Expert testimony: Translation of major trial evidence into practice across Europe

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We know that the prevention of diabetes mellitus is effective, feasible, evaluated but difficult, time consuming, challenging

How to get it to practice
We need

Plan

Concept

Action
Plan

Development of an Global Action Plan - Diabetes Prevention

The action plan should identify essential activities and available resources for diabetes prevention and spell out the responsibilities of each stakeholder and their involvement. In addition, the plan should recommend and outline action steps specific to each involved cohort - (e.g. families, friends, health care providers, the media, health insurance providers, employers, researchers, professional educators, ethnic and cultural groups to name but a few).
Concept

3 Steps of a Diabetes prevention program

Detection of increased diabetes risk

Timely limited intervention to prevent diabetes

Continuous intervention and quality management
Developing a prevention strategy

- be structured – easy to understand
- find people where they are – setting approach
- focus on the individual – empowerment
- involve regular contact with individuals with prediabetes
- recruit educated lifestyle managers
- continuously evaluate the success of prevention strategies
- use screening tools that are applicable in a population setting
- include quality management – prevention management
### Specific objectives

1. **Development of a European practice-oriented guideline for prevention of type 2 diabetes**

2. **Development of a European curriculum for the training of prevention managers**

3. **Development of European standards for continuous quality control and evaluation of prevention programs for type 2 diabetes**

4. **Development of a European e-health training portal for prevention managers**

=> European standards applicable in all member states will help to reduce inequalities in health
The IMAGE project – Partners involved
Thank you very much
Action

Take Action to prevent Diabetes

A toolkit for the prevention of type 2 diabetes
TAKE ACTION TO PREVENT DIABETES

A toolkit for the prevention of type 2 diabetes in Europe

Executive Summary

When we ask people what they think seriously is, usually top of the list. While effective care is available for many chronic diseases, the fact remains that for the majority of patients and the world of society, prevention is better than cure.

Diabetes is a condition that is becoming a major threat to the health and well-being of an increasing number of people. It is estimated that 15% of Europeans aged 25 to 79 have developed diabetes by 2000. Such a number of people with diabetes in Europe are due to factors such as age and a lifestyle of smoking, diet, and lack of physical activity.

The global prevalence of type 2 diabetes is increasing rapidly, and this is expected to continue into the future. The economic burden of diabetes is significant, with direct medical costs and lost productivity estimated at 5% of total health care expenditure in Europe.

The good news is that diabetes is preventable. Controlling diabetes is possible, but it requires lifestyle changes to reduce the risk of developing diabetes. Lifestyle changes include adopting a healthy diet, increasing physical activity, and maintaining a healthy body weight. These lifestyle changes have been implemented in real-life prevention programmes. A substantive 10% reduction in the progression to diabetes is expected in these diabetes-related complications such as heart disease and eye disease could be reached over the next 10 to 20 years.

A comprehensive approach to diabetes prevention, treatment, and management is needed to delay the onset of type 2 diabetes. The implementation of these strategies requires a multidisciplinary approach involving health care professionals, diabetes educators, and other stakeholders.

THE WORLD'S FIRST ACTION PLAN


The plan emphasizes the importance of preventive measures to reduce the risk of diabetes. It includes strategies to promote healthy lifestyles, such as regular physical activity, a healthy diet, and weight loss. The plan also focuses on early detection and treatment of diabetes, as well as providing support to people living with diabetes. The plan aims to reduce the number of new cases of diabetes by 30% by 2025.

KEY POINTS

- Lifestyle changes can reduce the risk of developing diabetes.
- Preventive measures are essential to reduce the burden of diabetes.
- International cooperation on diabetes prevention and control is needed.

The success of the Global Action Plan on the Prevention and Control of Non-Communicable Diseases, 2013-2020, will depend on the implementation of effective strategies and the involvement of all stakeholders. The plan provides a framework for countries to develop their own national action plans and strategies to prevent and control diabetes.

The Global Action Plan on the Prevention and Control of Non-Communicable Diseases, 2013-2020, is a comprehensive and evidence-based approach to addressing the global diabetes epidemic. By implementing the strategies outlined in the plan, countries can make significant progress in reducing the burden of diabetes and improving the health and well-being of their populations.
General aim

- To provide a **credible, simplistic, concise, clear, pragmatic, accessible** document with a **positive message** about health promotion

- Grounded on the IMAGE evidence-based guideline and training curriculum for prevention managers and should preferably be used alongside them

- Target group
  - **Politicians / policy makers** (esp. executive summary)
  - All **service providers** in the field of health care and promotion
    - Background / education in health care – basic knowledge
  - Information for “clients” will be included within the document and will be provided to them by the person delivering the intervention.
What is necessary

SMART Goals
F.I.T.T. Principles
EAT CLEVER strategy
START
Toolkit - Contents

• Executive summary (“the problem&solution in a nutshell”)

• Why is it time to act?
  – Facts and Figures; Risk factors; Large number of unknown cases; Complications through late diagnosis; Costs for health care system and the society; Prevention is possible: the evidence; Economic and social benefits of diabetes prevention

• How can I make a difference?
  – Prevention as joint effort; Why and how to involve societal framework partners; Practical tips for societal support; How to build up multidisciplinary prevention team; Practical tips for networking

• How to budget and finance a prevention programme
  – Realistic budget; Possible sources of income

• How to identify people at risk
  – Diabetes risk factors; Risk assessment; Care pathway for healthcare provider; Strategy and practical tips for encouraging participation in intervention activities

• How to change behaviour
  – Elements and targets of effective lifestyle intervention programmes; Supporting behaviour change; Effective communication
• Physical activity to prevent diabetes
  – Why to increase physical activity; How to encourage to increase physical activity
  – The FITT principle for training routine:
    • Frequency - Intensity - Time - Type

• Nutrition & dietary guidance to prevent diabetes
  – Long-term dietary goals (in nutrient and food intake level)
  – The EAT CLEVER principle for counselors
    • Estimation of the dietary pattern, Aims in the long and short run, Tools, guidance, and support, Composition of the diet, Lifestyle for the whole life, Energy, Variety, Evaluation, Risks

• Other behaviours to consider
  – Stress and depression; Smoking; Sleeping patterns

• Evaluation / quality assurance
  – Quality criteria; Risks and adverse effects

• Join forces to make a difference! (“positive mission statement”):
**IMAGE Toolkit**

### Screening Scores for Prevalent T2D

<table>
<thead>
<tr>
<th>Score and Source</th>
<th>Predictive Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dutch score Diabetes Care 22:213; 1999</td>
<td>Age, sex, BMI, presence of obesity, use of antihypertensive medication and family history of diabetes, physical activity</td>
</tr>
<tr>
<td>The Cambridge risk score Diabetic medicine 23:996; 2006</td>
<td>Age, sex, BMI, family history of diabetes, use of antihypertensive or steroid medication, smoking</td>
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<tr>
<td>The Danish risk score Diabetes Care 27:727-33; 2004</td>
<td>Age, sex, BMI, family history of diabetes, known hypertension, physical activity</td>
</tr>
<tr>
<td>The Finnish diabetes risk score FINDRISC <a href="http://www.diabetes.fi/english/risktest">www.diabetes.fi/english/risktest</a></td>
<td>Age, BMI, waist circumference, use of antihypertensive therapy, history of high blood glucose, physical activity, consumption of fruit, vegetables and berries, family history of diabetes</td>
</tr>
<tr>
<td>FindRISK Germany Horm Metab Res. 2009; 41:98</td>
<td>Age, BMI, waist circumference, use of blood pressure medication, history of high blood glucose</td>
</tr>
<tr>
<td>Australian risk score AUSDRISK <a href="http://www.ausdrisk.com">www.ausdrisk.com</a></td>
<td>Age, sex, ethnicity, family history of diabetes, history of high blood glucose, use of anti-hypertensive medication, current smoking status, consumption of vegetables or fruit, physical activity and waist circumference</td>
</tr>
<tr>
<td>The German diabetes risk score <a href="http://www.dife.de">www.dife.de</a></td>
<td>Age, waist circumference, height, history of hypertension, physical activity, smoking, consumption of red meat, whole-grain bread, coffee, and alcohol</td>
</tr>
<tr>
<td>The ADA risk score Diabetes Care 18:382; 1995</td>
<td>Age, sex, delivery of macrosomic infant, race, education, obesity, sedentary lifestyle, family history of diabetes</td>
</tr>
</tbody>
</table>
How to change behavior?

Required Behavior Modification for effective therapy

Importance of Convenient Therapies

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<th>Low</th>
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High

Low

Nature of Illness

Acute

Chronic

Ultimate decision-maker concerning the nature and extent of therapy
 Behaviour Change Model (Greaves et al, 2011)

Behaviour Change Techniques (Greaves et al, 2011)

Motivation

- Discuss behaviour change process (e-p-e)
- Motivational interviewing: Importance, Expectations, Self-efficacy
- Identify social supporters /their role

Action

- Summary, Make decisions
- SMART goals, action plan, coping plan (pre-empting barriers), social support plan

Maintenance

- Try out new behaviour, self-monitoring
- Revisit motivation and social support, give feedback /discuss progress, relapse management techniques, new plans

TAKE ACTION TO PREVENT DIABETES. YOU CAN DO IT NOW!
Prevention Practice

• Standard technical handbook presenting different strategies for the prevention of diabetes realized in a practice setting worldwide

• summarizing experiences and future plans over the world

• issued for the WCPD
Content of Prevention in Practice

1. Diabetes Prevention – urgent need in practice
2. Diabetes Prevention in Practice: the global panorama
3. The short history of diabetes prevention with lifestyle intervention
4. Supporting behaviour change for diabetes prevention
5. Implementation of prevention of type 2 diabetes – Experiences from Finland
6. Scaling up type 2 diabetes prevention programs. National and State interventions in Australia
7. Training facilitators of group-based diabetes prevention programs: recommendations from a public health intervention in Australia
8. Scaling Up Type 2 Diabetes Prevention Programs for High Risk Persons: Progress and Challenges in the United States
9. Implementation of the Saxon Diabetes Prevention Program in Germany
10. The Learner Becomes the Teacher: A Community-Based Diabetes Prevention Training Programme for First Nations Health Workers in Northern Canada
11. Lets Beat Diabetes – Community Partnerships in Action - New Zealand
12. Early detection and prevention of type 2 diabetes: National Programme Serbia
13. Community based diabetes prevention in Austria
14. Feasibility of Implementing the first community-based Lifestyle Intervention Programme to Prevent Type 2 Diabetes in Greece
15. Screening an Prevention of Type 2 Diabetes using Lifestyle Modifications in Spain – DE-PLAN Project Spain
16. First Diabetes Prevention Program in Bulgaria
17. DE-PLAN Project: diabetes prevention in Carpi e Pantelleria, Italy
18. The HUNT-DE-PLAN Study of Nord-Trøndelag, Norway
19. Walking Away from Type 2 Diabetes: development of a diabetes prevention programme for implementation within England
20. Towards the translation of research evidence to service provision: experience from North East England, UK
21. Diabetes-Free Bangkok
22. Prevention of Diabetes in South Asians
23. A cognitive behavioural programme aimed at lifestyle changes in people at high risk of cardiovascular diseases and type 2 diabetes in the Nederlands
24. Medical Prevention of Type 2 Diabetes – Rationale and Practice
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<td>PHC, decentralized, community</td>
<td>person at risk FINDRISK &gt;15</td>
<td>Diabetes nurses</td>
<td>1-3 sessions</td>
<td>Waist circ.</td>
<td>None</td>
<td>National programme</td>
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<td>diabetes prevention + healthy ageing</td>
<td>Yes – National Diabetes Plan</td>
<td>PHC, decentralized, occupational medicine</td>
<td>person at risk FINDRISK &gt;12</td>
<td>Occupational nurses</td>
<td>5 sessions and 1 booster session</td>
<td>anthr., biomarker, behaviour by physician</td>
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<td>PLAN4WARD, USA</td>
<td>Primary diabetes prevention</td>
<td>National Coordinating Center in Development</td>
<td>YMCA</td>
<td>ADA risk score</td>
<td>Nonspecialist staff at YMCA</td>
<td>6-month, 16-session curriculum, then monthly maintenance sessions</td>
<td>anthr., Hba1c, lipids</td>
<td>Centralized instructor training, Peer-based session checklists</td>
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<td>5 +1 sessions, Intervention facilitator</td>
<td>anthr., biomarker, behaviour</td>
<td>Yes at facilitator and program levels</td>
<td>Free for most participants aged 50 or over</td>
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<td>person at risk FINDRISK &gt;10</td>
<td>Prevention manager, different professions</td>
<td>Structured programme 8 sessions, telephone and email support and annual follow up</td>
<td>BP, waist, anthr., parallel study on OGTT</td>
<td>Blood pressure and Waist circ.</td>
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<td>Programme</td>
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<td>Greater Green Triangle DPP</td>
<td>24% dropped out between baseline and 12 month measurements</td>
<td>Changes from baseline to 12 mths, mean weight (kg) ↓2.52 BMI ↓0.93 Waist circumference (cm) ↓4.17 Fasting plasma glucose ↓0.14 Total cholesterol ↓0.29 Systolic BP ↓1.01 Diastolic BP ↓2.14</td>
<td>15 16</td>
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<td>Culturally appropriate programme for migrant female Pakistanis</td>
<td>25% dropped out between weeks 0 and 12</td>
<td>Physical activity increased from 4,000 +/- 22.6 steps to 8,617.4 +/- 596.8 Average cholesterol reduced from 6.8mmol/l +/- 0.15 to 5.5mmol/l +/- 0.10 Fasting blood glucose reduced from 6.4 +/- 0.33 to 5.9 +/- 0.33</td>
<td>17</td>
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<td></td>
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<tr>
<td>De-Plan, Greece</td>
<td>35% dropped out between baseline and 12 months</td>
<td>Weight 89.0 +/- 13.4 reduced to 88.0 +/- 4.7 BMI 32.0 +/- 4.3 reduced to 31.6 +/- 4.0 Waist circumference 102.9 +/- 11.0 cm's reduced to 102.6 +/- 10.6 cm's BP 133/79 reduced to 127/80 Fasting blood glucose 5.8 +/- 0.63 mmol/l reduced to 5.7 +/- 0.63 mmol/l Total cholesterol 5.9 +/- 0.88 mmol/l reduced to 5.5 +/- 0.95 mmol/l</td>
<td>18</td>
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<tr>
<td>GOAL - LIT</td>
<td>13% drop out between baseline and 12 months</td>
<td>Weight reduced from 90.0kg +/- 16.6 by -0.8kg +/- 4.5 BMI reduced from 32.6 +/- 5.0 by 0.3 +/- 1.6 Waist circumference reduced by 105.3cm +/- 12.3 by 1.6cm +/- 4.8 Fasting blood glucose reduced from 6.6mmol/l +/- 1.7 by 0.1mmol/l +/- 1.7 Total cholesterol reduced by 5.5mmol/l +/- 1.0 by 0.1mmol/l +/- 0.9</td>
<td>19 20</td>
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<tr>
<td>Montana Cardiovascular Disease and Diabetes Prevention Programme</td>
<td>17% drop out rate over 16 week course</td>
<td>Weight reduced from 99.3kg +/- 19.7 kg to 92.6kg +/- 18.8 BMI reduced from 35.9 +/- 6.5 to 33.5 +/- 6.3 Physical activity increased from week 6, 210 mins +/- 160 to 290 mins +/- 192 at week 16</td>
<td>21</td>
<td></td>
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<tr>
<td>The DEPLOY Pilot Study</td>
<td>37% drop out in intervention arm compared to 28% in control arm</td>
<td>Standard advice 12-14mths % change in weight ↓1.8 % change in BMI ↓1.4 Change in HbA1c 0.0 Change in total cholesterol (mg/dL) ↓11.8 Change in systolic BP (mmHg) ↓4.7 Group DPP 12-14mths % change in weight ↓6.0 % change in BMI ↓6.7 Change in HbA1c ↓0.1 Change in total cholesterol (mg/dL) ↓13.5 Change in systolic BP (mmHg) ↓1.6</td>
<td>22</td>
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</tbody>
</table>
Prevention of Diabetes Self-Management Program (PREDIAS): Effects on Weight, Metabolic Risk Factors, and Behavioral Outcomes

Bernhard Kulzer, MD
Norbert Hermanns, MD
Daniela Gorges, MA

Peter Schwarz, MD
Thomas Haak, MD

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>PREDIAS</th>
<th>Between-group P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BMI (kg/m²)</strong></td>
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<tr>
<td>Baseline</td>
<td>32.0 ± 5.7</td>
<td>31.0 ± 4.7</td>
<td></td>
</tr>
<tr>
<td>Endpoint</td>
<td>31.3 ± 5.8</td>
<td>29.7 ± 4.7</td>
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</tr>
<tr>
<td>Change from baseline to endpoint</td>
<td>−0.3 ± 1.3 (P = 0.002)*</td>
<td>−1.3 ± 1.7 (P &lt; 0.001)*</td>
<td>0.002</td>
</tr>
<tr>
<td><strong>Weight (kg)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>93.6 ± 19.3</td>
<td>92.1 ± 19.6</td>
<td></td>
</tr>
<tr>
<td>Endpoint</td>
<td>92.2 ± 19.4</td>
<td>88.3 ± 15.9</td>
<td></td>
</tr>
<tr>
<td>Change from baseline to endpoint</td>
<td>−1.4 ± 4.0 (P = 0.002)*</td>
<td>−3.8 ± 5.2 (P &lt; 0.001)*</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Waist circumference (cm)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>106.3 ± 13.7</td>
<td>106.8 ± 13.7</td>
<td></td>
</tr>
<tr>
<td>Endpoint</td>
<td>105.9 ± 14.1</td>
<td>102.7 ± 12.5</td>
<td></td>
</tr>
<tr>
<td>Change from baseline to endpoint</td>
<td>−0.4 ± 6.2 (P = 0.559)*</td>
<td>−4.1 ± 6.0 (P &lt; 0.001)*</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>Fasting glucose (mg/dl)</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>105.5 ± 12.4</td>
<td>105.7 ± 12.4</td>
<td></td>
</tr>
<tr>
<td>Endpoint</td>
<td>107.3 ± 14.3</td>
<td>101.4 ± 11.3</td>
<td></td>
</tr>
<tr>
<td>Change from baseline to endpoint</td>
<td>1.8 ± 13.1 (P = 0.211)*</td>
<td>−4.3 ± 11.3 (P = 0.001)*</td>
<td>0.001</td>
</tr>
<tr>
<td><strong>2-h postprandial OGTT (mg/dl)</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>138.5 ± 34.9</td>
<td>133.1 ± 36.2</td>
<td></td>
</tr>
<tr>
<td>Endpoint</td>
<td>130.3 ± 36.1</td>
<td>125.8 ± 41.3</td>
<td></td>
</tr>
<tr>
<td>Change from baseline to endpoint</td>
<td>−8.2 ± 36.9 (P = 0.060)*</td>
<td>−7.3 ± 30.8 (P = 0.041)*</td>
<td>0.865</td>
</tr>
</tbody>
</table>
Common features of successful prevention trials

- Diet composition:
  - Saturated and trans fat ↓
  - Unsaturated fat ↑
  - Whole grains and fibre ↑
  - Refined grains and sugar ↓
  - Lots of vegetables and fruit
  - Energy density ↓
  - Culturally adjusted

- Frequent contacts with the intervention personnel

- Empowering:
  - Motivational interviewing
  - Self-monitoring (food diaries, measuring body weight)
  - Individualised lifestyle goals and their monitoring

- Physical activity at least 2,5 h per week
  - All exercise (aerobic, muscle strengthening) is beneficial
  - Most effective risk reduction was achieved with at least moderately strenuous exercise

- Weight reduction (if overweight)
  - Moderate sustained weight loss (5-10%) lowers the risk
Implementation into practice

Occupational Health care

- Structured program
- Risk adjusted
- Quality management
- Structured intervention material
- Individual empowerment
- Physical activity as basis
- Self management as concept
- Reevaluation as outcome
Take Action to prevent Diabetes

A curriculum for Prevention managers for the prevention of type 2 diabetes
Tasks of the Prevention Manager (PM)

Management:
Communication with other players (diab. prevention and society), networks
Motivation and recruitment of participants (persons at high risk)
Organization of the programme (time line, dates, places, coworkers*, reimbursement, ...)
Evaluation

Counselling and Training:
Behaviour change & Motivation
Lifestyle I – specific aspects of nutrition*
Lifestyle II – specific aspects of physical activity*

*) in some countries the prevention manager will establish a „diabetes prevention team“ assuring to integrate experienced experts of the respective prevention areas
Structure of the Training Curriculum PM\textsuperscript{T2Dm}

The Training Curriculum PM\textsuperscript{T2Dm} includes 8 modules (7x face-to-face plus 1x project report)

**Module 1:** Problem, Evidence, and Tasks

**Module 2:** Course Organization, Recruitment, Networking, Evaluation Management

**Modules 3 & 5:** Behaviour Change I (Motivation) and Behaviour Change (II) (Action and Maintenance)

**Module 4:** Specific Aspects of Physical Activity in Diabetes Prevention

**Module 6:** Specific Aspects of Nutrition in Diabetes Prevention

**Modules 7 & 8:** Longitudinal Project Report/Presentation of the Report
Overall Structure of the PM Training

Pre-course assignment
- assisted self-studies
- Commented study material
- Entrance examination

Face-to-face part
- 7-8 training modules
- skills training
- intermediate tests
- interactive program development

Post-course supervision
- IMAGE e-learning platform
- 1 year supervision to implement prevention program

PM alumni network
- local national and international exchange of know how
- Quality management
Stepwise approach from basic science to Public Health Implementation

**Molecular/physiological**
- Ideal settings
- Supply
- Biggest effect on most people

**Real world settings**
- Diffusion of interventions
- Policy

**AVAILABILITY**

**EFFICIENCY**

**DISTRIBUTION**
Prevention of Type 2 Diabetes  The Community – Clinic Partnership Model

- Community
  - Insurers
  - Employers
  - Informed Population
  - Strong Community Organizations
  - Healthy Public Policy
  - Supportive Environments

- Clinic
  - Proactive Practice Team
  - Decision Support
  - Information Systems
  - Informed, Activated Patients

- Partnership Zone
  - Reimbursement
  - Screening for High Risk
  - Diagnosis of Prediabetes
  - Structured Lifestyle Programs
  - Regular Glucose Monitoring

Total Population → Pre-diabetes → Diabetes → Complications

Healthy Public Policy

Supportive Environments
### NICE PUBLIC HEALTH PROGRAMME GUIDANCE

17.5.2011 in Manchester

<table>
<thead>
<tr>
<th>Personal</th>
<th>Easy to understand intervention material (minorities, social groups)</th>
<th>Easy healthy food choices in daily life</th>
<th>Personal feedback about progress</th>
<th>MY benefit from prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention structures</td>
<td>Management structures for intervention programs</td>
<td>Targeted intervention in high risk groups</td>
<td>Quality management intervention</td>
<td>Physician education</td>
</tr>
<tr>
<td>Community</td>
<td>Guidelines for diabetes prevention EB and practice</td>
<td>Community screening programs</td>
<td>Work site risk reduction small and big business</td>
<td>Intervention manager education</td>
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<tr>
<td>State</td>
<td>National Diabetes Plan</td>
<td>National Health insurance (reimbursement)</td>
<td>Tax incentive in private sector for screening</td>
<td>City planning (reimbursement)</td>
</tr>
</tbody>
</table>

NICE PUBLIC HEALTH PROGRAMME GUIDANCE
17.5.2011 in Manchester

- National Health insurance (reimbursement)
- National Diabetes Plan
- Tax incentive in private sector for screening
- City planning (reimbursement)
- Environmental programs for exercise
- Health lifestyle education at school

- Easy to understand intervention material (minorities, social groups)
- Management structures for intervention programs
- Community screening programs
- Guidelines for diabetes prevention EB and practice
- Work site risk reduction small and big business
- Intervention manager education
- Community based primary prevention programs

- Easy healthy food choices in daily life
- Targeted intervention in high risk groups
- Quality management intervention
- Physician education

- Personal feedback about progress
- Secondary prevention programs

- My benefit from prevention

Challenge Implementation

1. Evidence for diabetes prevention (guideline)
2. Evidence for diabetes prevention Practice (Implementation trial, Experience, practice guidelines)
3. Political support (Diabetes plan, Prevention plan, Educational activities, .....)
4. Partners at different levels of care (stakeholder involvement, multidisciplinary team, ....)
5. Adequate intervention concepts and material (Exchange with others, know how transfer, networking, ........)
6. Training of the trainer (license, reimbursement, work plan prevention)
7. Quality management in the process (comparable QM, benchmarking)
8. Business plan prevention including high risk and public health approach
Principles Considered in Developing the National Diabetes Prevention Program

Diabetes risk must match program cost
Program must be effective
Program must be economically sustainable
Program must be available
What is the situation today?

VPC
The Virtual Prevention Center
VPC
The Virtual Prevention Center
<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
<th>Type</th>
<th>Country</th>
<th>Rating</th>
<th>Actions</th>
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<tbody>
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<td>FINDRISK Chinese</td>
<td>The Finnish Diabetes Risk Score (FINDRISC) questionnaire is a practical screening tool to estimate the diabetes risk and the proba...</td>
<td>published</td>
<td>Screening material</td>
<td>3</td>
<td>CH, Email, Print, Delete</td>
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<tr>
<td>FINDRISK Greece</td>
<td>The Finnish Diabetes Risk Score (FINDRISC) questionnaire is a practical screening tool to estimate the diabetes risk and the proba...</td>
<td>published</td>
<td>Screening material</td>
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<tr>
<td>FINDRISK Turkish</td>
<td>The Finnish Diabetes Risk Score (FINDRISC) questionnaire is a practical screening tool to estimate the diabetes risk and the proba...</td>
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<td>The IMAGE Toolkit “Take Action to Prevent Diabetes”</td>
<td>The IMAGE Toolkit “Take Action to Prevent Diabetes” - A Toolkit for the prevention of type 2 diabetes The IMAGE Tool...</td>
<td>published</td>
<td>Practice guidelines</td>
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<td>UK, Email, Print, Delete</td>
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<tr>
<td>Book - Diabetes Prevention in Practice</td>
<td>Diabetes prevention in practice: The best example to learn how to build up a prevention program is to learn from others who alread...</td>
<td>published</td>
<td>Scientific information</td>
<td>2</td>
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<tr>
<td>IMAGE report on quality indicators for diabetes prevention</td>
<td>This report was created by the European IMAGE project and presents the European standards for the assessment of the occurrence of type 2 diabetes and its known ...</td>
<td>published</td>
<td>Practice guidelines</td>
<td>1</td>
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<td>published</td>
<td>Practice guidelines</td>
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<td>Pre-assessment IMAGE-Curriculum</td>
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</table>
Quality management in the virtual center
Do you think that Diabetes Prevention is important?

Worldwide network of people active in Prevention of Diabetes

www.active-in-diabetes-prevention.com

Info@activeindianabetesprevention.com
Number of users in the network „Active in diabetes prevention“

1 month after start - 338

- north america: 21
- south america: 10
- europe: 263
- africa: 14
- asia: 24
- australia: 6
Number of users in the network „Active in diabetes prevention“

2 months after start - 1085

north america: 247
africa: 49

south america: 60
asia: 102

europe: 583
australia: 44
Number of users in the network „Active in diabetes prevention“

6 months after start - 2016 user

north america: 470
africa: 76

south america: 101
asia: 235

europe: 1063
australia: 71
### Users per Country in the Network “Active in Diabetes Prevention”

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Members</th>
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<tbody>
<tr>
<td>1</td>
<td>GER</td>
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<tr>
<td>2</td>
<td>CD</td>
<td>328</td>
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<tr>
<td>3</td>
<td>USA</td>
<td>321</td>
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<tr>
<td>4</td>
<td>FIN</td>
<td>148</td>
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<td>5</td>
<td>UK</td>
<td>143</td>
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<tr>
<td>6</td>
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<td>7</td>
<td>AUS</td>
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<tr>
<td>19</td>
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<td>32</td>
</tr>
<tr>
<td>20</td>
<td>AU</td>
<td>29</td>
</tr>
</tbody>
</table>

- **North America:** 681
- **South America:** 135
- **Europe:** 1444
- **Asia:** 415
- **Australia:** 111

Today - 3688 users

Visit [www.activeindiabetesprevention.com](http://www.activeindiabetesprevention.com)
Distribution of members in the network „Active in diabetes prevention“

www.activeindiabetesprevention.com
Network –

who are active in
diabetes prevention

**Number of users in the network „Active in diabetes prevention“**

*Today - 3107 user*

[www.activeindiabetesprevention.com](http://www.activeindiabetesprevention.com)