

# **University Hospital Carl Gustav Carus Dresden**



# The European Experience Challenges for Implementation

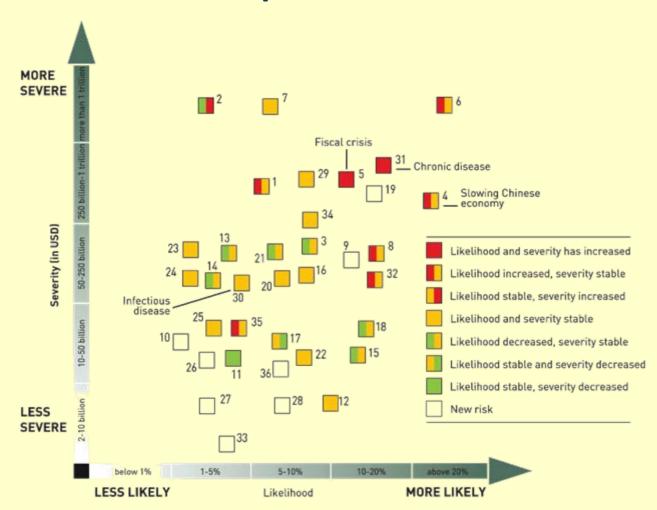
**Prof. Peter Schwarz** 

Department for Prevention and Care
University Hospital "Carl Gustav Carus" Dresden





#### **Global Development**



Source: World Economic Forum 20091

#### **ECONOMIC**

- Food price volatility
- Oil and gas price spike
- Major fall in USD
- Slowing Chinese economy (6%)
- Fiscal crises
- Asset price collapse
- Retrenchment from globalization (developed)
- Retrenchment from globalization (emerging)
- Regulation cost
- Underinvestment in infrastructure

#### GEOPOLITICAL

- International terrorism
- Collapse of NPT
- US/Iran conflict
- US/DPRK conflict
- Afghanistan instability
- Transnational crime and corruption
- Israel-Palestine conflict
- Violence in Iraq
- Global governance gaps

#### ENVIRONMENTAL

- Extreme climate change related weather
- Droughts and desertification
- Loss of freshwater
- NatCat: Cyclone
- NatCat: Earthquake
- NatCat: Inland flooding
- NatCat: Coastal flooding
- Air pellution
- **Biodiversity loss**

#### SOCIETAL

- Pandemic
- Infectious disease
  - Chronic disease: heart disease, stroke, cancer, chronic respiratory disease and diabetes
- Liability regimes
- Migration

#### **TECHNOLOGICAL**

- CII breakdown
- Emergence of nanotechnology risks
- Data fraud/loss



## **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



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

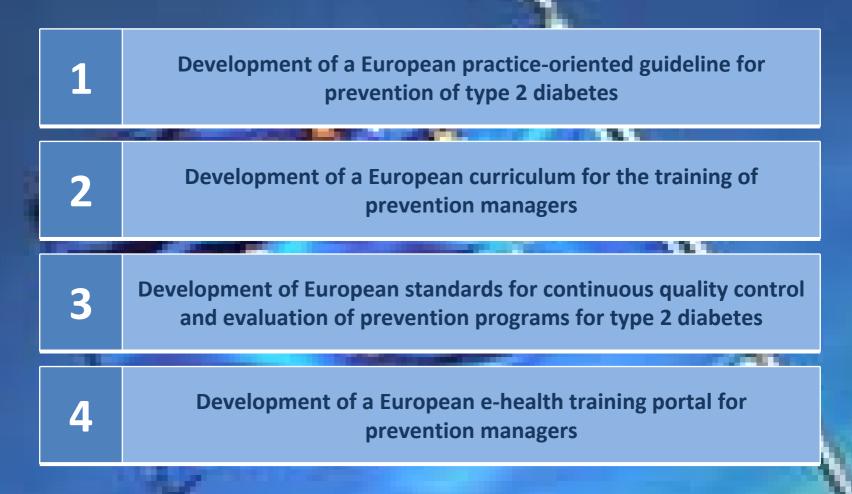
## How to get it to practice



## Developing a prevention strategy

- -beersteureduredy-toeastyrtarunderstand
- 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



=> European standards applicable in all member states will help to reduce inequalities in health

# The IMAGE project – Partners involved









#### We need

# Plan Concept Action



## Plan

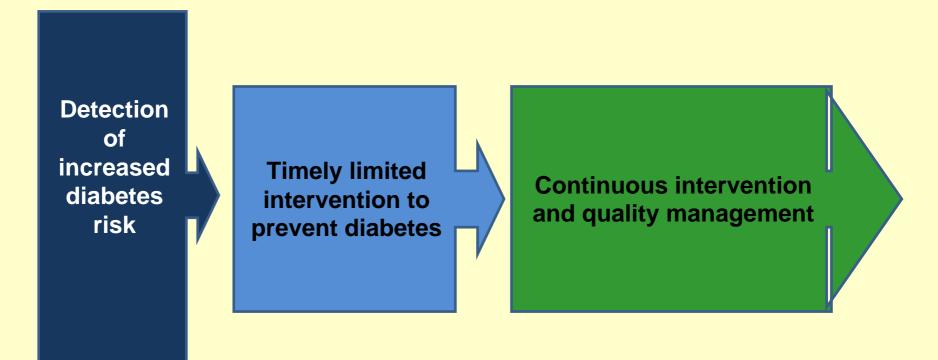
## Development of an Global Action Plan Diabetes Prevention

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





## Action

## **Take Action to prevent Diabetes**

A toolkit for the prevention of type 2 diabetes



## Take Action to Prevent Diabetes - The IMAGE Toolkit for the Prevention of Type 2 Diabetes in Europe

Affiliations

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s. Hormstein, L. Frenthings, C. Frenthie, J. Frenthie, J. Frenthins, F. Johnson, F. Johnson, A. Sandard, R. Salvarde, R. S Lin, Lee-Barrey, S. Latts, J. Lindbroth, K. Marrians, L. McChoole, M. Mocke, A. C. Mesquita, U. Melna, E. Noyle, A. N. A. C. Pakka, P. Pajaron, S. Pauli-cher, M. Peltonen, L. Permond, A. Pfeffer, A. Pólónen, S. Pahl, F. Raposo, T. Reineb, P. Rissanen, C. Robbison, M. Roder, U. Rothe, T. Sanisto, J. Scholl, P. E. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. E. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. L. Schwarz, K. E. Shep pard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, K. E. Sheppard, S. Spier, N. Tassisto, J. Scholl, P. Schwarz, R. Schwa B. Stratmann, J. Stendood, Z. Stybinski, T. Tarkova, V. Telle-Hjelset, C. Teny, D. Tolle, F. Tool, J. Spers, F. Stemper, C. Valadas, P. Valensi, D. Vellodene, P. Varmunt, R. Wess, J. Wens, T. Vilmar.

The affiliations are listed at the end of the article

Executive Summary

When we ask people what they value most, health is usually top of the list. While effective care is available for many chronic diseases, the fact remains that for the patient, the tax payer and the whole of society: Prevention is Better

Diabetes and its complications are a serious threat to the survival and well-being of an increasing number of people. It is predicted that one in ten Europeans aged 20-79 will have developed diabetes by 2030. Once a disease of old age, diabetes is now common among adults of all ages and is beginning to affect adolescents and even children. Diabetes accounts for up to 18% of total health-

care expenditure in Europe. The Good News is That Diabetes is Preventable. Compelling evidence shows that the onset of diabetes can be prevented or delayed greatly in individuals at high risk (people with impaired glucose regulation). Clinical research has shown a reduction in risk of developing diabetes of over 50% following relatively modest changes in lifestyle that include adopting a healthy diet, increasing physi-

cal activity, and maintaining a healthy body weight. These results have since been reproduced in real-world prevention programmes. Even a delay of a few years in the progression to diabetes is expected to reduce diabetes-related complications, such as heart, kidney and eye disease and, consequently, to reduce the cost to society.

A comprehensive approach to diabetes prevention should combine population based primary prevention with programmes targeted at those who are at high risk. This approach should take account of the local circumstances and diversity within modern society (e.g. social inequalities). The challenge goes beyond the healthcare system. We need to encourage collaboration across many different sectors; education providers, non-governmental organisations, the food industry, the media, urban planners and politicians all have a very important role to play.

Small Changes in Lifestyle Will Bring Big Changes in Health Through Joint Efforts, More People Will be Reached.

The Time to Act is Now.

Abbreviations

Finnish Diabetes Prevention Study FINDRISC: Finnish Diabetes Risk Score Impaired fasting glucose IGT: Impaired glucose tolerance

Oral glucose tolerance test T2DM: Type 2 diabetes mellitus

Why is it Time to Act?

The alarming epidemic In Europe, around 55 million adults have diabe-

▶ By 2030, this figure is estimated to rise to 66

**TAKE ACTION** TO PREVENT DIABETES

A toolkit for the prevention of type 2 diabetes in Europe

> Bibliography DOI http://dx.doi.org/ 10.1055/5-0029-1240975 Horm Metab Res 2010;42 (Suppl. 1): \$37-\$55 © Georg Thieme Verlag KG Stuttgart New York - ISSN 0018-5043

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Improving Diabetes Prevention







#### **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"):



## How to change behavior?

**Importance of Convenient Therapies** 

Required Behavior Modification for effective therapy

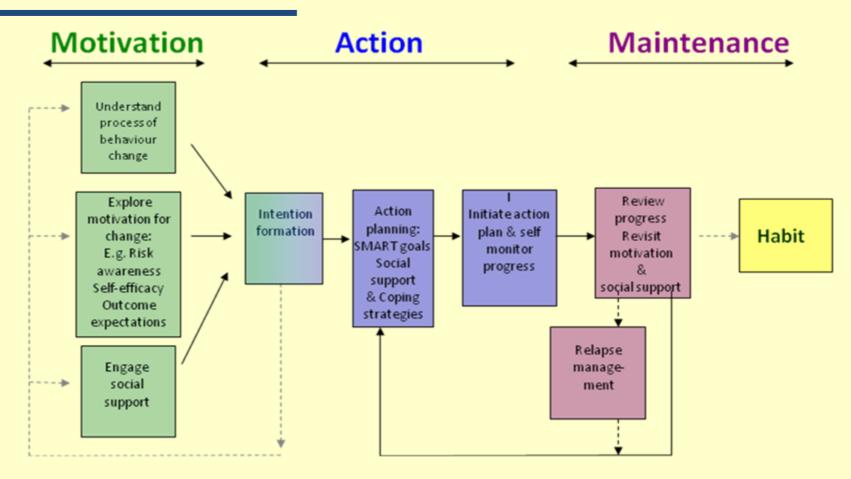
	mportanio or controller incluipios						
	Low	High					
High		Diabetes Obesity	Consumer				
		Cardiovascular Disease	mer				
Low	Cancer Infections	Hypertension  Asthma Osteoporosis Depression	Physician				
	Acute	Chronic					

Ultimate decisionmaker concerning the nature and extent of therapy

**Nature of Illness** 



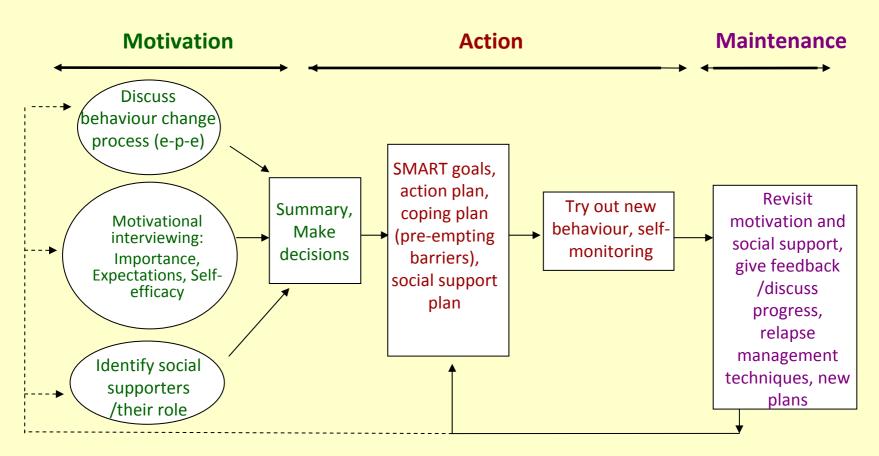
#### Behaviour Change Model (Greaves et al, 2011)



Greaves CJ et al. BMC Public Health. 2011 Feb 18;11(1):119.



#### Behaviour Change Techniques (Greaves et al, 2011)



Greaves CJ et al. BMC Public Health. 2011 Feb 18;11(1):119.



## TAKE ACTION TO PREVENT

# DIABETES. YOU <u>CAN</u> DO IT NOW!



## **Take Action to prevent Diabetes**

A curriculum for Prevention managers for the prevention of type 2 diabetes





## Why an Prevention manager

- Large companies negotiating capitation cohorts -
- Industry become disease management partner -/+
- Economic pressure in diabetes care -
- Network structures in diabetes care +
- Intensive try to establish patients liaisons -/+
- Pay for performance and quality reimbursement +
- More responsibilities for nurses in diabetes +

## Prevention manager =

## quality in intervention



#### **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 <u>team</u>" assuring to integrate experienced experts of the respective prevention areas



#### **Overall Structure of the PM Training**

<u>Pre-course assignment</u>: supported by the e-learning platform (WP 7) about 4 weeks before the face-to-face-part the participants have to work on preparytory texts, book chapters, ...

#### Face-to-face part of the PM-training (training course)

- Presentation of basic information to the participants (e.g. lecture)
- Group work (2 participants each): key questions of the respective module from every day practice have to be answered and prepared for the
- Presentation of group results

<u>Post-course assignments</u>: Transfer of results to own local prevention activities: documented organization and evaluated commence of the prevention programme (supported by the e-learning platform



## Overall Structure: <u>Duration / time line of the Training Curriculum PM<sup>T2Dm</sup></u>

7 training units (one day/8 hours each; total: about 55 to 60 hours)

**Longitudinal project report** with respect to local course organization and implementation for the respective target groups (min. workload of 40 hours)

**Pre- and post-course assignments** supported by the IMAGE e-learning platform (min. workload of 60 hours)

Overall course timespan: about 6 months

Regional or national alumni networks for subsequent quality assurance



#### Structure of the Training Curriculum PM<sup>T2Dm</sup>

The Training Curriculum PM<sup>T2Dm</sup> 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

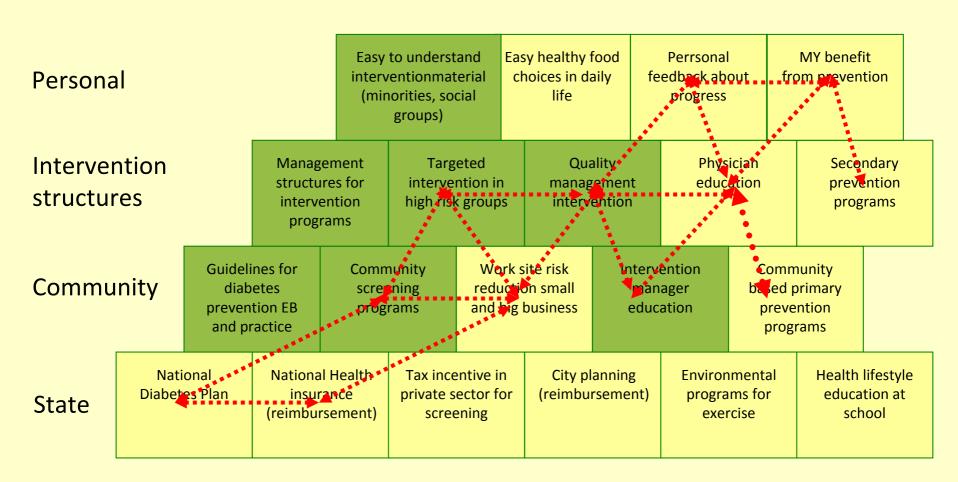
Module 6: Specific Aspects of Nutrition in Diabetes Prevention

Modules 7 & 8: Longitudinal Project Report/Presentation of the Report



Personal			Easy to understand intervention material (minorities, social groups)		Easy healthy food choices in daily life		Perrsonal feedback about progress		MY benefit from prevention				
Intervention structures		Manage structu interve progr	es for intervention in high risk groups		ntion in	Quality management intervention		Physician education		Secondary prevention programs			
Community		Guideli diab preven and pr	etes tion EB	Community screening programs		reduc	Work site risk reduction small and big business		Intervention manager education		Community ased primary prevention programs		
State		onal es Plan	National insura (reimbur	ance	private s	entive in ector for ening		City planning (reimbursement)		Environmental programs for exercise		Health lifestyle education at school	







#### How can we.....

- Bring people together who are interested or active in the prevention of diabetes
- Increase the understanding for difficulties and barriers while the implementation of prevention programs
- Increase the ability for the development of successful programs for diabetes prevention in public health
- Enable the primary prevention of diabetes in practice

Directory - who is active in diabetes prevention

# Do you think that Diabetes Prevention is important?

Worldwide network of people active in Prevention of Diabetes

www.active-in-diabetes-prevention.com

Info@activeindiabetesprevention.com

# Number of users in the network "Active in diabetes prevention" 1 month after start - 338



north america: 21

africa: 14

south america: 10

asia: 24

europe: 263

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

of users in the network "Active in diabetes prevention"

of users in the network "Active in diabetes prevention"

Today - 3688 user

string the network shows the string of the network shows the

Country ranking

CD

FIN

SP

IND

10 POR

11 NIG

12 NET

13 VEN

14 SWE

15 PAK

16 PHI

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20

SWI

29

RANK

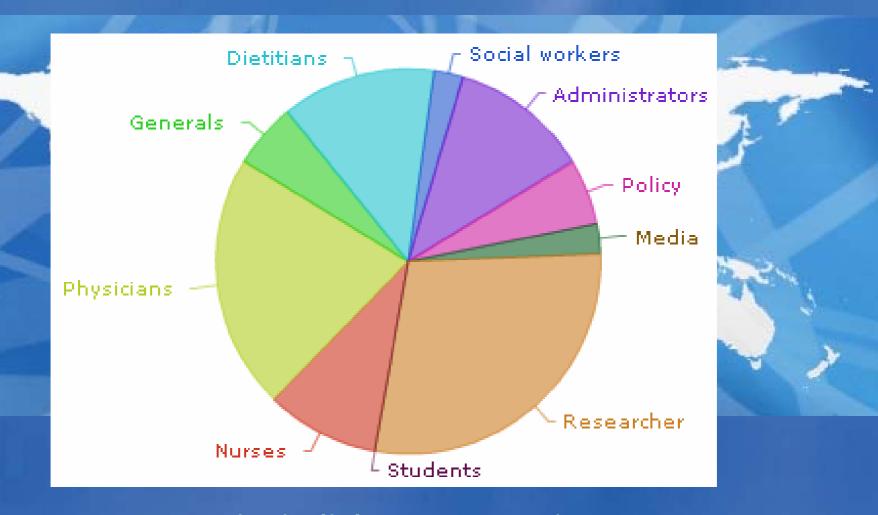
COUNTRY

328

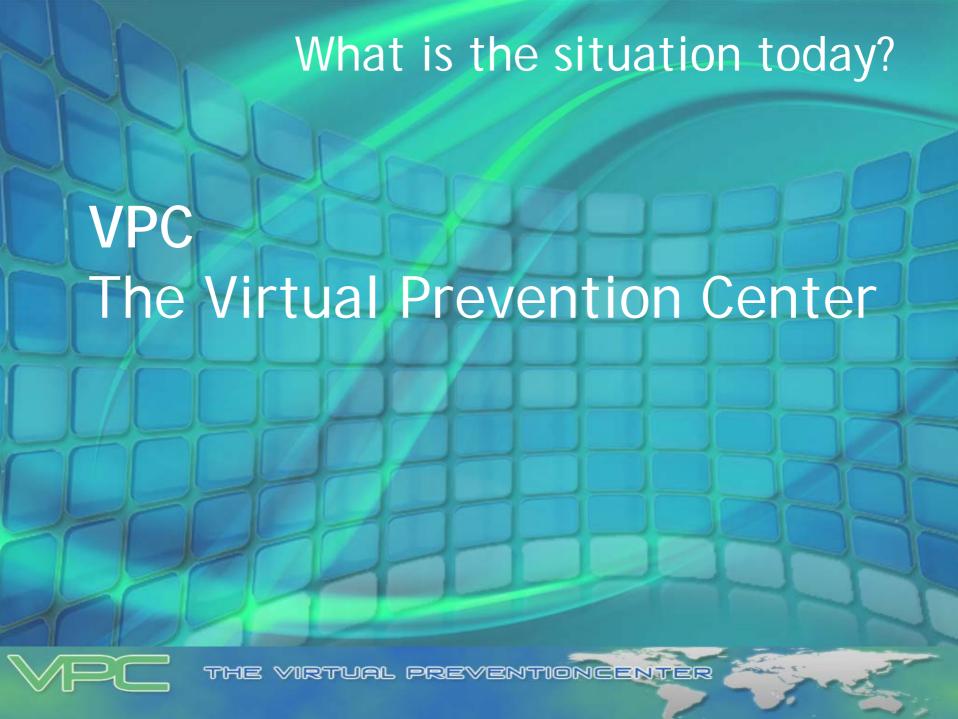


merica: 681 — south america: 135 — europe: 1444 130 — **www.astiveindiabetespreyention**1**¢om** 32

# Distribution of members in the network "Active in diabetes prevention"



www.activeindiabetesprevention.com























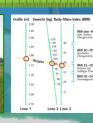














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#### 17 documents found. Sort by: ranking FINDRISK Chinese The Finnish Diabetes Risk Score (FINDRISC) published Screening material 3 🗙 🗙 🖈 CH 🖂 👂 questionnaire is a practical screening tool to estimate the diabetes risk and the proba... FINDRISC Greece The Finnish Diabetes Risk Score (FINDRISC) 🖈 🖈 GRC 🖂 👂 🣝 🙀 questionnaire is a practical screening tool to published Screening material estimate the diabetes risk and the proba... FINDRISC Turkish The Finnish Diabetes Risk Score (FINDRISC) questionnaire is a practical screening tool to published Screening material estimate the diabetes risk and the proba... The IMAGE Toolkit "Take Action to Prevent Diabetes" The IMAGE Toolkit "Take Action to Prevent published Practice guidelines Diabetes" - A Toolkit for the prevention of type 2 diabetes The IMAGE Toolk... Book - Diabetes Prevention in Practice Diabetes prevention in practice The best published Scientific information example to learn how to build up a prevention program is to learn from others who alread... IMAGE report on quality indicators for diabetes prevention This report was created by the European published Practice guidelines



#### IMAGE report on quality indicators for diabetes prevention

This report was created by the European IMAGE project and Practice guidelines presents the European standards for the assessment of the occurrence of type 2 diabetes and its known ...

Dra-accassment IMAGE-Curriculum







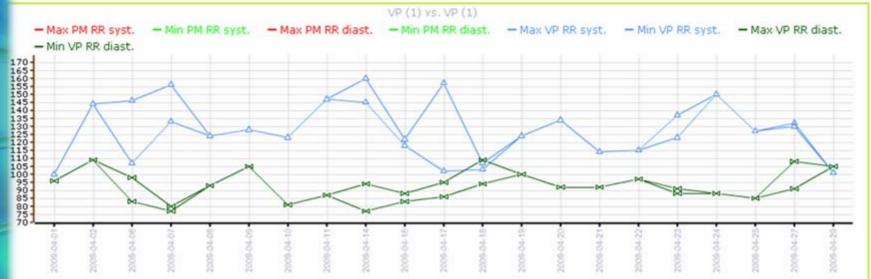
## Quality management in the virtual center

#### Netzwerk für Qualitätsmanagement

Informationen Kontakt VP-Auswertung Patienten-Auswertung



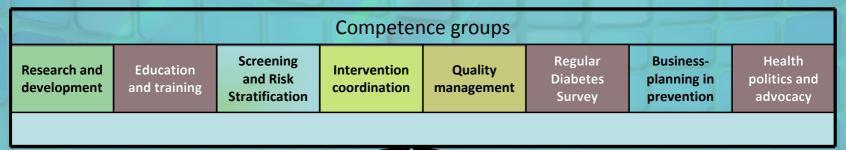
#### VERTRAGSPARTNER-AUSWERTUNG LOGIN: MANAGEMENT, AOK Klicken Sie hier, um eine Übersicht über die Patientenzahl pro Auswahl Vertragspartner 1 Auswahl Vertragspartner 2 Vertragspartner zu erhalten ODER wählen Sie aus den beiden Demo0, VP0 (Leipzig) Demo0, VP0 (Leipzig) Auswahllisten jeweils einen oder mehrere Vertragspartner aus, die Demo1, VP1 (Leipzig) Demo1, VP1 (Leipzig) sie miteinander vergleichen möchten. Demo10, VP10 (Leipzig) Demo10, VP10 (Leipzig) VP-Auswertung

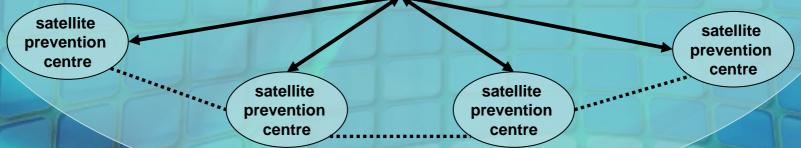






# **European Diabetes Prevention Network**Virtual Prevention Centre





THE BRITISH JOURNAL OF

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JULY/AUGUST 2011

SPECIAL ISSUE ON DIABETES PREVENTION

VOLUME 11 ISSUE 4

**DIABETES PREVENTION** 

**Guest Editor Peter Schwarz University of Dresden** 



themed issue July/Aug 2011

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5. DE-PLAN m 5.4.2011 in Ma

### Network -

who are active in

diabetes prevention

Number of users in the network "Active in diabetes prevention"

Today - 3107 user



Network - who is active in diabetes prevention

o Register Login Par

Welcome to the Network of Diabetes Prevention

Invitation letter

Our aims

lere you can find useful information about diabetes revention. Furthermore this board should be used as a communication platform between all those interested on liabetes convention worldwide.



"Between the topics of interest in our Teenagers Education Programs, sport and eating habits are discussed as way to prevent diseases." Matthias Labiach – Dreaden, Germany, Reg-No: 00011

urrently we have 3074 registered users from 134 countries.



World directory for people active in the prevention of diabetes - Register Today!

Our aim is to bring people world wide together interested in diabetes prevention. We invite everyone we is active in the prevention of diabetes and chronic diseases - medical professionals but also lay-people politicians, administrators, public health specialists, health care providers and many, many others become a partner in the network.

We would like to establish an online world directory for "people active in diabetes prevention" to conne individuals who are interested and active in the field of prevention of diabetes mellitus. This should help to

- build up a network of people being active in the prevention of diabetes worldwide
- exchange information and experiences leading to successful implementation of prevention programs

With this network we would like to build a climate of understanding of success but also difficulties in the process of implementation.

If you are interested please go ahead and register with your name and Email address today. Step by ste we would like to extend the information based on your inputs and responses.

Join the network "people active in diabetes prevention" and make the prevention of diabetes mellit become reality.

Prof. Peter Schwarz - Dresden, German

Diabetes Prevention Forum

www.activeindiabetesprevention.com