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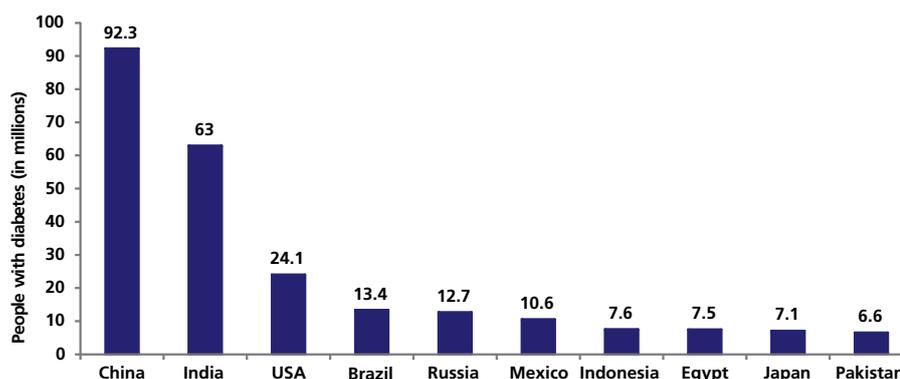
Changing Diabetes® Barometer Updates in India

- Practical Diabetology (PD) course in Kerala
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 - Screening and awareness camps organized
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 - Achievements, key activities and success story
 - Introduction of "Journal of Social Health and Diabetes" (JOSH –diabetes)

Growing Burden of Diabetes in the World^{1,2}

- New estimates released by the International Diabetes Federation (IDF) on World Diabetes Day 2012 show that 371 million people have diabetes and half of people with diabetes are undiagnosed.
- If all the people with diabetes formed a country, it would be the third most populous country after China and India.
- Saudi Arabia, Japan, Micronesia, Chile, Pakistan, Senegal, Myanmar, and other countries add to the evidence of the growing burden of diabetes.
- 4 out of 5 people with diabetes live in low- and middle-income countries.
- 4.8 million people died and 471 billion USD were spent due to diabetes in 2012.
- Half of people who die from diabetes are under the age of 60.

Top ten countries/territories for people with diabetes (20-79 years)¹



Diabetes in India: Updates

- Diabetes in India, at a glance^{1,2} (2012)
 - Prevalence of diabetes (%):9.01
 - Number of adults (20-79 years) with diabetes (thousands): 63,014
 - Number of adults (20-79 years) with undiagnosed diabetes (thousands): 32,184
 - Number of deaths due to diabetes: 1,013,057
 - Mean healthcare expenditures per person with diabetes (INR): 3,701.41[#]
- The Changing Diabetes® Barometer (CDB) initiative is a response to this urgent and pressing need for concerted action against diabetes.
- As part of this long-standing commitment, CDB paved the way by providing a tremendous opportunity to raise awareness, educate, empower and inspire people with diabetes.
- So far, CDB in India has been implemented in the states of Bihar (Screened 2,01,287 people[^]), Gujarat (Screened 41,202 people[^]), Goa (Screened 35,320 people[^]), Andhra Pradesh (Screened 10,074 people[^]) and the union territory of Puducherry (to cover all population > 30 years with the support of the government).
- CDB is striving to create more opportunities to help people live a better life with diabetes.

*=10th March, 2013; #The conversion was done from \$ to INR. Conversion factor for dollars to rupees: US \$1 = INR 54.4485



Session at Practical Diabetology course



Participant at Practical Diabetology course

NEEF Organised 28th Batch on "Practical Diabetology" to Expand Diabetes Education in India

STENO Diabetes Centre is a world leading institution for diabetes care and prevention. It delivers education in team-based diabetes management and provides knowledge of the latest findings and research in all areas of diabetes. Four courses in Practical Diabetology are held every year, out of which two are run in Denmark and two are run abroad. These courses are conducted in collaboration of Novo Nordisk. From 2003 to 2013, 28 trainings have been conducted by STENO and 696 doctors have participated in these trainings in India. This year the training was organised in two batches; one at Le Meridien Resort & other at Convention Centre, Maradu in Cochin and a total of 106 participants were benefited from this workshop. It was conducted with the aim of reducing dependency on doctors for the management of diabetes. It could be accomplished by delegating tasks to nurses, dieticians, podiatrists, diabetes educators or lab technicians. This was intended to facilitate better utilization of existing resources in the healthcare system. This necessary change can be achieved if doctors and paramedics work as a team on different aspects of diabetes management in a holistic manner.

Activities Included in Practical Diabetology Course

The Practical Diabetology course is a comprehensive course that deals with all practical aspects of management of diabetes. The course included the following activities:

- Lectures on prevention and treatment of diabetes and its complications: Opportunity to share best practices by providing information of current treatment modalities in one's clinic
- Learning by doing: Better understanding of diabetes by living a life of a person with diabetes for three days
- Workshop on improvement of diabetes clinics and providing organized treatment for diabetes
- Communication workshop: Highlight professional communication with people with diabetes, illustrate the fundamental dynamics of communication and motivate healthcare professionals (HCP) to develop their own communication skills
- Quality in diabetes management workshop: Familiarize with essential elements and identify potential barriers for quality assurance in diabetes clinics

CDB in Bihar

Phase I: Screening and awareness

- As on 8th March, 2013, a total of 2,01,287 people have been screened for diabetes. Screening was performed at all PHCs in pilot districts, public institutions, schools/colleges, villages, wards, shopping complexes etc.
- The prevalence of diabetes in the urban region was twice that of the rural region (16.4% vs. 7.4%).
- In Bihar the overall rate of new detections was 2.6% while average HbA1c was ~ 8.27%.
- CDB has reached more than 30 lakh people to create diabetes awareness.
- More than 100 news articles, 4 lakh booklets and diet charts were distributed.
- Messages on world diabetes day reached out to more than 2 lakh people.

Phase II: Education & capacity building

- About 27 doctors and 24 paramedics were trained on STENO practical diabetology course, 2 doctors were trained on STENO advanced diabetes update and more than 200 doctors were trained through CMEs.
- Diabetes education posters were put up at all PHCs/medical colleges in the pilot districts.
- Establishment of diabetes speciality clinic was suggested and supported in the pilot districts



Screening Camp

List of Doctors from Bihar who Successfully Completed STENO Practical Diabetology Training

Name of Doctor	Institution
Dr Akhilanand Singh	New Gardiner Road Hospital, Patna
Dr Dipak Tandan	Sub-Divisional Hospital, Danapur
Dr Ashok Kumar Singh	Sub-Divisional Hospital, Danapur
Dr P B Mishra	Saddar Hospital, Bhagalpur
Dr Chandrasekher Prasad Choudhury	Sub-Divisional Hospital, Rajgir

Speciality Clinics

As a part of CDB in Bihar, NNEF has initiated focused diabetes care on pilot basis by introducing diabetes speciality clinics. Under this initiative, diabetes treatment infrastructure was strengthened by focused training and capacity building. A total of 6 diabetes speciality clinics were introduced in the 3 pilot districts having the following provisions:

- Diabetes speciality clinics will function one day in a week.
- 3 CDB executives will be present on these days at the clinic to provide services to people with diabetes.
- IEC material will be provided to the people with diabetes
- Effective follow-up and monitoring of people with diabetes will be done, Novo Nordisk Education Foundation is complimenting government initiative on diabetes management with diabetes clinics.
- NNEF is providing infrastructure support in the form of patient education & support material
- Patient education and support material included posters, booklets, videos, diet charts, visual aid binder, podiatry kits, and registry software
- NNEF is also providing training for the doctors and paramedics and data management.

Insights from CDB

Analysing data collected as a part of the CDB screening has yielded important insights into the status of diabetes in the population of Bihar. The worrisome situation of diabetes progression in the state can be seen in these results, but also scope for creating strategies to counter these trends is seen.

- CDB screening helped in improving the rate of diagnosis of diabetes by 22%.
- Average HbA1c was increasing progressively (~8.36) due to lack of adequate treatment.
- Progressive increase in HbA1c is known to be a major reason for diabetes complications.
- 1% reduction in HbA1c can substantially reduce the risk of complications and cost of diabetes treatment.
- Accessibility to medication for people with diabetes remained a major challenge.
- There is a significant gap in the current insulin treatment and desired treatment by insulin, especially for people with high risk of diabetes (HbA1c > 9%) in Bihar.
- Only 3% of people with diabetes are on insulin treatment among the screened population, while in India this was estimated to be ~ 15% (Indian market estimate).
- 42% people with high risk of diabetes among the screened population were without medication to ameliorate disease progression.
- Optimal medication options, such as insulin treatment, should be made available to all the people with diabetes.

"CDB revealed real insight on diabetes in Bihar"

Message from Shri. Sanjay Kumar, IAS



Mr. Sanjay Kumar, IAS
Secretary, Health-cum-
Executive Director,
State Health Society,
Bihar

"Changing Diabetes® Barometer" a project, jointly run by State Health Society, Bihar and Novo Nordisk Education Foundation since 20th April, 2011, has truly revealed some real insight to the status of diabetes in Bihar. Through this project we have screened almost more than 2 lakh adults above the age of 20 in a span of 1 year 10 months in the 3 pilot districts Patna, Bhagalpur and Nalanda. It has been revealed that 11.6% of the adult population above the age of 20 are living with diabetes and the prevalence is almost double in the urban population than that of rural which can be attributed to urban culture, sedentary lifestyle, unhealthy food habits and stress of modern life.

It has also revealed that almost 15% of the screened people are in a pre-diabetic stage, which means 25 to 30% of them will become diabetic within a span of next 3-5 years. These are people who can take necessary proactive measures in controlling their diet and do some exercise to prevent/delay the onset of diabetes. People with known history of diabetes are also not taking proper care to maintain their blood sugar under control range and merely 40% of them are having some kind of acceptable control. Through this project we have been able to communicate to them that uncontrolled diabetes can lead to serious consequences and hence they need to take care of their blood glucose profile. We have been able to reach to about 30 lakh people and have created some amount of awareness about diabetes and the reason why one should be careful in managing good glycaemic control. Till now we have been able to create 6 Diabetes centres of excellence in the 3 pilot districts of Patna, Bhagalpur and Nalanda. We are mobilising the people with diabetes to these centres where the doctors are appropriately trained by Novo Nordisk Education Foundation to treat them properly. The data from these centres show positive impact on the glycaemic profile of people with diabetes, those who are following the advice of the doctors in these centres. There is a need to scale this programme to all the districts of the state in a phased manner. In association with a dedicated organisation like Novo Nordisk Education Foundation, we will be able to build good infrastructure and strengthen the capacity of our doctors and paramedics in the Diabetes centre of excellence for providing proper treatment to people with diabetes and thereby contribute in preventing/reducing the dreaded complications of diabetes. Our partnership with NNEF in improving the state of diabetes care will definitely be beneficial for the people with diabetes in Bihar.


Sanjay Kumar, IAS
Secretary, Health-cum-
Executive Director
State Health Society, Bihar

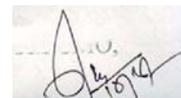
"A noble service for low socio-economic strata"

Message from Dr. Manoj Kumar Sinha



Dr. M K Sinha,
Medical Officer In charge
New Gardiner Road Hospital,
Patna

The Novo Nordisk diabetes awareness campaigns were done every Wednesday in our hospital, New Gardiner Road, Patna. It is indeed a noble service for the population living in the lower socio-economic strata of the population in the Patna district. This campaign is very helpful to people with diabetes in our clinic and has extended services like diabetes counselling, providing patient education literature, diet charts and free insulin pens. NNEF has also helped build capacity by training doctors and paramedics on regular basis.



"CDB campaigns helped in increasing awareness about diabetes"

Message from Dr. Vinod Prasad



Dr. Vinod Prasad
Medical Superintendent of
Jawaharlal Nehru Medical
College and Hospital,
Bhagalpur

The NNEF diabetes awareness campaigns were done every Thursday in our hospital. It is really a noble service in our district. The campaigns helped in increasing awareness about the disease among people with diabetes. People with diabetes were educated about diet control and medication techniques that help in reducing the complications related to diabetes. NNEF is committed to tackling this growing epidemic disease using a phase-wise approach and by increasing accessibility to medication for all classes of people.



"NNEF is fighting against the growing diabetes epidemic"

Message from Ms. Neerja Joshua



Ms. Neerja Joshua,
Dietitian, New
Gardiner Hospital

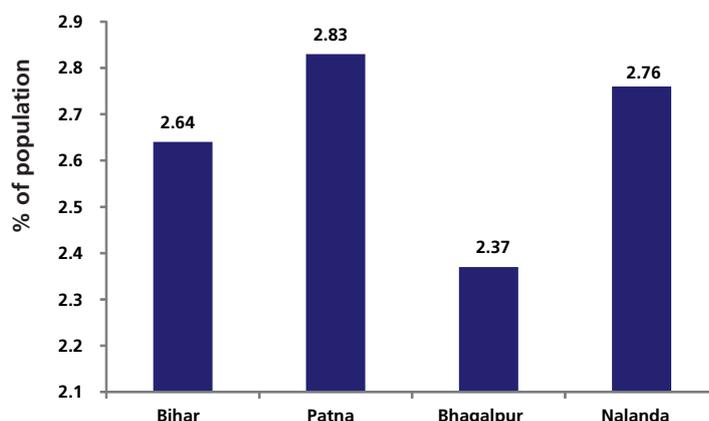
NNEF is a successful global health care organization in the field of diabetic care. In New Gardiner Road Hospital, Patna, Bihar, it is known for its noble work such as early screening, early detection, education and treatment for the common people. It is spreading awareness about the disease and reducing complications related to diabetes. It is providing educational materials, and information about precautionary measures, medication techniques, different diet charts, and colour coding food stuffs to help people with diabetes clearly understand the importance of diet control. It has also given us the opportunity (medical & paramedical professionals) to attend the training workshops on diabetes. The training sessions on "Practical diabetology" at Kochi held from 6th to 8th March, 2013 was extremely useful.

NNEF is fighting against the growing epidemic through mass awareness campaigns and quality medication, in real terms. I wish Novo Nordisk all the best for their future work and sincerely hope that it will grow from strength to strength, so that it continues to serve the people, and help people with diabetes have a healthy and better life.

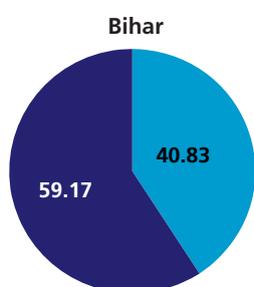
Key findings from CDB program in Bihar

- Every 1 in 5 individuals in urban region (19.21%) and every 1 in 12 in rural region (7.48%) was detected with diabetes
- Every 1 in 6 males (16.85%) and 1 in 10 females (9.49%) were detected with diabetes
- Approximately every 1 in 4 (28.0%) individuals among high income group were detected with diabetes
- Every 1 in 4 individuals with age > 60 years (25%), 1 in 5 with high BMI (20%) and every 1 in 4 with hypertension (25%) were detected with diabetes

Newly Diagnosed Diabetes Detection Rate



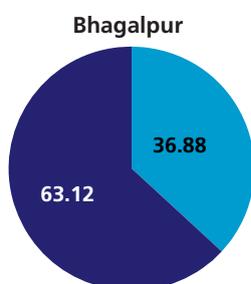
Highest incidence of newly diagnosed diabetes cases was in Patna.



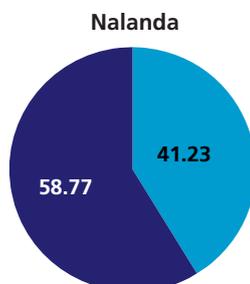
Diabetes detection rate: 11.67%
Pre-diabetes detection rate: 15.02%

Results of Diabetes Screening in Bihar (% of People)

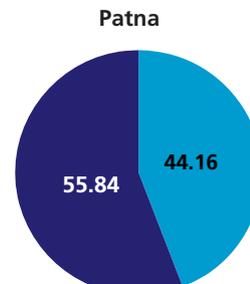
Of the three districts in Bihar, the uncontrolled diabetes detection rate was highest in Bhagalpur (63.12%) while the controlled diabetes detection rate was highest in Patna (44.16%).



Diabetes detection rate: 11.84%
Pre-diabetes detection rate: 14.29%



Diabetes detection rate: 8.75%
Pre-diabetes detection rate: 19.31%



Diabetes detection rate: 12.89%
Pre-diabetes detection rate: 13.72%

■ Controlled diabetes ■ Uncontrolled diabetes

Disclaimer: The data analysed is based on the total number of people who attended the diabetes speciality clinic/ screening camp organised by NNEF in collaboration with Health & Family Welfare Department and thus known diabetes patients could be comparatively more. Therefore the results may not reflect the actual prevalence rate of diabetes in the particular area.

CDB in Gujarat

NNEF signed a MoU with the government of Gujarat in June, 2012, for prevention and control of diabetes. The Changing Diabetes® Barometer (CDB) project was launched in Dahod district on 24th & 25th January, 2013 by the collaborative efforts of NNEF and government of Gujarat. At this occasion, a mega diabetes exhibition was inaugurated by the district President, Shri. Shankarbhai Amaliyar, and District Development Officer, Dr. Vikrant Pandey, I.A.S. at Prasang Party Plot, Dahod. Screening teams of Dahod and Ahmedabad districts have rendered exceptional service to all the participants. Dieticians also offered individual as well as group counselling to people with diabetes on various aspects of diet & exercise in controlling diabetes. On this occasion a mobile screening van was also flagged off by the dignitaries dedicated for the people of Dahod. Shri. P.K.Taneja (Health Commissioner), Dr. (Mrs) D.B.Rathod (CDHO), Dr. Vikrant Pandey I.A.S (DDO), Shri Rakesh Shankar I.A.S (District Collector), Dr. Sunil Avashia (Additional Director MS), Dr. B.P.Itare (RDD) & Dr. R.M. Patel (CDMO) and entire exhibition team, extended their continuous guidance and support for the success of the mega exhibition on diabetes in this part of tribal Gujarat.

CDB Launch in Dahod District

CDB project was launched on 24th January, 2013, at Dahod district of Gujarat with the following objectives:

- To strengthen the government system for better management of diabetes
- To set up PHC centric speciality diabetic clinics for people with diabetes
- To upgrade skills of PHC doctors to manage non-communicable diseases
- To show significant improvements in outcomes through timely intervention
- Each person with diabetes was tracked by the MO through a "Diabetes Treatment Card & ID Card". The PHC could establish itself as a centre of excellence for diabetes management through timely intervention.



Diabetes booklet being inaugurated by key dignitaries at Dahod exhibition.

List of Doctors from Gujarat who Successfully Completed STENO Practical Diabetology Training

Name of Doctor	Designation	Institution
Dr. Kartikeya G Parmar	Assistant Professor of Medicine	B.J. Medical College & Civil Hospital, Ahmedabad
Dr. Himanshu M Rana	Associate Professor & HoD of Medicine	GMERS Medical College, Gotri, Baroda
Dr. Sunil J Panjwani	Associate. Professor & HoD of Medicine	Sir T Hospital & Govt Medical College, Bhavnagar
Dr. Vinod R Vahoniya	Consultant Physician	District Hospital, Dahod
Dr. Pankaj J Akholkar	Associate Professor & HoD of Medicine	GMERS Medical College, Sola, Ahmedabad
Dr. Ajay C Tanna	Associate Professor & HoD of Medicine	M.P. Shah Medical College, Jamnagar
Dr. Minal H Shastri	Associate Professor & HoD of Medicine	SSG Medical College, Baroda
Dr. Arti Trivedi	Additional Professor of Medicine	P.D.U Medical College ,Rajkot

Diabetes Mega Exhibition at Dahod

The exhibition was held from 24th to 25th January at Dahod district in collaboration with NNEF. Following are the key highlights of exhibition:

- Registration (data), which would form the basis of diabetes registry of Dahod
- Biometrics, screening for random blood sugar (RBS) and blood pressure (BP)
- Diet gallery in which 3 live food zones were displayed viz. red, yellow & green
- Individual and group counselling to people with diabetes on diet & exercise/Doctor consultations
- Diabetes educators addressing various queries of the people with diabetes
- Diabetic retinopathy screening by ophthalmologists
- Foot check up by diabetic foot surgeon
- HBA1c screening for all people with diabetes (reported back to people with diabetes through SMS & hard copy on the following day)
- Education gallery highlighting various aspects of diabetes on display, which was widely visited by most of the participants
- Display of special foot wear for people with diabetes as recommended by podiatrist
- About 1884 people were screened for diabetes and hypertension. The incidence of diabetes at the exhibition was as high as 37% (698) and around 60% (379) people with diabetes were found to have uncontrolled diabetes. About 3% (69) were newly detected with diabetes and 11% (221) were detected with pre-diabetes. Incidence of hypertension was 46% (883) and pre-hypertensions was 29% (555).

“CDB will reduce diabetes burden & complications”

Message from Dr. D.B. Rathod, CDHO, Dahod



Dr. D. B. Rathod,
CDHO, Dahod, Gujarat

India has become a home to diabetics and the increasing diabetes burden in rural India, lead to diabetes prevention and management education programs at community level which would help in maintaining the quality of health care and motivate people with diabetes. I am happy to share that the government of Gujarat in association with NNEF, has launched the “Changing Diabetes® Barometer” programme in the 2nd district, Dahod, for managing the growing incidence of diabetes at the community level. The programme was started with a mega exhibition on diabetes in Dahod, to make people aware on the efforts of government to control diabetes. The programme is running successfully with the support of the project team and has screened about 1884 people for diabetes and blood pressure till date. The programme has also facilitated the measurement of glycosylated haemoglobin (HbA1c), in addition to various planned interventions. It is a matter of concern to note that 60.25% persons screened for diabetes have been found to have uncontrolled diabetes. On this occasion a mobile screening van, dedicated for the people of Dahod, was also flagged off by the dignitaries. This project aimed to set up speciality diabetic clinics in Dahod district for people with diabetes and to upgrade skills of doctors at primary health care centre to manage diabetes. Individual as well as group counselling was also offered to people with diabetes on various aspects of diet and exercise in controlling diabetes. I am happy to note that CDB programme in Gujarat aims to reduce the disease burden and its complications and work for a healthier society. I wish the Project Screening Team all the very best in reaching out to the community of Dahod.



Diet gallery relevant to the people of Dahod being explained by the Project Manager, Mr. Clifford D'souza to the key dignitaries



Dr V.R. Vachrajani, renowned foot surgeon with key dignitaries

PHC centric activities of CDB were rolled out phase-wise starting on 8th March, 2013 at Dahod. In Phase-I, 12 PHCs will be covered for 8 consecutive weeks on the identified day as below:

Diabetes clinic day	Group-1 PHC	Group-2 PHC
Friday	Bhathivada	Kharoda
Saturday	Borvani	Jekot
Monday	Agavada	Katvara
Tuesday	Motikharaj	Nagralla
Wednesday	Kathala	Khangela
Thursday	Bordi	Timarda

Diabetes Training Workshop at Dahod

Diabetes training plays a crucial role in empowering physicians to take appropriate treatment decision at the right time. PHCs serve as the primary loci for dispensing healthcare services to the population, specifically those sections which have little or no access to any healthcare. In the absence of the right skills and training for the treatment of diabetes in physicians at PHCs, there is likely to be a negative impact on people with diabetes, especially from the most vulnerable sections of the society. Thus, it is important to build capacity with a focus on “PHC-centric” measures.

A workshop was held on 7th March at Sadguru Foundation with 41 doctors participating from Dahod. Key objectives of the workshop were:

- To train doctors about optimal management of diabetes.
- Strengthen government system for better diabetes management.
- Set up speciality diabetic clinics in identified areas

The key faculties included Dr. Asha N Shah, Professor and HOD of Medicine, B.J. Medical College & Civil Hospital, Dr. Bharat Kaji, Prof of Medicine, B.J. Medical College & Civil Hospital, Dr. Ashvin Dabhi, Diabetologist & Clinical Nutritionist, Ahmedabad, Dr. Samir Zargar, Medical Advisor, Novo Nordisk (NN), Dr. Biranchi Jena, Project Manager, Programme & Research, NN and Mr. Clifford D'Souza, Project Manager, CDB Gujarat. Dr. D.B. Rathod (CDHO), keynote speaker, spoke on “Effective management of diabetes through PPP framework & implementation of CDB”.

The key topics covered in the training, followed by panel discussion were :

- What is CDB? How does it help the community : project process and expectations
- Implementation of diabetic management system at PHCs & introduction of online diabetes registry
- Definition, classification, diagnosis & pathophysiology of diabetes
- Prevention and management of diabetes
- Need and benefits of exercise, diet and lifestyle modifications
- Benefits of early insulin initiation and devices in diabetes



Participants listening attentively during the workshop



Medical officers with the faculty and CDHO at the workshop



1. Gorimedu 2. Koodapakkam
Map of Puducherry showing the location of the two PHCs.

CDB in Puducherry

CDB in collaboration with government of Puducherry has started sensitization program in two PHCs namely Gorimedu (Urban) and Koodapakkam (Rural). A total of 17,400 people at Gorimedu and 9,600 people at Koodapakkam were covered using the diabetes awareness van and public announcement system.

- Diet gallery was organized and diet counselling was offered to each individual by nutritional experts.
- Information, education and communication (IEC) activity was started in Koodapakkam on 22nd February and in Gorimedu on 28th February, 2013 and is still on-going with enquiry about the screening at the PHC.
- Diabetes awareness posters were displayed/ and diabetes awareness booklets were distributed along with diet gallery in two PHCs



Dr. K.V. Raman-Director receiving STENO Certification from hon'ble CM of Puducherry

List of Doctors from Puducherry who Successfully Completed STENO Practical Diabetology Training

Name	Designation	Institution
Dr. K V Raman	Director	DHFS
Dr. R N Seshasayanan	HoD, Medicine	Indira Gandhi Government General Hospital
Dr. J Ramesh	MD, Professor of Medicine	Indira Gandhi Government General Hospital
Dr. Vijay Bhaskar Reddy	Consultant Endocrinologist	Indira Gandhi Government General Hospital
Dr. Venkateswararao	Consultant Physician	Indira Gandhi Government General Hospital
Dr. A Arulvisagan	Medical Officer	Kodapakam PHC
Dr. V Umasankar	Medical Officer	Bahur PHC
Dr. Subitha	Diabetes councillor and educator	JIMPER
Mr. Muthuselvan	Male Health Assistant	Bahur PHC
Mr. B Giva Reddy	Male Health Assistant	Maducarai PHC
Mrs. A Viruthamballe	Female Health Assistant	Mannadipet PHC
Mrs. C Shakila	Female Health Assistant	Nettupalayam PHC

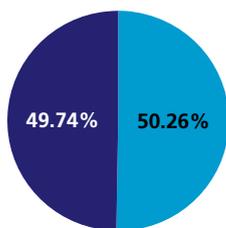
8 doctors & 6 nurses in the government sector were trained in Practical Diabetology with STENO University-(Denmark) Certification program. This initiative by CDB-Puducherry was appreciated by the Honorable Chief Minister of Puducherry Thiru. N. Rangaswamy through a felicitation event at the state assembly office on 26th March, 2013 and enquired about the progress & plans of the project in the UT.

Key findings from CDB program in Puducherry

About 1120 people were screened during launch of CDB in Puducherry from 30th to 31st October, 2012 and high diabetes detection rate was observed. Following are the risk factors for diabetes observed among people:

- Nearly 1 in 2 individuals in the urban area and 1 in 4 individuals in rural area was detected with diabetes (54.4% vs. 27.3%)
- More males (58.9%) were detected with diabetes compared to females (43.1%)
- Three out of every four individuals with age >60 years were found to have diabetes
- Detection of diabetes was slightly more in individuals with high waist-hip ratio (WHR) (57.9%) than normal WHR (50.5%)
- More than half of pre-obese (54.4%) or obese (51.2%) individuals were found to have diabetes

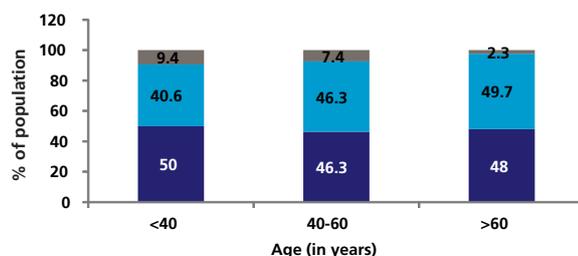
Percentage of screened population with controlled and uncontrolled diabetes



■ Controlled Diabetes ■ Uncontrolled Diabetes

Diabetes detection rate: 54.1%
Pre-diabetes detection rate: 7.0%

Age-wise distribution of people with diabetes in Puducherry



■ Controlled Diabetes ■ Uncontrolled diabetes
■ Newly detected diabetes

Disclaimer: The data analysed is based on the total number of people who attended the diabetes speciality clinic/ screening camp organised by NNEF in collaboration with Health & Family Welfare Department. Therefore the results may not reflect the actual prevalence rate of diabetes in the particular area.



Screening Camp at ESI UPHC, Hyderabad



Screening Camp at Tilaknagar UPHC, Hyderabad

CDB in Andhra Pradesh

The increasing burden of type 2 diabetes can be managed effectively by early detection of diabetes. Diagnosis and intervention earlier in the disease process may more effectively prevent or delay the development of diabetes-related complications. This would further lead to lower social as well as economic burden for the patient with diabetes.³

NNEF in collaboration with government of Andhra Pradesh (AP) has launched CDB programme for the prevention and control of diabetes on 17th December 2012. So far about 27 PHCs/UHCs have been covered in this program and 10,074 people have been screened in AP. Of the screened population, 1883 (18.69%) people had a known history of diabetes, 389 (3.86%) were newly detected with diabetes and 887 (8.8%) were found to have pre-diabetes. A total of 1427 people were screened for HbA1c and the average HbA1c was found to be 8.99%.

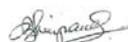
"CDB screening camps were beneficial to public"

Message from Dr. Shiva Prasad, Medical Superintendent, King Koti



Dr. Shiva Prasad
Medical
Superintendent,
District Hospital King
Koti

This is to certify that "Changing Diabetes® Barometer" health camp for screening of hypertension and diabetes mellitus cases was held at District Hospital, King Koti, Hyderabad from 11.02.2013 to 16.02.2013 by Novo Nordisk Education Foundation. During this camp it was found that the screening was very useful for the benefit of patients where in new cases of hypertension and diabetes were detected. It was also found that the percentage of poorly controlled diabetes was high for which steps have been initiated to bring their blood sugar level under control. This screening camp was found beneficial for the general population and it should be conducted atleast once in every six months.


Medical Superintendent
District Hospital King Koti
Hyderabad, Andhra Pradesh.
Medical Superintendent
Dist. Hospital, King Koti, Hy.

"CDB program is very helpful and encouraging"

Message from Dr. G. Lakshmi, SPHO, Nampally



Dr. G. Lakshmi
SPHO, Nampally,
Hyderabad, AP

The project of Changing Diabetes® Barometer, Novo Nordisk Education Foundation is really nice and helpful to people, to detect diabetes in early stages and counseling them how to deal with it. They have done a good work at our (1) Afzal Sagar UPHC, (2) Chintal Basti, UPHC and (3) Nampally UPHC till date. It is very helpful and encouraging for the people to come forward and get the investigation done. Such projects are really appreciated and encouraged by our medical fraternity.


[DR. G. LAKSHMI]
SPHO
SPHO NAMPALLY
UPHC Nampally
Hyderabad



Screening Camp at Chintalbasti, Hyderabad



Participants at the screening and awareness camp in Hyderabad



CDiC in India - Journey So Far....

During the last 16 months, after its successful launch, the Changing Diabetes® in Children (CDiC) program has progressed well in achieving its set objectives. The key achievements during this period are listed below:

- 20 centers of excellence for children with type 1 diabetes have been set-up across the country
- 3,900 children have been registered
- More than 100 children camps have been conducted to educate children for better management of diabetes
- More than 900 doctors across India have been reached through one-day workshops to manage children with type1 diabetes in partnership with the International Society for Pediatric and Adolescent Diabetes and local faculty
- To help the children understand their diabetes well and to confidently self-manage diabetes, several innovative child friendly patient education tools have been created. These include:
 - Mishti book: story book of a little girl with type 1 diabetes
 - NOTTI toy: (Novo Nordisk Teaches to Take Insulin)a soft toy
 - Snake and ladder game
 - Make a healthy change folder
 - Hypo kit (help them prevent hypoglycaemia)

CDiC - Key Activities

1st CDiC International consensus meet on childhood diabetes was held from 12th to 13th January, 2013.

- More than 345 endocrinologists, diabetologists, paediatric endocrinologists and physicians across India and other neighbouring countries like, Bangladesh, Sri Lanka, Cameroon, Ethiopia, Burma & Vietnam attended the program
- The consensus meet aimed at:
 - Reviewing and understanding the current burden of type 1 diabetes in India and other participating countries
 - Sensitising the health authorities and policy makers on this fast growing problem
 - Increasing government and other NGOs focus and participation to support children with type 1 diabetes from the poor socio-economic strata
 - Arriving at a consensus statement to improve the awareness, diagnosis, management and access to needed medication for children with type 1 diabetes
- Proceedings of the program with the consensus statement on managing children with diabetes will be released shortly in the form of a booklet

In the current year the major focus will be on follow-up with the registered children and improving awareness among HCPs. House surgeons' meet on, "management of children with type 1 diabetes", have been initiated in medical colleges to reach out to young doctors.



CDiC International Consensus Meet



Physicians from Across India

Voice of Beneficiary

Karthik (name changed), who enrolled at Bangalore diabetes hospital was given a new life due to the CDiC program. During the month of December, on a routine visit, Dr. Vimala Puranik along with 2 other volunteers visited the government primary school, Attiguppe. They came across a boy aged 12, who was diagnosed with type 1 diabetes during screening. The family did not have enough money for even basic medication as father worked as a construction worker and mother as a maid.

His parents could not afford medical treatment in the long run and requested CDiC for help. She told that from last 15 days they could not give him insulin and due to which the sugar level had gone as high as 393 mg/dL on fasting. Dr Jayalakshmi, who worked for the school, had heard about the CDiC program and its center at the Bangalore diabetes hospital and referred Karthik for treatment. After the preliminary investigations, he was registered in the CDiC program and given all the essentials, viz., insulin, syringes, glucometer, sugar testing strips, glucose diary and a kit to carry all these together.

As a follow up, when the doctors and volunteers again met this boy in school after a few months, they found a very different boy He is very smart and has already learnt to inject insulin. He said, "With proper insulin, healthy lifestyle and conscious food habits a person can have longer lifespan".

Journal of Social Health and Diabetes (JOSH-D)

Currently, global burden of diabetes is an emergency in slow motion. Although we have progressed significantly in clinical aspects of managing diabetes, still there is a gap in complementing the clinical efforts through the social and psychological aspects of diabetes.

Novo Nordisk Education Foundation (NNEF), headquartered in Bengaluru, India, is committed to improving diabetes awareness in the community and strengthening the social and psychological links for better diabetes management. With this mandate in mind, NNEF is working to change and improve the social and psychological environment of people with diabetes, through research, training and community programmes. Nonetheless, research-oriented, practically applicable and academically sound discourse on the treatment of diabetes has to be created to effect lasting change at every level in the society. As part of this endeavour, NNEF publishes a bi-annual journal entitled "Journal of Social Health and Diabetes (JOSH-Diabetes)". A word common to many Indian languages, the acronym JOSH stands for "enthusiasm".

JOSH-Diabetes facilitates the exchange of ideas, best practices for managing diabetes at the grass root level, and innovative research in the field of social aspects of diabetes management. It is designed to help policy makers, academicians, social activists and researchers stay abreast of the social and psychological issues pertaining to diabetes management at the community-level. JOSH-Diabetes also aims to create a platform to make social science and diabetes (SSD) a multidisciplinary research area and to bring desired results in the health sector in particular and overall society in general.

Call for Papers

The manuscript may be submitted online at
<http://www.joshd.net/submitarticle.asp> (or)
<http://www.journalonweb.com/joshd/>

Manuscripts in the following may be submitted for publication:

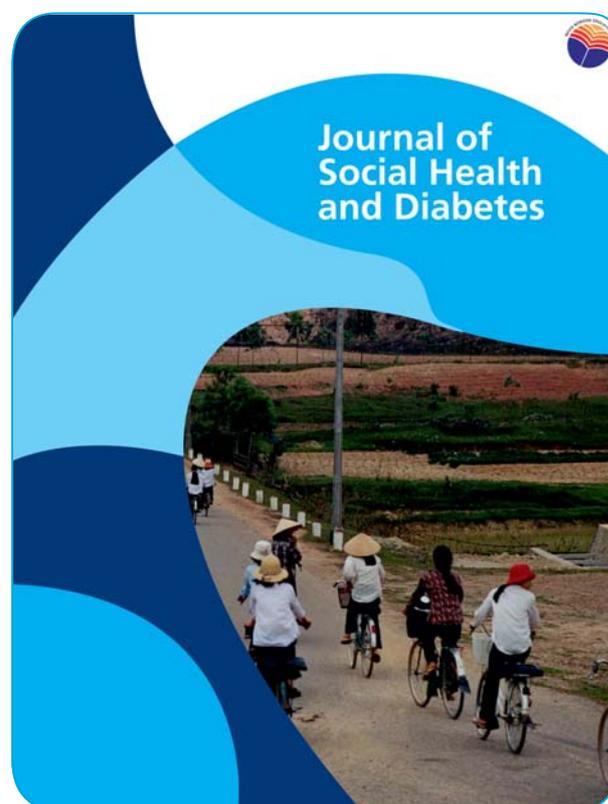
- Social Science and Diabetes (SSD)
- Knowledge, Attitudes and Practices (KAP) of diabetes
- Psycho-social and demographic aspects of diabetes
- Applied research studies on Diabetes
- Health Economics for Diabetes
- Critical reviews of major social issues of Diabetes
- Government policies influencing all facets of managing diabetes

The Journal would help the following audience:

- Policymakers
- Public health specialists
- Endocrinologist, diabetologist and practicing physicians
- Academicians
- Social scientist and activists
- Researchers on social and psychological aspects of diabetes

Articles may be submitted in the form of:

- Original research articles
- Review articles
- Methodological issues on psychosocial research on diabetes
- Brief communications/short reports
- Letters to editor



The current issue can be downloaded from
<http://www.joshd.net/currentissue.asp?sabs=n>

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Healthy Life with Diabetes: 5 Things You Should Know

- Insulin is a natural hormone our body creates. If for some reasons body cannot produce insulin or produces less insulin, then a person develops diabetes and need to take insulin from external source.
- When people take insulin to manage their blood sugar, they are replacing something their body once used to make naturally.
- Insulin should be a part of an overall diabetes treatment plan, including diet, exercise, and monitoring. If you eat a poor diet your insulin has to work even harder to lower your blood glucose. Any medication is only a part of the diabetes treatment plan.
- Insulin is available in various strengths. Choose the right insulin syringe to match the strength of Insulin you use. U-100 syringes (Orange cap) are designed to provide the proper amount of U-100 insulin. Likewise, U-40 syringes (Red cap) are calibrated to the proper concentration of U-40 insulin.
- Ask your doctor which insulin you are using and when to take it– If it is human insulin, it needs to be taken 30 minutes prior to your main meal, for modern insulin you can take food within 5-10 minutes or even immediately after taking insulin.

Diet in Diabetes: Green Zone Food

Green foods have high food value and can be eaten every day. They have low calorific value and hence the volume of the meal can be increased to the level of satisfaction. They are neither highly processed nor do they contain synthetic, artificial or irradiated ingredients. They are not only helpful for the people with diabetes but also can reduce the risk of cancer, cardiovascular diseases, high blood pressure and obesity. Following are some of the foods in green category:

- Whole grains- whole wheat flour, brown rice, oats, barley, corn, bran, rye
- Vegetables – asparagus, beets, broccoli, brinjal, cabbage, carrots, cauliflower, cucumber, garlic, gourds, green peas, green beans, mushroom etc.
- Berries, guava, kiwis, lemons, melons, oranges, plums, papaya etc.
- Butter milk, lime water, Low fat yogurt

The Diabetes Puzzle

Search green zone food items in the puzzle below. The items include the following list. Any more items that you can think of, and we haven't listed here? Please tell people with diabetes about them.

- 1.Rye
- 2.Turnips
- 3.Olive
- 4.Beets
- 5.Cabbage
- 6.Lemon
- 7.Papaya
- 8.Oats
- 9.Tomato
- 10.Beans
- 11.Broccoli
- 12.Carrots
- 13.Oranges
- 14.Brown rice
- 15.Onion
- 16.Garlic
- 17.Brinjal
- 18.Radish

L	N	B	E	A	N	S	B	T	A	E
B	S	B	E	E	T	S	R	S	Y	O
S	E	I	L	O	C	C	O	R	B	S
A	G	H	R	A	O	O	W	B	T	A
N	N	R	R	T	J	T	N	U	E	B
P	A	P	A	Y	A	N	R	G	G	E
C	R	M	Y	D	N	N	I	A	A	V
N	O	I	N	O	I	T	C	R	B	I
T	R	R	M	P	A	S	E	L	B	L
T	N	E	S	O	W	T	H	I	A	O
S	L	S	M	U	L	P	S	C	C	R

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