucleus hospital for the management of patients and clinical teaching of students. The faculty members in each speciality are to be divided into smaller groups to facilitate clinical teaching and patient management are posted at satellite hospitals.The skilled manpower primarily will include faculty (teachers), assigned in proportion to the students, who will be posted at these hospitals. These networks of hospitals will provide free of cost, total health care with holistic approach to a minimum of 50,000 families with Accessibility and Availability for health care for poor and needy rural populations after creating Awareness. The other required infrastructure with basic amenities and facilities for the people who are working in the hospital should be established around this hospital. Social, cultural, and sports facilities also should be established. This manpower should reach out to the rural population with the objective of creating health consciousness and Awareness, prevention, treatment and aftercare at their doorsteps free of cost. The students are to be further trained in groups and batches in all the subjects in relevant areas via an effective teaching protocol while adhering to the highest standards. They should also spend their learning and teaching hours in and around clusters of rural centers equipped with modern facilities instead of working under just one roof within a campus with metropolitan comforts. With the present technology, students can be taught via the E-learning process and get exposed to all faculty members for lectures, clinical discussions and interactions.

Diseases of every organ or system are managed and treated organ wise and specialist wise with the support of diagnostic and therapeutic facilities. The ability to understand the findings and arrive at a diagnosis, provide the treatment and predict the prognosis of those suffering requires skilled specialist personnel.

On an average, a specialist can manage ten patients a day. For 250 days in an year he would be providing benefits of diagnosis, treatment and after care for 2500 patients.

By considering an average 20% of present Indian population of 1.241 billion would be requiring services of 100,000 thousands specialists.1.118 billion Rural and semi-urban alone would be requiring services of 95,000 thousand specialists. 857 million Rural alone billion would be requiring services of 70,000 thousand specialists.

As Prof. Dr. MS Valiathan, National Professor puts it "Associations and societies of these specialists can take task of training yet to be specialized medical graduates for initial management of patients to reduce work load.

Advances in diagnosis, radio-diagnostics, genetics, molecular biology and pharmacological therapeutics have given excellent support to the task of combating diseases and extending health care. Newer and more advanced surgical techniques, backed by biotechnology have made recovery easier and better.

The manpower with specialized knowledge and higher skills, requisite infrastructure supported with diagnostic and therapeutic facilities will have access to recent advances and is to be updated on an ongoing basis. The research activities are to be upgraded in accordance with the needs of the future.

Excerpt from Prof. Dr. N. Sridhar Shetty Endowment Lecture 2013, Delivered by Prof. Dr. MS Valiathan, National Professor.

"The advanced equipments, instruments and materials used in the medical field are all manufactured outside the country. They are of exorbitant costs making diagnosis and treatment expensive. In United States, research made in the Pentagon is taken into the industries and technologies are developed for use in medical practice for imaging etc. The research done at Indian defense research are yet to reach the smaller industries to facilitate the medical field to develop the recent equipments, instruments materials and imaging facilities."

"Our contribution in medical instrumentation is less than 1% on International assessment. We should make drastic improvements in this area so that we are at par with advanced country and treatment cost will be affordable to all. Our medical fraternity in co-ordination with engineering and other departments can achieve large advancements in this area. The young graduates from all fraternities should come forward with new ideas in this line"

"Educational Institutions and industries should work hand-in-hand to come out of the vicious cycle. We see many medical departments not even aware of their adjacent other departments who produces equipments and facilities for them. Inter departmental co-operation need to be enhanced with all possible interventions"

Instrumentation researched and produced in India can always be exported to other developing countries. India has some of the best ingredients in manufacturing instrumentation items because of our best advantage of best manpower. Anything and everything that is involved with medical related research and technology will not only be beneficial to the people of India but will also have an impact on all that is planned by India for the purpose of the world."

A mandatory requisite of a minimum of 50,000 families or more (100 admission college and proportionately increasing for more admission) in rural areas should be registered with the institution. The institution should be assigned to take up the responsibility of the rural population at 200 Km. radius area around the institution to improve the health status of the rural and semi urban population for total health. This neglected and under privileged population has to be provided health Awareness and prevention facilities and also provided with facilitating Accessibility, Availability and Affordability for the people living in these areas, at free of cost to bring equality of health care.

Locomotive awareness and treatment healthcare

Indain railways have excellent network. they are passing from big cities through towns and many villages. Teaching institution can collaborate with indian railways to procure bogies and develop the facility for diagnosis and therapeutics and also to have and arrangement with railway authorities for the parking of these bogies at village stations(the villages in the command area of the institution). the faculty and students from each satellite center can travel in these bogies to extend the awareness prevention therapeutics and aftercare. they can also organise from these stations street plays and house to house visits for awareness as well as for epidemiological studies on target diseases and identifying people who require treatment and transportation facilities for hospitalisation at nucleus or satellite hospitals at free of cost .

They can also depending upon economic viability of the institution in collaboration with NGOs, organizations plan flying hospitals to reach the rural areas(a very popular service rendered by affluent societies for ophthalmic, cleft treatment)

By bringing amendments to the rules and regulations of statute requirements, to the existing 345 recognized medical colleges, a medical teaching institution on this concept and vision would have to cover 3.5 million rural and semi-urban populations out of 1.188 billion population of India. . If only considering the rural population, 2.49 million rural population would be covered out of 857 million rural population of India.

By bringing amendments to the rules and regulations of statute requirements to the existing 251 existing dental colleges, a dental teaching institution on this concept and vision would have to cover 4.8 million population of the rural and semi urban area population out of 1.188 billion population of India. If only considering the rural population, 3.42 million rural population would be covered out of 857 million rural population of India.

Additional medical teaching institution to be established with this concept and vision, by bringing amendments to the rules and regulations of statute

requirements, one each in 647 districts at a rural area would cover 1.82 million population of the rural and semi urban area population out of 1.188 billion. If only considering the rural population,1.33 million rural population would be covered out of 857 million rural population of India.

Likewise additional dental teaching institution to be established with this concept and vision, by bringing amendments to the rules and regulations of statute requirements each in 647 districts at rural area would cover 1.82 million population of the rural and semi urban area population out of 1.188 billion. If only considering the rural population, 1.33 million rural population would be covered out of 857 million rural population of India.

On this concept and vision of 992(together 345+647=992) medical colleges established, each medical college would cover 1.20 million population of the rural and semi urban area population out of 1.188 billion and 863,912 rural population would be covered out of 857 million rural population of India.

On this concept and vision if 898(251+647)dental colleges were established, each dental college would cover 1.323 million population of the rural and semi urban area population out of 1.188 billion and 954,343 rural population would be covered out of 857 million rural population of India.

Bringing amendments to regulation to existing medical and dental colleges and also starting of new colleges as first phase under this concept, in the rural area at each district

No. of colleges	Population (rural and semi urban)	Expected coverage of rural and semi-urban population	Population (only rural)	Expected coverage of rural population
345Existing Medical colleges (new amendment)	1.188 billion	3.5 million covered by each of 345 medical colleges	857 million	2.49 million covered by each of 345 medical colleges
647 rural medical colleges (new amendment)	1.188 billion	1.82 million covered by each of 647 colleges	857 million	1.33 million covered by each of 647 medical colleges
345+647=992 medical colleges (new amendment)	1.188 billion	1.20 million covered by each of 992 colleges	857 million	863,912 covered by each of 992 medical colleges
251 Existing Dental colleges (new amendment)	1.188 billion	4.8 million covered by each of 251 dental colleges	857 million	3.42 million covered by each of 251 dental colleges
647 rural dental colleges (new amendment)	1.188 billion	1.82 million covered by each of 647 dental colleges	857 million	1.33 million covered by each of 647 dental colleges
251+647=898 dental colleges (new amendment)	1.188 billion	1.323 million covered by each of 992 dental colleges	857 million	954,343 covered by 992 dental colleges

The regulatory responsibility of 50,000 families in the rural areas i.e., 50,000 multiplied by average of 6 members in the family - 300,000 village populations would be provided total health care free of cost. As first phase plan if 647 rural Medical and 647 rural dental colleges one in each districts are established

in the rural area under the vision and concept for rural empowerment for Equality in Health Care would have to cover 195 million rural population of India out of the present rural population 857 million population. Likewise 992 medical colleges (combining345+647=992) medical colleges would cover 298 million rural population of India out of the present rural population 857 million population free of cost. Likewise 898(combining 251+647=898) dental colleges would cover only270 million rural population of India out of the present rural population 857 million populations free of cost.

The regulatory responsibility of 50,000 families in the rural areas i.e., 50,000 multiplied by average of 6 members in the family - 300,000 village populations would be provided total health care free of cost.

No. of Medical & Dental Colleges	Population 50,000 families facilitated total health care free of cost	The population share which is covered for total health care amongst 847 million rural population
647 rural colleges	300,000(estimated)	200 million
992(345+647) medical colleges	300,000(estimated)	298 million
898(251+647) dental colleges	300,000(estimated)	270 million

Number of health science teaching institutions should be established phase wise year by year or once in 2 years to cover the present 847 million rural population of the country

Additional regulatory responsibility of 50,000 families at semi urban area around satellite hospitals shall also be included as command area for providing health care with economic progression for equality of health care.

Thus, under this vision and concept, a medical teaching institution established would facilitate the present rural and semi urban population of 1.188 billion for a total health care along with oral and dental health care by participation of specialists in health sciences. For this more teaching institutions has to be programmed year wise.

Department of public health at medical teaching institution and dental teaching institution shall adopt in principle to change the curriculum to suite the vision and concept and expand the department staff requirements, administration, teaching and clinical activities.

Curriculum should be modified by increasing the number of study hours, and upgrading the department of public health (for both medical and dental colleges)

to introduce the curriculum and adopted as per the concept of “Institutionalized approach – Total health care for rural and semi urban population at the door step – free of cost” along with economic progression for equality in health care.

Dental colleges: Upgrading the department of public health dentistry

1. Implement and introduce the modified curriculum to adopt the concept “Institutionalized approach – Total health care for rural and semi urban population at the door step- Free of cost”
2. Increase the number of study hours
3. Teaching – curriculum / clinical /practical / field work should be changed to start from I BDS.
4. The department shall have following infrastructure for teaching, training, field work and preventive treatment and after care facilities:
    a. Integrated clinic at the institution with minimum 20 dental chairs and units.
    b. Minimum of 5 rural satellite centers with 2 or more dental units and chairs to cover 50,000 identified and designated families in the rural area.
    c. Portable dental chair, units and equipments, autoclaves and autoclaved instruments etc for awareness (street plays and house-to-house visits) and treatment camps

The independent dental colleges as per statute requirement should establish a 100 bed hospital and should also have medical faculty for the teaching of the medical subjects. This hospital can be planned to upgrade into a tertiary hospital to provide tertiary health care to the populations in regulatory responsibility of 50,000 families for their health care.

Administration and teaching

The interns shall be posted for minimum of 3 months in the integrated clinic to provide comprehensive treatment and also 3 months posting by rotation at satellite centers.

The post graduates shall also be posted from each specialty to work along with interns at rural satellite centers.

A faculty by rotation from each speciality will be at integrated clinic and satellite centers for teaching, guiding and supervision of interns as well as post-graduates.

The Dean of the institution shall supervise, guide and instruct to co-ordinate the faculty of other specialties to participate in the program.

Upgrading the faculty strength of the department of Public Health Dentistry to suite with the newer curriculum.

Present faculty as per DCI - For 100 admission

1. Professor - 1
2. Reader - 1
3. Lecturer - 4

The Department faculty strength should be increased to adopt new curriculum and teaching

1. Professor and H.O.D. 1
2. Adl. Professor/ Assoc. Professor 1
3. Reader 2
4. Lecturer(with MDS Qualification) 4
5. Tutor (to be posted one in each satellite centre) 5
6. Biostatistician 1
7. Qualified Health/Social Worker 2
8. Nurses 2
9. Hygienist 2
10. Technician 2
11. Support staff (receptionist, medical record keeper, store clerk and attenders, driver and conductor for mobile van)
12. Honorary or part time faculty (veterinary surgeon, horticulturist/ agriculturist (graduates), public health engineer and public relation officer (MBA graduates).

HEALTH is an important contributory factor towards creation of a healthy society. Considerable importance should be focused towards conducting health programs. Improved health status and healthy mind of the masses will generate wealth for the nation with higher productivity and all round prosperity. Creation of a specialized cadre of health professionals with holistic approach to serve the rural masses, with dedication and commitment; shall ensure health for all, with economic progression in addition to providing them much needed specialists health care facilities, to bring equality in health care. Beneficiaries of this concept will be the under-privileged classes of the society in rural and semi urban areas. Free treatment and aftercare at their doorsteps – a long cherished desire and need for this class of the society will ultimately get fulfilled.

FOCUS ON VITAL ASPECTS OF THIS VISION AND CONCEPT

A SILENT REVOLUTION FOR RURAL EMPOWERMENT FOR EQUALITY IN HEALTH CARE FACILITATING AWARENESS, ACCESSIBILITY, AVAILABILITY AND AFFORDABILITY.

What is needed is the careful consideration of all the vital aspects of this vision and concept, focusing especially the following:

1. Envision a health care delivery system with intelligent networking amongst government and private health care institutions to ensure total health care for rural and semi urban population at their doorsteps, free of cost. This will fulfill the of dream of equality in health care along with economic progression for those who lack Awareness and do not have Accessibility, Availability and Affordibility to health care services.
2. It will create vibrant health care infrastructure facilities in rural and semi urban areas, which is almost absent today.
3. This vision will help in creation of specialized cadre of health professionals to serve the masses, particularly poor and underprivileged with the dedication and commitment; which will ensure health for all as enshrined in our constitution.
4. This also envisages economic progression of the rural masses in addition to providing them the much needed health care facilities.
5. This will also bring in overall economic transformation in terms of generating direct and indirect additional employment and income, including creation of various infrastructures like transportation, communication, etc.
6. Beneficiaries of the project will be the under-privileged classes of the society in rural and semi urban areas; free treatment and aftercare at their doorsteps – a long cherished desire and need for this class of the society will ultimately get fulfilled.
7. Improved health status and healthy mind of the masses will generate wealth for the nation, with higher productivity and all -round prosperity.
8. This will ensure transparency, professionalism and 100% delivery of the benefits to the needy.
9. Specialists in health care need to reach and serve village/semi urban population of 1.188 billion, for equality in health care. To fulfill this vision and concept,we need to establish rural medical and dental teaching institutions for training graduates and postgraduates.
10. Additional financial burden on the central/state governments will be negligible when compared to the benefits accruing to the society
11. The provision should be made by the act of the parliament to establish autonomous health science teaching institutions with supervision, guidelines and control from the central government wherein educational qualification can be granted by the institution.

Silent Revolution for Rural Empowerment
Vision and Concept
For Equality in Health Care

The vision and concept of "Institutionalized approach – Total health care for rural and semi urban population at the door step – Free of Cost" will create specialized cadre of health professionals to serve the masses, particularly poor and underprivileged with the dedication and commitment for equality in health care. This will ensure health for all as enshrined in our constitution, for rural and semi urban population along with economic progression and will generate healthy population for the nation with all-round prosperity. This will ensure transparency, professionalism and 100% delivery of the benefits to the needy. This will fulfill the of dream of a health care delivery system with intelligent networking amongst government and private health care institutions to ensure total health care for rural and semi urban population at their doorsteps, free of cost.

Rural population is empowered with equality of health care, with economic progression, and shall lead a quality life.

"Health is Wealth: Health for a Quality Life"

Author Prof. Dr. N. Sridhar Shetty
Director, Center for Advanced Dentofacial and Stomatognathic Sciences, Nitte University
Founder Dean, A.B. Shetty Memorial Institute of Dental Sciences

Silent Revolution for Rural Empowerment

Vision and Concept For Equality in Health Care

The vision and concept of "Institutionalized approach – Total Health care for rural and semi urban population at the door step – Free of Cost" will create specialized cadre of health professionals to serve the masses, particularly poor and underprivileged with the dedication and commitment for equality in health care. This will ensure health for all as enshrined in our constitution, for rural and semi urban population along with economic progression and will generate healthy population for the nation with all-round prosperity.

"Prepare your Students for a Career, not just Another Class"