

An abstract graphic consisting of several overlapping, curved shapes in shades of orange and red, resembling a stylized 'W' or a series of peaks and valleys.

CHANGING THE COURSE OF CHRONIC DISEASE... One Community at a Time

Dr Susheela
Venkataraman

Arogya in Sanskrit means good health. More literally to live a life without disease.

Chronic non-communicable diseases called NCDs, include heart diseases, cancer, diabetes and chronic lung diseases

THE PROBLEM

NCD's* among top health and development challenges of the century

- **2 out of 3 deaths** in the world due to NCDs, **80%** in developing countries

Alarming Disease Burden in India

- **>20%** of population in India has one chronic disease; 10% have more than one
- **50%** population dies from chronic diseases
- **66 million** live with diabetes. Diabetes kills 1 million Indians/yr (IDF)
- Indians get diabetes **10 years earlier** than in the West
- 2/3 India's 1 billion plus people < 35 years old = **alarming public health crisis** over next 20 yrs



Devastating Economic Impact



- **The World Economic Forum estimates staggering impact:**
Cumulative economic output loss from NCDs (including mental health) in 20 yrs =
- **Serious developmental hurdle says International Diabetes Federation:**
25% of a poor Indian family's income spent on care for one person with diabetes.

\$47
trillion

- Arogya's 10,000 women's survey confirms:

- **25%** women spend **25%** of household income on NCDs.
- Shockingly, **7%** say they spend **50%** of household income on NCDs.

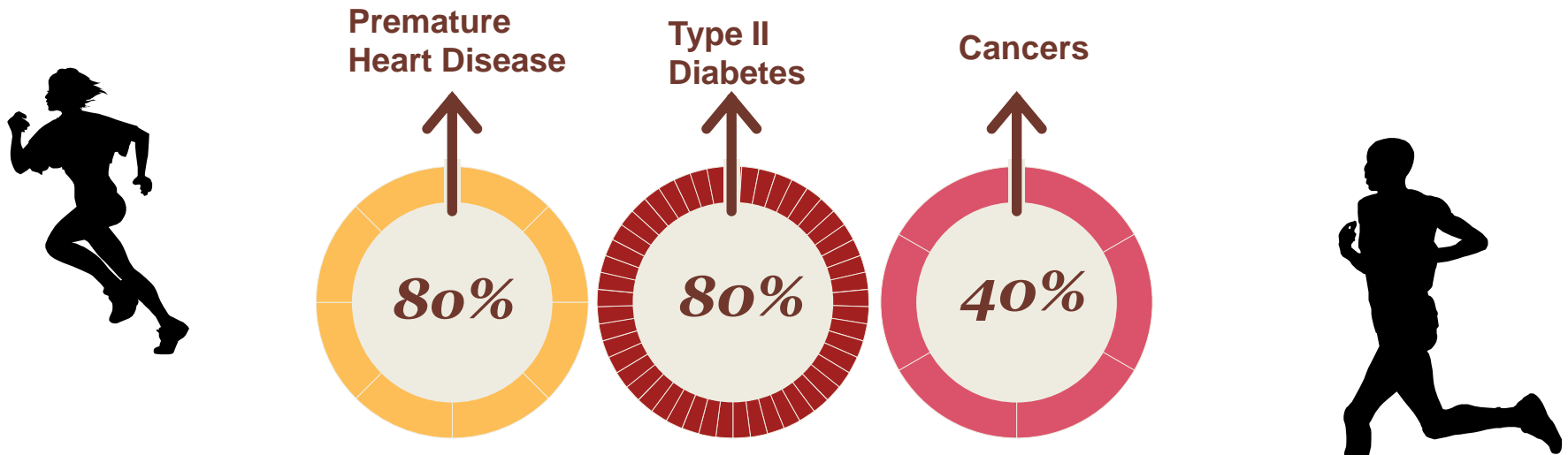


*NCDs = heart disease, diabetes, cancer, chronic lung diseases

THE SOLUTION: PREVENTION!

Compelling Clinical Proof Exists that NCDs Can Be Prevented

➤ According to WHO, a healthy diet, exercise and avoiding tobacco can prevent:

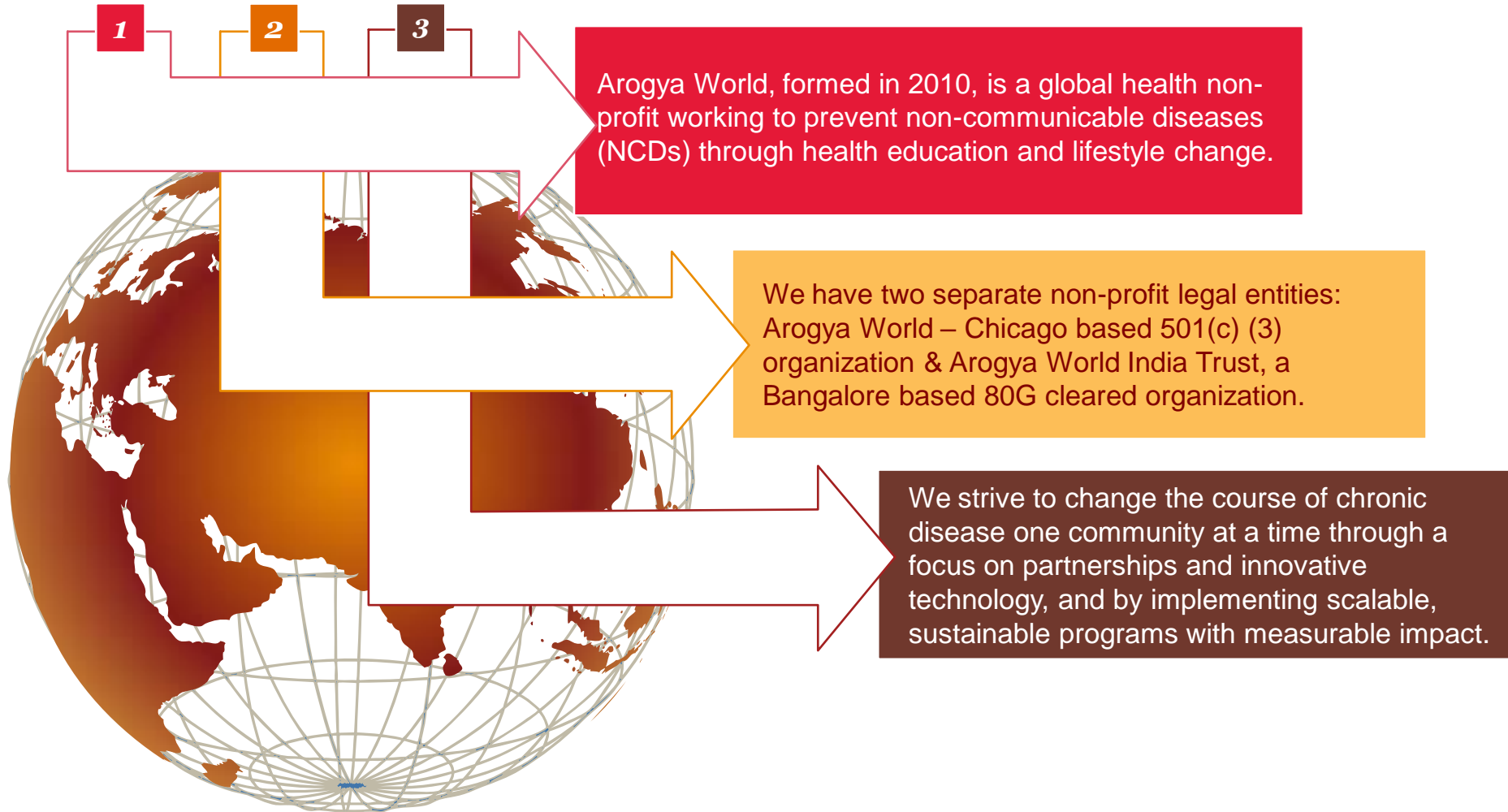


➤ **Landmark Clinical Trial - Diabetes Prevention Program (DPP):**

- 30 min physical activity/ day + low-fat diet reduced chance of getting diabetes by 58%, (*Metformin: 31%*)
- 3,234 high-risk adults in the US. (*NEJM, Feb 7 2002*)
- Diabetes prevention with lifestyle changes sustained for 10 yrs (*The Lancet – 2009*)
- Also confirmed in Indian studies

INTRODUCING AROGYA WORLD –

PREVENTING NCDs THROUGH HEALTH EDUCATION AND LIFESTYLE CHANGE



We see ourselves as an ecosystem builder for NCD prevention in India.

OUR INDIA WORK

Innovative Programs

- **Our Women and Children Initiative**
 - Healthy Schools, MyThali
- **mHealth** mDiabetes; myArogya
- **Healthy Workplaces**

Field-Shaping Activities

- **Build ecosystem of wellness and prevention stakeholders**
- **Hold Summits on Key Topics to spark a national dialogue on wellness and NCD prevention**

Measurable Impact

We have **educated > 1 million** with mDiabetes And **reached 2 million** in Healthy Workplaces



Have helped **150,000** people lead healthy lives in our first five years.

We want to help **1 million** people in India lead healthy lives by the time we are 10 years old (by 2020)...



HEALTHY SCHOOLS – 14% IMPACT

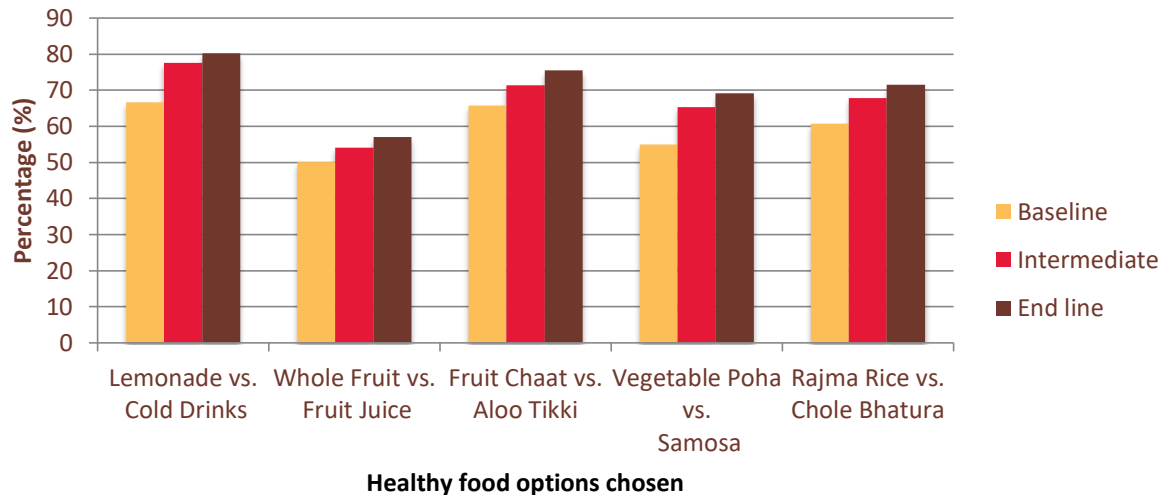
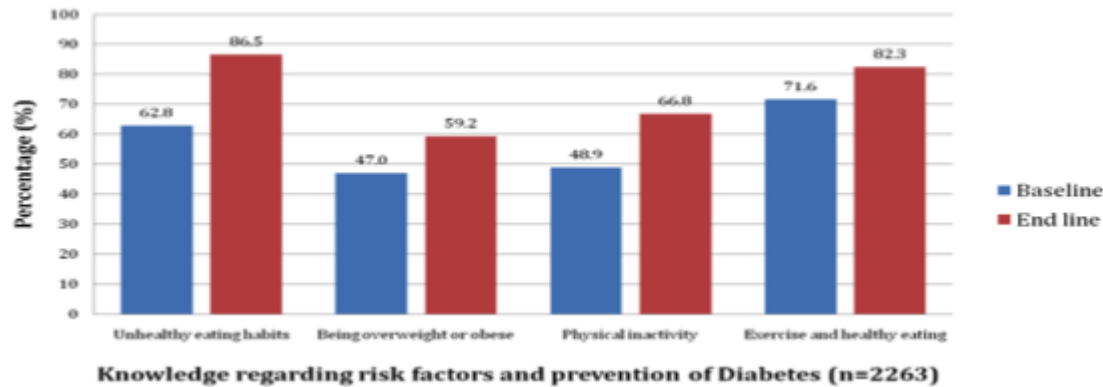
- Based on a school education model for tobacco control, Arogya World established a two-year school-based program designed to teach middle school children the basics of healthy eating and physical activity, with the goal of preventing diabetes.
- Uses influencers such as teachers and peers whom we train.
- Key Partners Hriday, Agastya International Foundation
- 8000 kids have participated
- Children from urban and rural areas, N & S India participate.
- 14% Behavior Change Impact



On track to fulfill our *UN Every Woman Every Child 2014* Commitment to educate 10,000 children in 5 yrs.

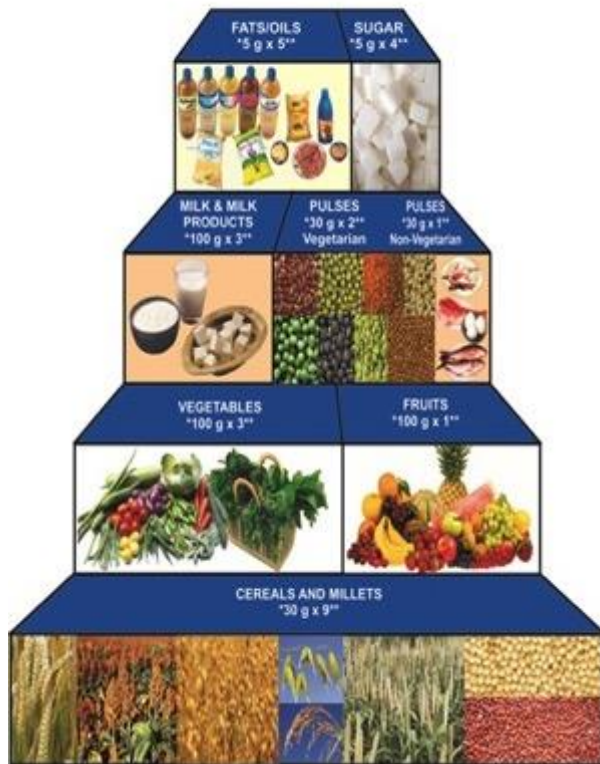
RESULTS

AWARENESS INCREASED, EXCITING BEHAVIOR CHANGE



NATIONAL INSTITUTE OF NUTRITION (INDIA) GUIDELINES

BALANCED DIET FOR ADULT WOMAN (SEDENTARY)



* Portion Size.

** No. of Portions

Extra Portions:

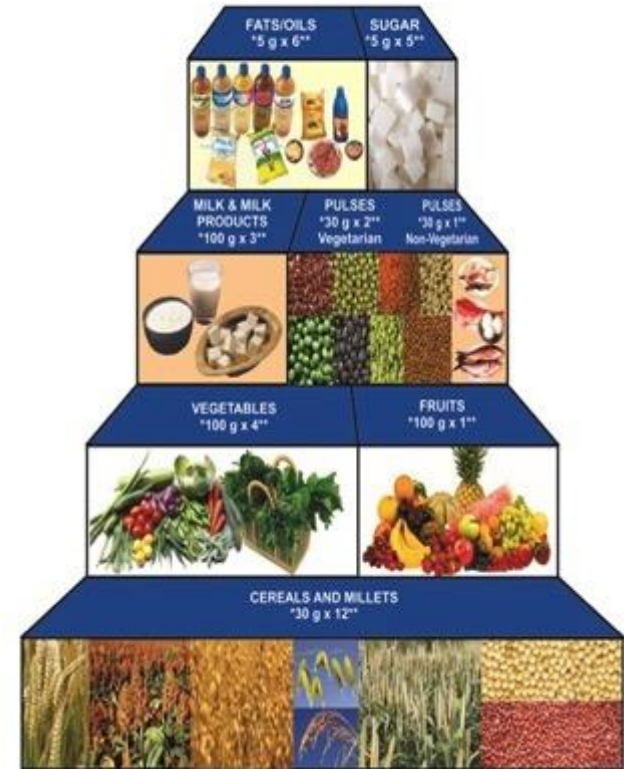
Pregnant women : Fat/Oil-2, Milk-2, Fruit-1, Green Leafy Vegetables-1/2.

Lactating women : Cereals-1, Pulses-2, Fat/Oil-2, Milk-2, Fruit-1, Green Leafy Vegetables-1/2

Between 6-12 months of lactation, diet intake should be gradually brought back to normal.

Elderly women : Fruit-1, reduce cereals and millets-2.

BALANCED DIET FOR ADULT MAN (SEDENTARY)



* Portion Size.

** No. of Portions

Elderly man: Reduce 3 portions of cereals and millets and add an extra serving of fruit

My Thali: Lunch

Adolescent Urban Girl
(13-15 years)
Vegetarian

W Indian Lunch

2 pcs chapatti
1 cup cabbage veg.
1 cup plain rice
1 cup redgram(tuver) dal
½ cup curd
½ cup salad

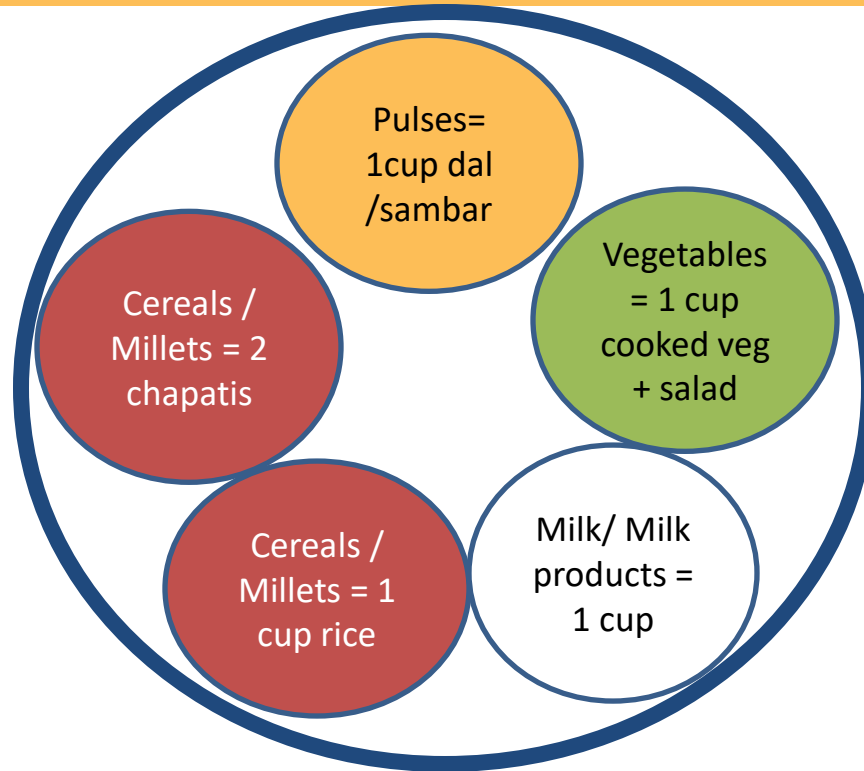
E Indian Lunch

2 cups plain rice
1 cup fish curry
½ cup lentils dal
1 cup bittergourd (karela)
veg.
1 cup curd



Cup 200 ml

1 cup = 200 ml
of cooked food



S Indian Lunch

1 cup lemon rice
1 cup plain rice
1 cup rasam
1 cup avial or poriyal
1 cup curds
½ cup salad

N Indian Lunch

1 cup rajma curry
1 cup chaval
2 pcs parathas
½ cup salad
1 cup lassi

- Non vegetarians can substitute 1 portion (30g) of pulse (1 cup cooked) for 50 g. of egg /meat /fish /chicken.
- Fats/oil/ghee: Use 2-3 tsp /meal (8 tsp in a day; 5-6 tsp/d if overweight).
- Sugar/jaggery: Use 2tsp/meal (5 tsp/day; 3 tsp/d if overweight)
- Salt- use sparingly; minimize salted, processed foods.
- Consume 1 fruit per day (e.g. as snack).

Our FLAGSHIP PROGRAM

A groundbreaking one-million-person diabetes awareness and prevention mHealth program in India. A Completed 2011 CGI Commitment to Action.



CHANGING THE COURSE OF
CHRONIC DISEASE

AROGYA
WORLD
Turn to Action. Turn to Change.

Our Partners

NOKIA

 **EMORY**
Diabetes Training and
Technical Assistance Center
Emory Centers for Training
and Technical Assistance
ROLLINS
SCHOOL OF
PUBLIC
HEALTH

aetna *Johnson & Johnson*


Ipsos

**Behavior
Change
Task Force**



299/611 experimentals improved health
185/635 controls improved health

**Impact of
nearly 20%**

COMBINATION NCD PREVENTION



Dietary fiber may lower risk of heart disease and diabetes



Eat plenty of vegetables, fruits, and whole grains. These foods contain fiber which can help reduce the...



The major risk factors for developing heart disease are high blood pressure, high blood cholesterol, diabetes,...

TRACKERS



Food/Activity



Sleep



Weight



Home



Learn



Progress



Profile

Back

The major risk factors for developing heart disease are high blood pressure, high blood cholesterol, diabetes, smoking, being overweight, physical inactivity, and an unhealthy diet. What risk factors do you have?



Sitting or being physically inactive is as bad for your health as smoking



Heart disease and stroke are [cardiovascular diseases](#) (diseases of the heart and blood vessel). [Risk factors](#) are



Home



Learn



Progress



Profile

WHY WORKPLACES?

Workplaces offer a unique avenue to promote healthy living. Why?

- India is a young country. 2/3rds < 35 yrs
- India's population pyramid expected to "bulge" across 15-64 age bracket increasing the working age population from 761 million to 869 million in 2011-2020.[FICCI, EY, 2014].
- Workplaces employ millions of young Indians:
 - Sedentary jobs
 - Long, unpredictable hours
 - Long commutes and stress
 - Irregular eating, sleep, & exercise
 - People spend much of the day at work.
- Attractive platform to educate busy professionals and change behavior.
- Mobilize the private sector in fight against NCDs.



OUR HEALTHY WORKPLACE CRITERIA

<p><i>Companies must meet 80% of the criteria; those in bold are mandatory.</i></p>	<p>BRONZE</p>	<p>SILVER (and meets Bronze criteria)</p>	<p>GOLD (and meets Bronze + Silver criteria)</p>
<p>TOBACCO POLICY</p>	<p>Ban On-Site Tobacco Use.</p>	<p>Help employees quit tobacco by providing counseling.</p>	<p>Reimburse nicotine replacement/other therapies.</p>
<p>HEALTHY EATING</p>	<p>Make available affordable healthy foods, with National Institute of Nutrition (NIN) recommendations displayed in cafeteria. No junk food or sugary soft drinks at meetings.</p>	<p>Healthy Meals should be accessible and available every day, and should be below NIN requirements. Food should be prepared hygienically.</p>	<p>Food in company cafeterias should have no trans fats.</p>
<p>PHYSICAL ACTIVITY</p>	<p>Promote use of stairs and bicycles within the campus. Provide walk paths. Hold annual sports competitions.</p>	<p>Promote and offer access to yoga programs.</p>	<p>Offer free gym on campus or highly discounted admission to external gyms. Give exercise breaks during work day.</p>
<p>WORK-LIFE BALANCE</p>	<p>Provide a work-life balance policy. Offer flextime. No fixed workday start and end times, and lights-out after hours is appropriate.</p>	<p>Set up external Employee Assistance Program/Counseling services to help employees manage stress.</p>	<p>Employee Satisfaction Surveys show an uptick in employee perceptions of work-life balance.</p>
<p>SHIFTING MINDSETS</p>	<p>Leadership must show visible endorsement for healthy workplace in speeches, emails, etc. Initiate a Healthy Workplace communications campaign.</p>	<p>Set up health committees. Communications campaign should cover reducing salt, sugar and fat consumption.</p>	<p>Include employee work-life balance in managers' appraisals. Motivate entire teams by rewarding health goals met. Designate health ambassadors.</p>
<p>OTHER</p>	<p>Encourage environmental health and hygiene including safe drinking water, clean bathrooms, etc.</p>	<p>Have doctor/nurse on site or on call. Encourage annual check-ups. Greater awareness of healthy posture/ergonomics.</p>	<p>Evaluate impact of workplace wellness investment and quality of programs. Emphasize awareness of women's health.</p>

OUR HEALTHY WORKPLACES

2016

32 Pioneering Workplaces

Hindustan Unilever Limited
 Reliance Industries Limited
 Mahindra & Mahindra Ltd. ,
 Igatpuri
 Dow Chemical International
 Pvt. Ltd.
 Gujarat Cement Works-Unit of
 UltraTech Cement Ltd.
 Mahindra & Mahindra Limited,
 Farm Division, Nagpur
 Cigna TTK Health Insurance Ltd
 MSD Pharmaceuticals Pvt. Ltd.
 NTPC Limited
 NES Ratnam College
 KSRTC
 BMTC
 Britannia Industries Ltd.
 NTPC Ltd. - Power
 Management Institute

IOCL, Corporate Office
 Tata Power Solar
 Manipal Hospitals, Bangalore
 TVS Motor Company
 Fortis Hospital Limited,
 Bannerghatta Road
 Columbia Asia Hospital - Hebbal
 Vijaya Bank
 Columbia Asia Hospital - Whitefield
 Philips India Limited
 Manipal Northside Hospital
 RTO Yeshwantapur , Bangalore
 Indian Railways
 Vikram Hospital, Bengaluru
 Indian Oil Corporation Ltd.,
 Karnataka
 M/s. Karnataka Power Corporation
 Limited
 Mahindra & Mahindra Limited -
 Group Corporate Office
 Toyota Kirloskar Motor Pvt. Ltd.
 Meenakshi Energy Pvt. Ltd

2016 PLATINUM

Reliance Industries Limited
 Reliance Industries Limited
 Hoshiarpur
 Wipro
 Reliance Infrastructure - Mumbai
 Transmission Business
 SREI
 Madura
 Johnson & Johnson

Certificates of Merit

MTR Foods Private Limited
 Tata Chemicals Limited
 Bharat Petroleum Corporation
 Limited

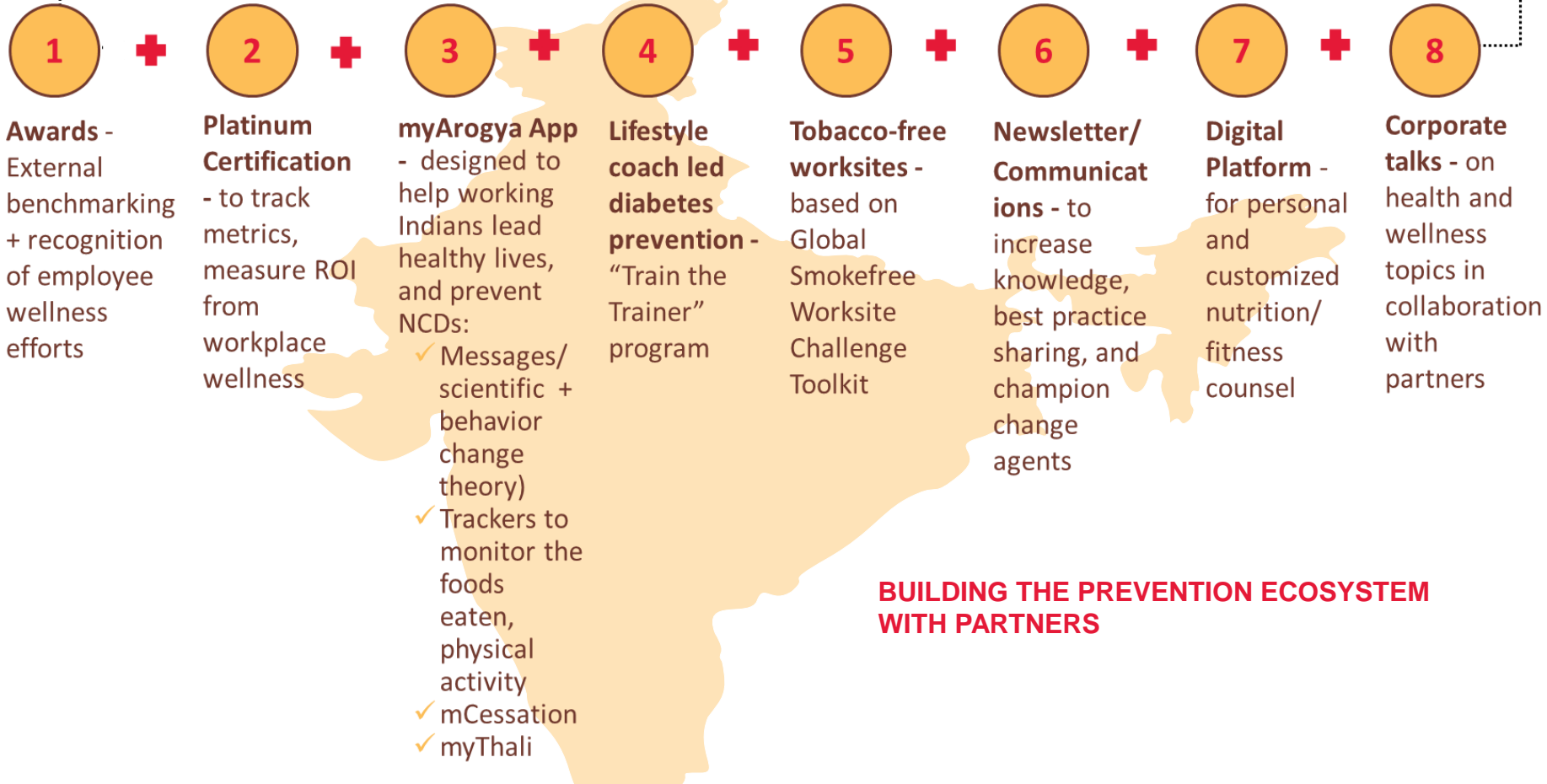
TOTAL : 79 organisations

2 million employees

2017 TARGET: over 100



AROGYA WORLD'S OFFERINGS



BUILDING THE PREVENTION ECOSYSTEM WITH PARTNERS

Measurable, meaningful impact spurs us on

Arogya 2020

Build the Case for NCD Prevention

- Publish and promote research –
- mDiabetes JMIR Aug 2016
- Platinum ROI data
- Conduct 2-3 annual summits/ events – Healthy Workplace, Salt Summit

Influence Behaviour Change

- Strengthen/design innovative, science-based programs to guide consumers towards healthy living
- Take prevention to where people live, work and study to increase adoption

Scale through Partnerships

- Gain scale while keeping the Arogya organization lean through 4-5 strategic partnerships with CSOs, nutritionists, life coaches, wellness stakeholders, govt, private sector
- Partner with credible industry body

Drive Results Measure Impact

- Establish proof of concept
- Actively implement programs to reach 150 - 200 workplaces (3 million employees), 2 million women and children, 2 million mHealth consumers.
- Impact – improve the health of over 1 million people.

NEXT STEPS

- Schools – Partner with large networks eg Ashoka Nourishing Schools, etc.
- MyThali – Refine, promote to large networks of women through Rotary, SEWA, school children, working families etc.
- mDiabetes – seeking funding from Lions to reach large numbers of family members of patients via hospitals, eye hospitals etc.
- myArogya – provide to Healthy Workplaces to improve health of employees, and provide insights to HR on health behaviors of their employees
- Healthy Workplaces – seek endorsement from industry bodies like IAOH, Nasscom etc.

THE AROGYA WORLD FAMILY

➤ Arogya World India Trust Board (India)

Mr. BS Ramaswamy - Chairman of the Board of Trustees, Founder Trustee • **Dr. Nalini Saligram** - Founder Trustee

Dr. Susheela Venkataraman – former Chief Technology Officer, Asian Development Bank

Dr. Arun Gowda – Dir., Phamax AG, Market Access Consulting • **Ujwal Thakkar** - Former Head of Pratham

➤ Arogya World Board (US)

Dr. Nalini Saligram - Founder & CEO • **Dr. Pamela Yih** - Treasurer, Owner Pamela Y-F Yih Inc.

Kathryn Graves - Head of Dev, Emory, Rollins School of Public Health • **Dr. Seema Bhatia** – Internist •

Deepa Prahalad - Business strategist • **Neeru Arora** – IT strategy expert, Aon, **Gloria Barone** – Communications expert, Cigna • **Heather Nornes** – legal counsel • **Candice Fink** – legal counsel

➤ Consultants/Staff

Shyamala Sami - Finance India • **Dr. Sandhya Ramalingam** - Program Evaluation, India • **Dr. Geeta Bharadwaj** - Healthy Workplaces, India • **Usha Chander**, Healthy Workplaces, India • **Nandini Ganesh** - Administrative Services, India

Carrie Hutchison - Digital and Social Media • **Shubhada Kanani** – nutritionist, India • **Erin Justen** – Development

Meeta Walavalkar – mHealth Lead India

Accountants: **Nityanand & Co** – Bangalore • **Robert Small, Friedman** – Philadelphia

Law firms – US - **Duane Morris** (probono); India - **Nishith Desai & Associates**

AROGYA INFLUENCER NETWORK

➤ Senior Advisors

Mr. Raj Dave – CEO, HealthArc • **Dr. Meryle Melnicoff** - Former Board Member, Arogya World • **Dr Bob Kushner**, Northwestern Univ • **Sally Cowal**, American Cancer Society

➤ Behavior Change Task Force

US: **Dr. Fran Kaufman** - Medtronic • **Dr. Linelle Blais** - Emory University; **UK:** **Ms. Zoe Hellman** - Weight Watchers
India: **Dr. Ranjani Harish** - Dr. Mohans Diabetes Specialities Centre • **Dr. Monika Arora** - Hriday-Shan
Mr. Sukanti Ghosh - APCO Worldwide • **Dr. Kanav Kahol** – PHFI

➤ Indo-US Scientific Steering Committee

India: **Dr. K.Srinath Reddy** – Public Health Foundation of India • **Dr. V. Mohan** - Madras Diabetes Research Foundation
Dr. Ashok K. Das - Addnl Dir Gen Health Services • **Dr. Prabhakaran** - Centre for Chronic Disease Control - **Dr. Nikhil Tandon** - All India Inst. of Medical Sciences • **Dr. Prasanna Kumar** - Bangalore Diabetes Hospital
US: **Dr. K.M. Venkat Narayan** - Emory University • **Dr. Francine Kaufman** - Medtronic • **Dr. Sethu Reddy**, Joslin Diabetes Center, Harvard • **Dr. Om Ganda** - Joslin Diabetes Center, Harvard • **Dr. Bonnie Spring** – Northwestern Univ

➤ Advisors

Dr. A. Ramachandran - India Diabetes Research Foundation • **C.V. Madhukar** Omidyar • **Nikhil Narayan**, Bangalore
Dr. Arun Chockalingam - University of Toronto • **Dr. David C. U'Prichard** - Druid Consulting • **Parminder Batra** – attorney
Dr Neelum Aggarwal – Rush University • **Trishna Dey** – India Development Expert

PARTNERSHIPS ARE CORE TO OUR SUCCESS



NOKIA



Schools

HRIDAY-SHAN
Merck, MSD-India
Agastya Foundation

myArogya



Emory University, CLICK MEDIX
Madras Diabetes Research
Foundation, Quest Diagnostics



ASHOKA

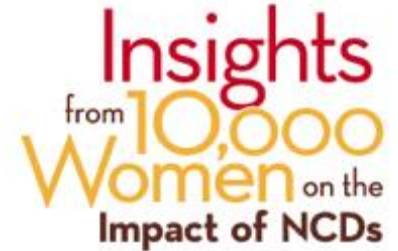
Women & NCDs Task Force
WHO (Global Co-ordinating
Mechanism; mHealth group)

Healthy Workplace



CLINTON GLOBAL INITIATIVE
2013 COMMITMENT TO ACTION

PHFI, Aon, +
ActivDoctorsOnline + others
Jamnalal Bajaj Foundation



Novartis

Partnership to Fight Chronic Disease

American Cancer Society,
UNICEF, PSI, Abt SRBI, Jana



CLINTON GLOBAL INITIATIVE
2013 COMMITMENT TO ACTION