

Cultural Adaptation in Chronic Condition Management

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Why Attend ?

- Evaluate the influence of cultural adaptation of disease management programs as an essential way to guarantee clinical and cost effectiveness

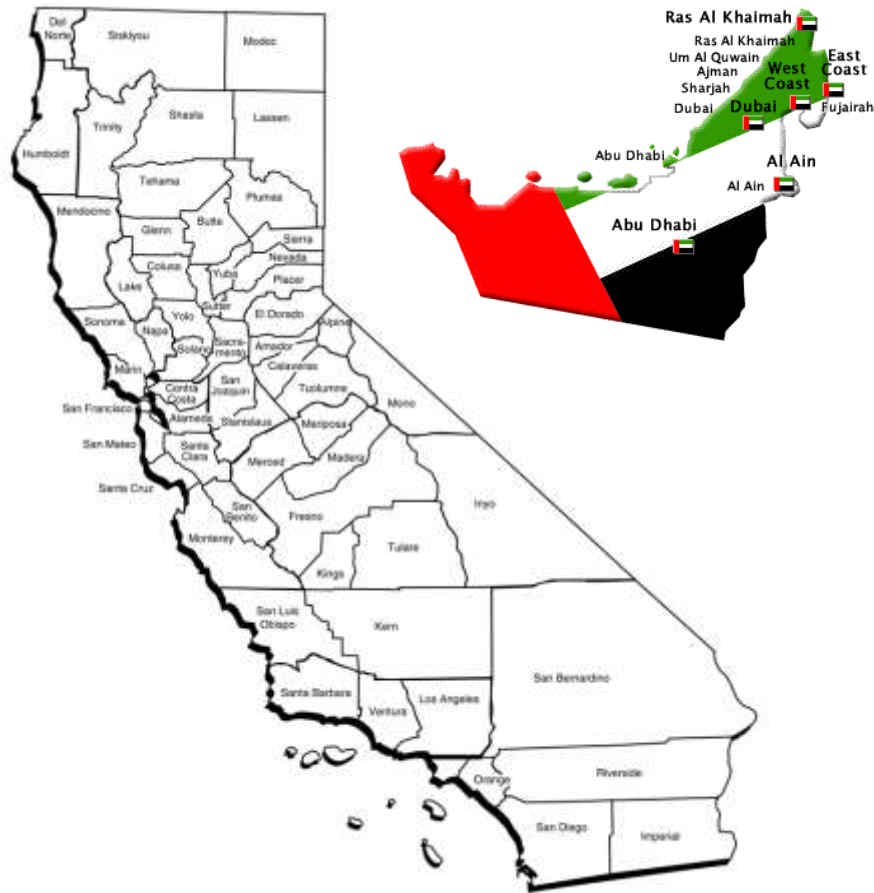
Agenda

- **Introduction**
 - UAE & Abu Dhabi (demographics)
 - General health information
 - Introduction to the healthcare system
 - Culture
 - Challenges
 - The original coaching concept
- **Objectives**
 - Disease management model
 - Adaptations , why?
 - Effectiveness
- **Summary**
 - Does it work?

UAE



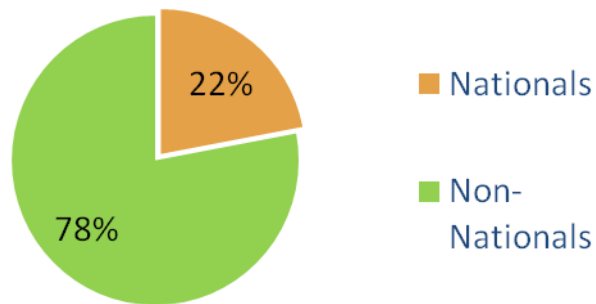
Abu Dhabi



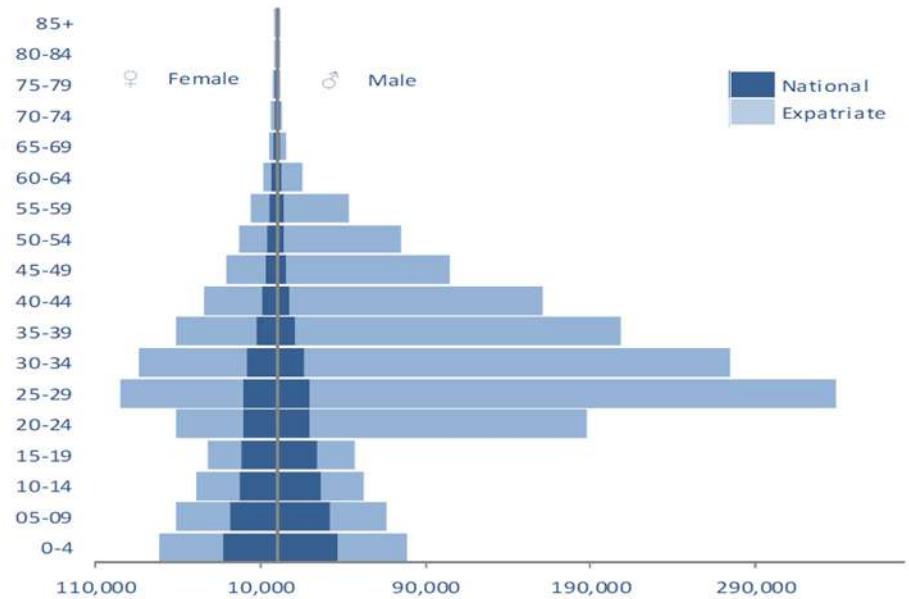
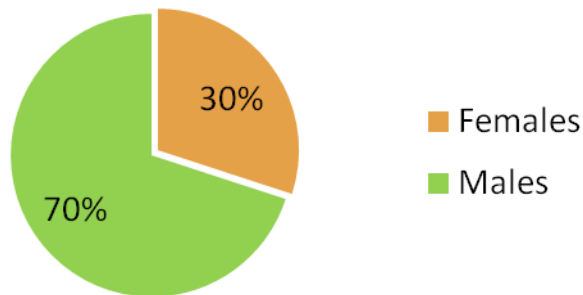
- Area: 83,600 sq km (32,300 sq mi)
- Abu-Dhabi
- Population:1,967,659

Abu Dhabi Population

Nationalities



Gender



The age peak is in the range of 25 to 35 with more than 70% of multicultural background non nationals .

General Health information:

Life expectancy at birth, male (2009)	73.5 years
Life expectancy at birth, female (2009)	77.1 years
Birth rate / 1,000 population (2010)	10.5
Death rate / 1,000 population (2010)	1.0

Main cause of death 2010 (per 100,000)

CVD	27%
Injuries	19%
Neoplasm	16%
Endocrine and Nutritional	7%
Congenital Malformations	5%

The population's average life expectancy is 75 years , characterized by a high birth rate . CVD is the main cause of death

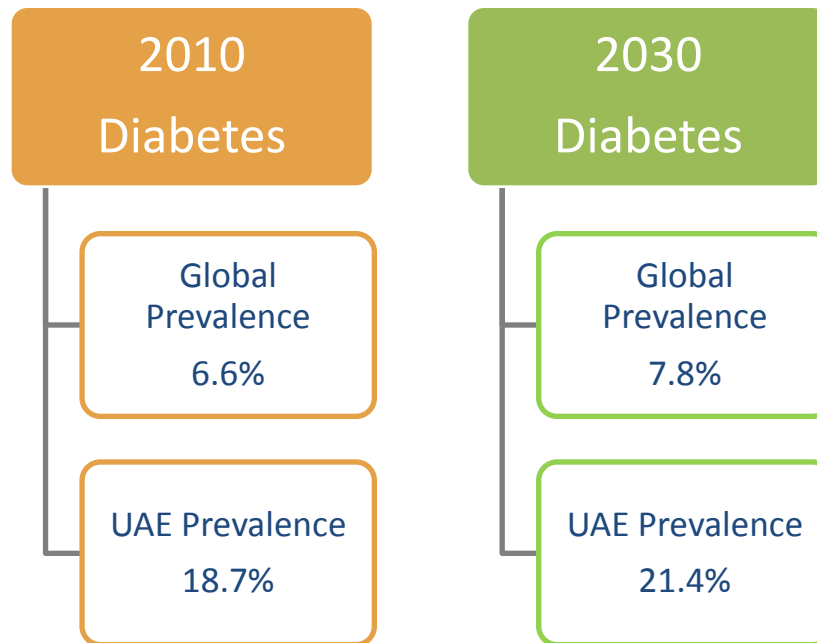
Introduction to the healthcare system in Abu Dhabi

- **Strong regulator:**
 - Health Authority Abu Dhabi (HAAD)
 - Private and governmental providers
- **35 Insurance companies**
 - Only **2** monoline Health Insurance Companies
- **Mandatory health insurance since 2006/2007**
 - 100% paid by employer (Sponsor)
- **Daman – National Health Insurance Company** Product lines:
 - Basic
 - Enhanced
 - Thiqa(TPA)

Facilities and Staff	Count
Hospitals	19 (33 in UAE)
Centers	77
Clinics	168
Pharmacies	258
Physicians	4,757
Nurses	8,221
Beds	3,579
Bed/1,000 population	1.9

Global /UAE Prevalence of Diabetes 2000/2030

UAE has the 2nd highest prevalence of diabetes worldwide.
Overweight and obesity is also a major problem with a prevalence over 65%



Abu Dhabi 1960 / 2006



Within the last 40 years

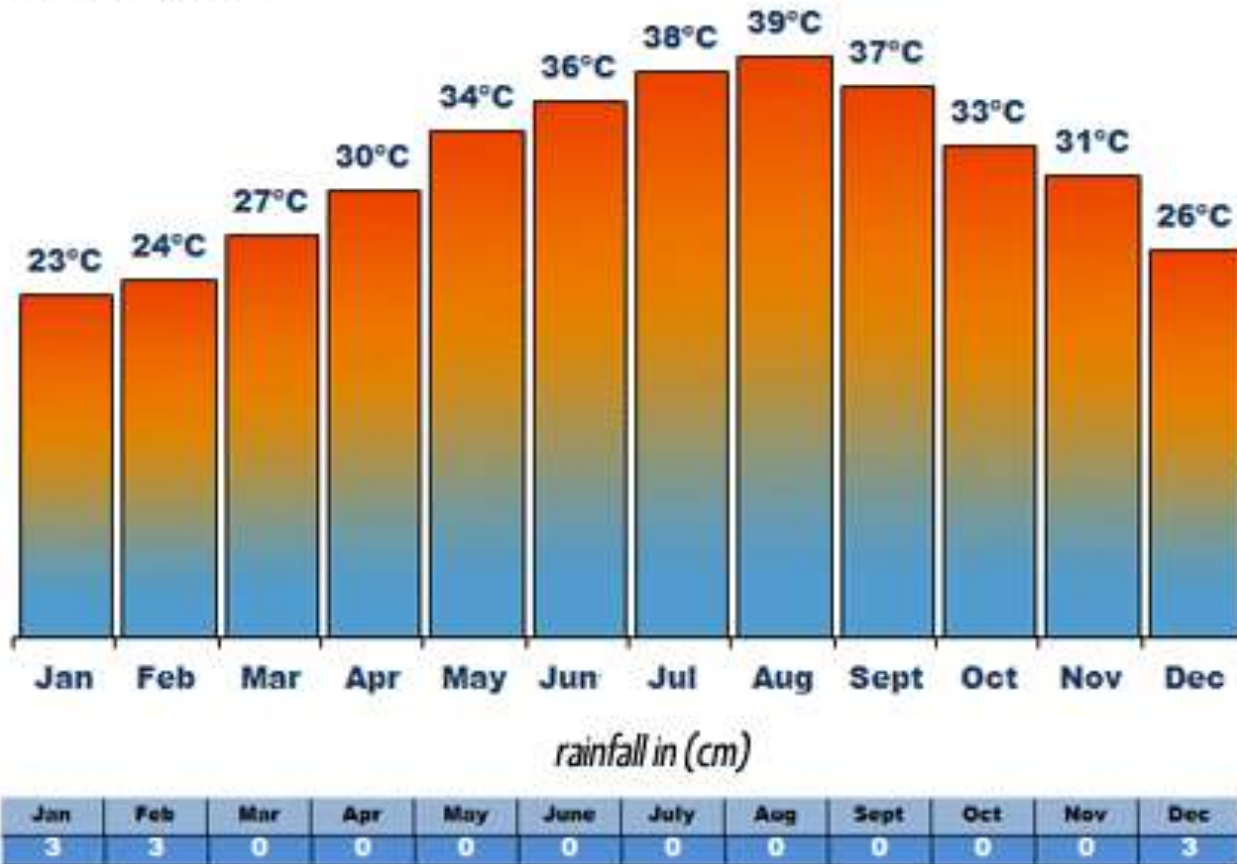


Culture influencing lifestyle



Abu Dhabi's weather vs. Physical activity

Abu Dhabi



Challenges against proper chronic care management

- Low Diagnosis rate
- Low patients awareness
- Poor adherence to guidelines
- Poor patients' compliance
- Health illiteracy
- insufficient blood glucose monitoring

Project Background

- Facing the above mentioned trends and challenges Daman's Board decided on establishing Disease Management Programs (DMP) onsite in late 2008
- Go live for pilot indications diabetes and obesity took place in May 2009
- Some core elements of the program were derived from other healthcare markets' experience
- E. g. the telemedical coaching concept was originally designed for the German healthcare market by almeda
- More than 5.000 enrolled German participants passed the programs (diabetes and obesity) over the years, the concept has been regularly updated with medical experts
- Some outcomes were presented at the Forum 08 in Hollywood

Key Elements of almeda DM Programs

Telecoaching

- Structured coaching calls via telephone at regular intervals provided by specially trained medical specialists
- Focus on lifestyle intervention / compliance management
- Based on recognized methods (transtheoretical model by Prochaska; SMART; Motivational Interviewing)

Feedback

- Individual Feedback-Reports (Health Report) for Patient and Physician
- Health Report giving information about lifestyle intervention (e.g. target tracking) and change in lab values
- SMS-Reminding

CRM-Software
providinCare®

Telemonitoring

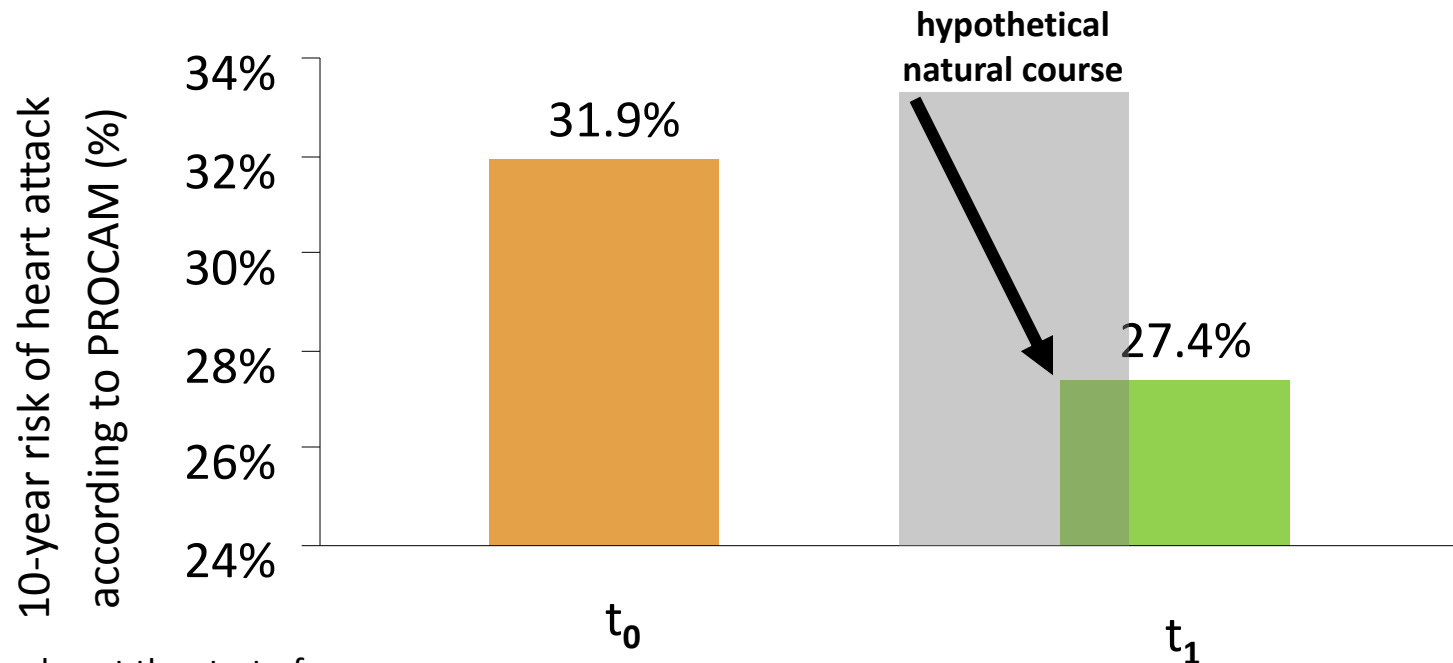
- Continuous Monitoring of Vital Signs (in the Domestic Environment) and automatic check for critical trends
- Application for selected Target Groups (e.g. Chronic Heart Failure)
- Easy to Handle Equipment

Education Material

- Education material is optimized for participants needs and every-day use
- Experts from specialized fields provide quality assurance for documents
- Modular concept containing general and specific information

Outcomes from the German market (excerpt)

Change in the 10-year Risk of Heart Attack after 1 Year's Care in the Health Program for Diabetics



t_0 = initial value at the start of care program

t_1 = latest value, at least 180 days later

n = 91

Timeline



Source: Results presented at Forum 08, Hollywood (FLA)

Cross border cooperation

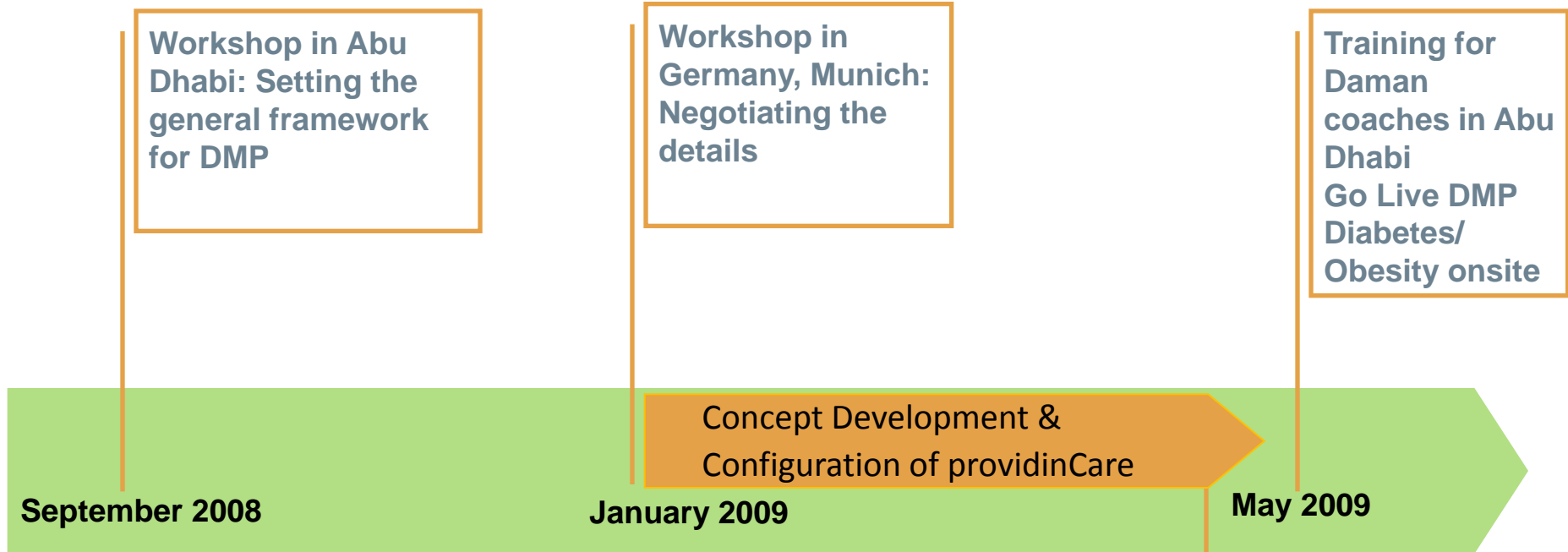
Together with healthcare experts from different parties the German approach was transferred to UAE and adapted to the local market needs.

Cooperation covered

- Support with business plan setup and concept development
- Training of Daman coaches in Germany and Abu Dhabi
- Translation, cultural adaptation and configuration of CRM-Software providinCare® in English and partially in Arabic



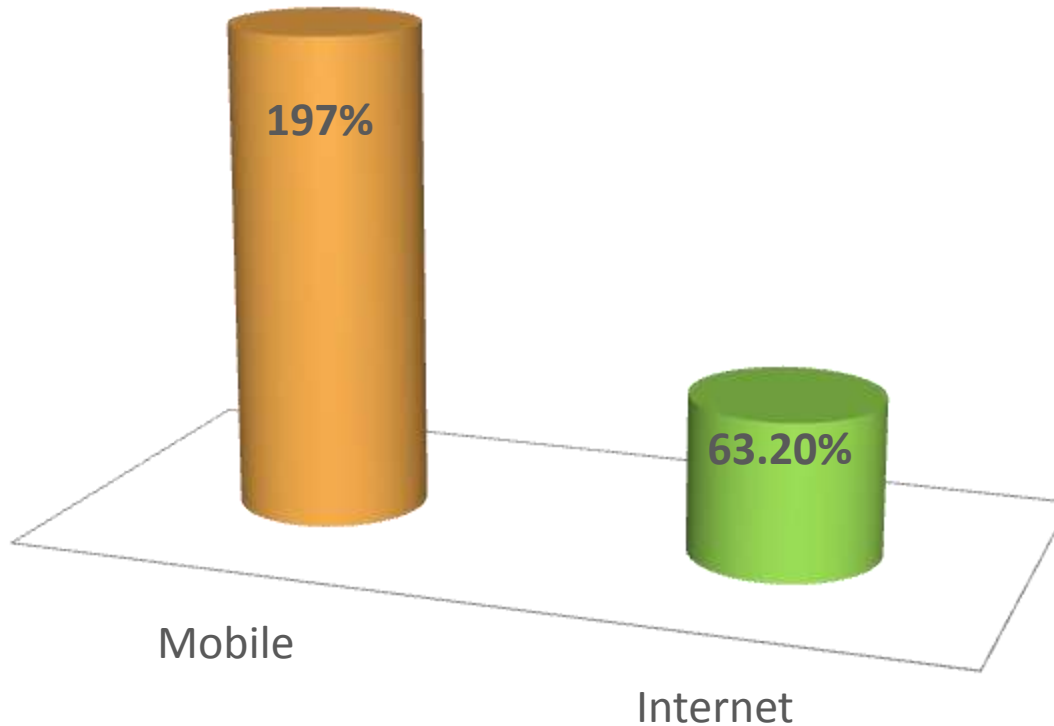
Timeframe



Training for Daman coaches in Munich

Is Telecoaching the right choice?

Subscriptions per 100 inhabitants March 2011



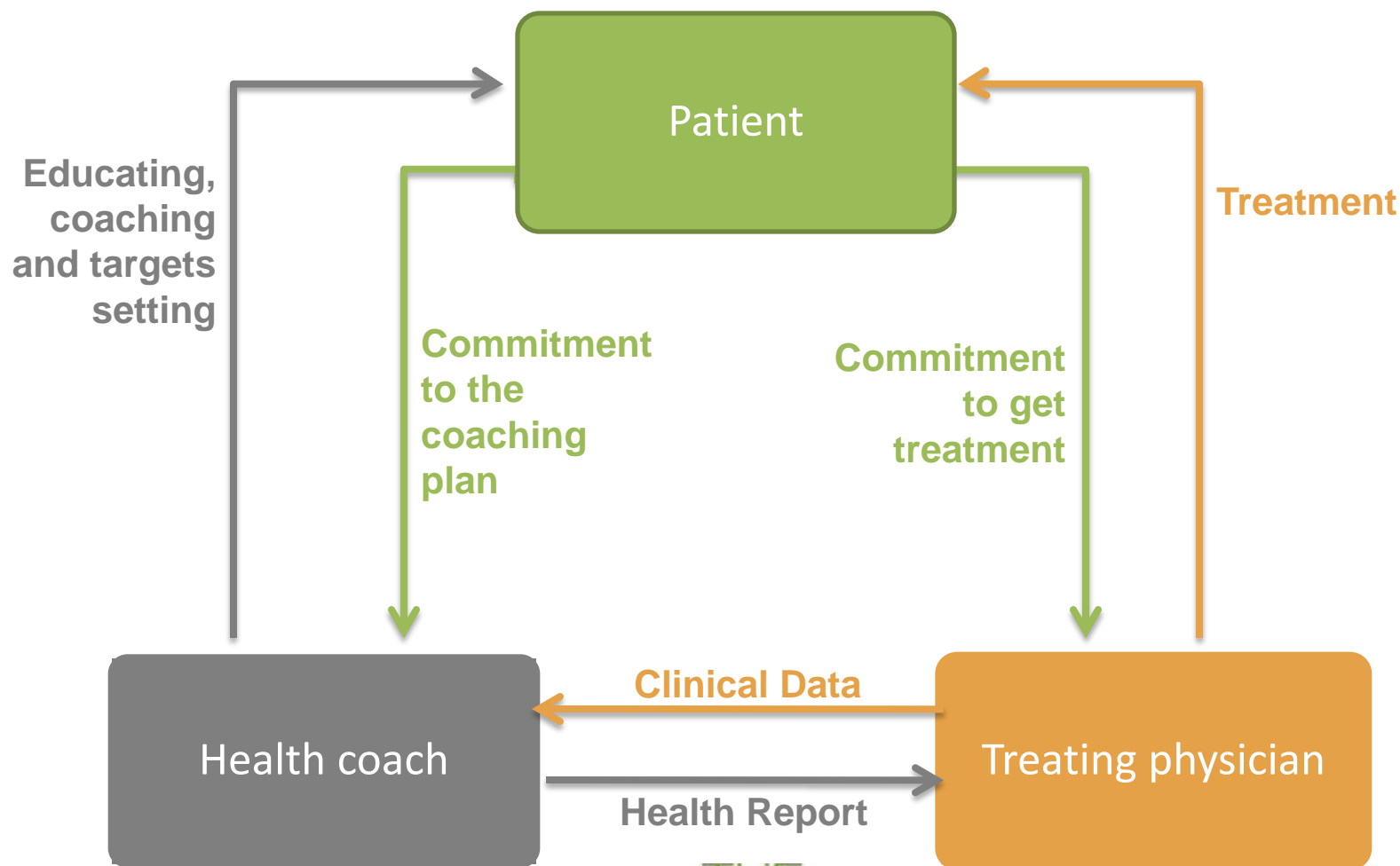
Objectives

Demonstrate an innovative structured care design to enhance self management of diabetic patients

Illustrate the power of cultural adaptation on engagement rate

Assess the effectiveness of an adapted chronic care model (diabetes/obesity) in a challenging cultural environment

Daman's coaching concept



Disease Management

- Daman's Disease Management program, aims to deploy integrative care solutions for the prevention and minimization of symptoms affecting patients suffering from chronic diseases.

Key Facts

- Established 2009
- Serves 2,000 members
- 3 indications: diabetes, obesity and asthma
- 21 employees
- Training by Almeda and Diabetes Academy, Germany

How it works

- Personalized health coach using Providincare® technology
- HbA1c used as a core parameter to monitor diabetic patients

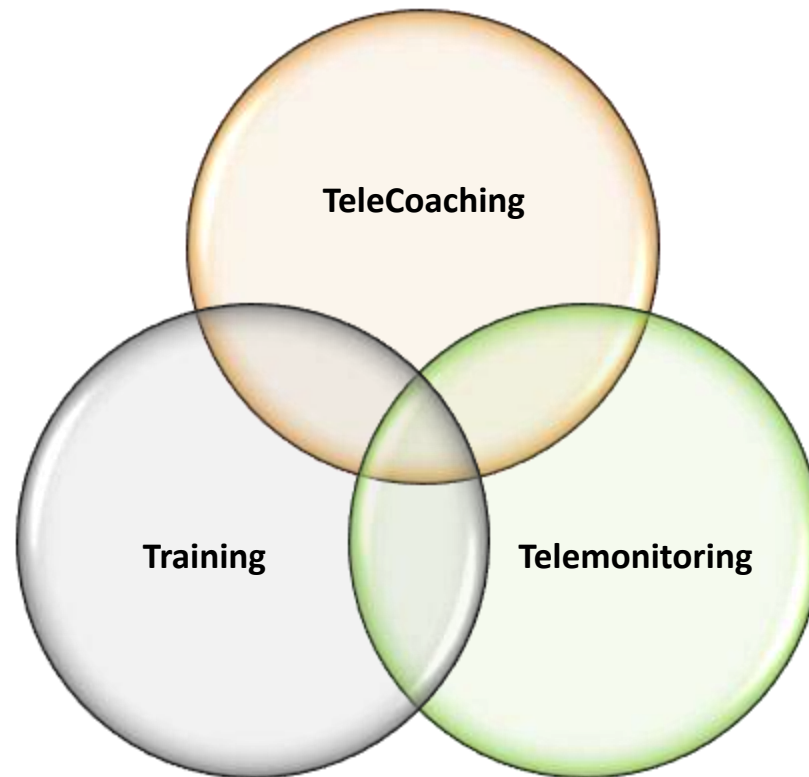
Quality

- To be granted first 'Health Educator License' in UAE
- CCP certification
- Participating in International conferences in London, Denmark Dresden and San Francisco

Daman's Disease Management Program

Main goals:

- Improve quality of life for individuals with chronic conditions by preventing or minimizing the effects of a chronic condition through integrative care
- Reduce healthcare costs



Telecoaching

Objective:

Through ProvidinCare technology Daman provides patients with a personalized health coach who calls them regularly encouraging them to shift to a healthier lifestyle:

- to motivate,
- to educate,
- to set targets and helping patients to achieve them and
- to evaluate health status.

Daman's Service:

- Structured phone calls lasting 15-20 min.
- Initially one call per month
- After one year one quarterly calls
- Permanent service



Telemonitoring

Objective:

Telemonitoring refers to the continuous monitoring of a patient's condition to enable coaching, lifestyle changes and patient self-management.

Daman's Service:

Telemonitoring of diabetes:

- Glucose measurement
- Real-time data transmission
- Bluetooth transmission
- Check patient Data, alert functions etc.



Trainings

Objective:

Daman offers an Interactive Group trainings for Diabetes and Obesity through the MEDIAS 2 program which is translated into Arabic/English and adapted to the Gulf/Arabian culture.



Daman's Service:

3 month course with (12 lessons,
1 lesson/week, 10-20 Patients / group)

In order to:

- Understand diabetes
- Change lifestyle
- Lose weight
- Live on healthy diet



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Enrolment process adaptation:

	Abu Dhabi	Germany
Who is inviting	Health insurance by UAE Nationals	Health insurance Treating physician
Channel	Phone calls	Written invitation phone calls
Sending/receiving consent forms	Aramex/ Fax/E-mail	written form / per post
Welcome pack	Introductory brochure + a consent form	Welcome letter; brochure "Basics Diabetes Typ I+II"; glucometer; Diabetes documentation booklet; medication protocol
Incentives	N/A	Measuring tape, pedometer

Cultural competency

The % of illiteracy and health illiteracy is high !

There is no zip code in UAE

Coaching implementation adaptation:

	Abu Dhabi	Germany
Coaches	UAE Nationals who are specially trained coaches with medical background	Specially trained coaches with medical background
Gender	90% females	80% female (> not an issue in Germany)
Data collection	Participant, family by Coordinators directly from the treating physician/every visit	Participant, family, treating physician/biannual , telemonitoring...
Health report	Arabic/ English	Both copies in German

Cultural competency

Female participants can only get calls from female coaches

Collecting the data from the physician directly

An Arabic copy to the participant and an English one to the treating physician

Training content/process adaptation:

	Abu Dhabi	Germany
Training program	MEDIAS2 , a twelve sessions group education course	training via phone; in some projects face2face training sessions onsite
Erectile dysfunction	WENUS	Special brochure available
Special occasions	A new Chapter about Ramadan & dates was added to the original program	Behavior in special occasions, e. g. business lunch
Who is training?	Female trainers are training female participants And Male trainers are training male participants	The coach him- / herself; medical doctors / experts

Group education (be active yourself managing DM)

Addressing a sensitive issue in an Arabic country

Cultural competency

Gender separation challenge!

Training content/process adaptation:

	Abu Dhabi	Germany
Lilly maps	Yes	No Lilly maps
Nutritional references	Arabic sources	Software supported diet analysis plus expert advice by nutritionists
Healthy cooking/healthy kitchen/healthy shopping	Yes	No

Visual tools to address illiterate participants!

Cultural competency

Live activities which increased the participants' engagement

Telemonitoring concept:

	Abu Dhabi	Germany
Which devices	Glucometers & blood pressure monitors	Blood pressure & weight monitoring and activity sensor in regular use; glucometers also available
connectivity	Bluetooth/mobile interface	Bluetooth/Hub
Language	Arabic software	German

Real time monitoring

To overcome the challenge of the low % of monitoring

Using mobile phones as an interface is the best option in a population using mobiles 196%

Cultural competency

Objectives

Demonstrate an innovative structured care design to enhance self management of diabetic patients

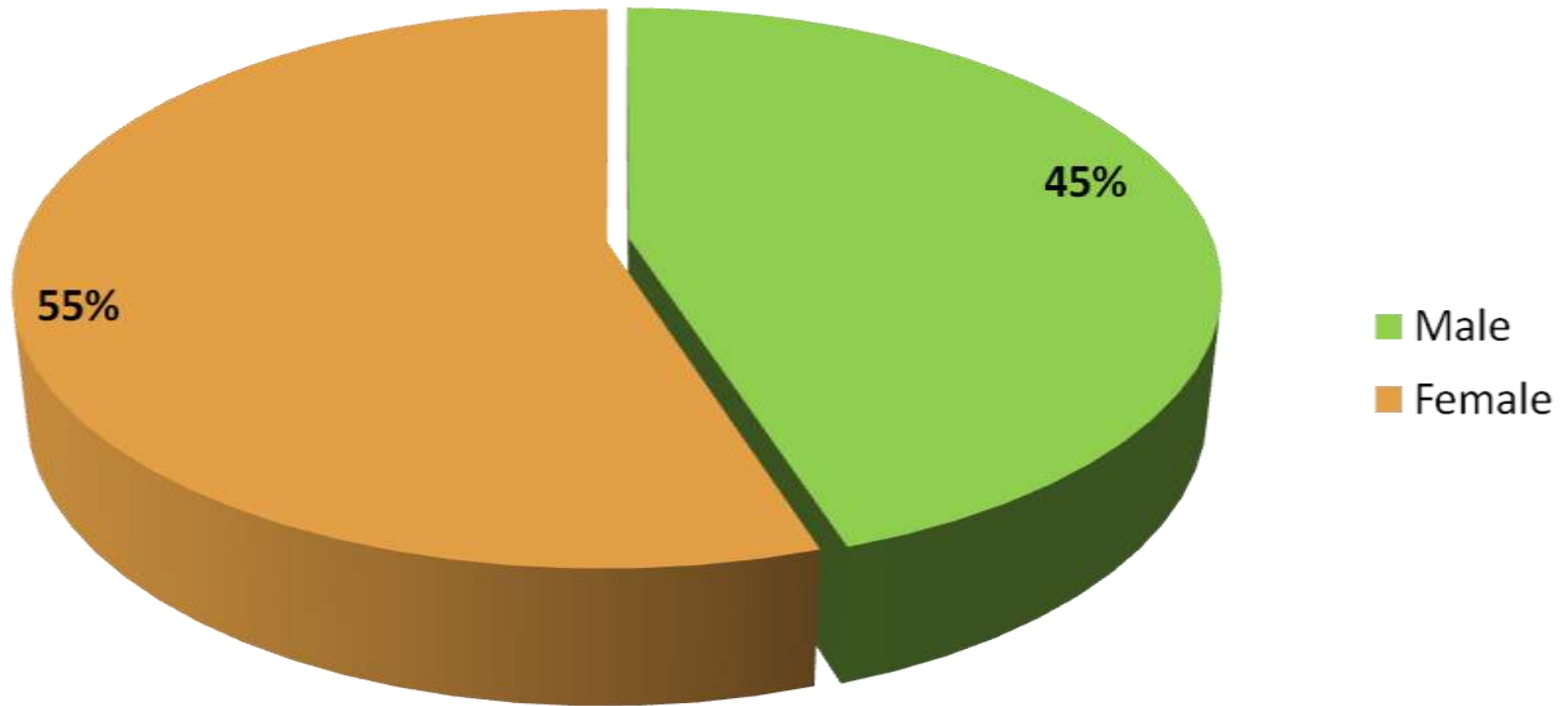
Illustrate the power of cultural adaptation on engagement rate

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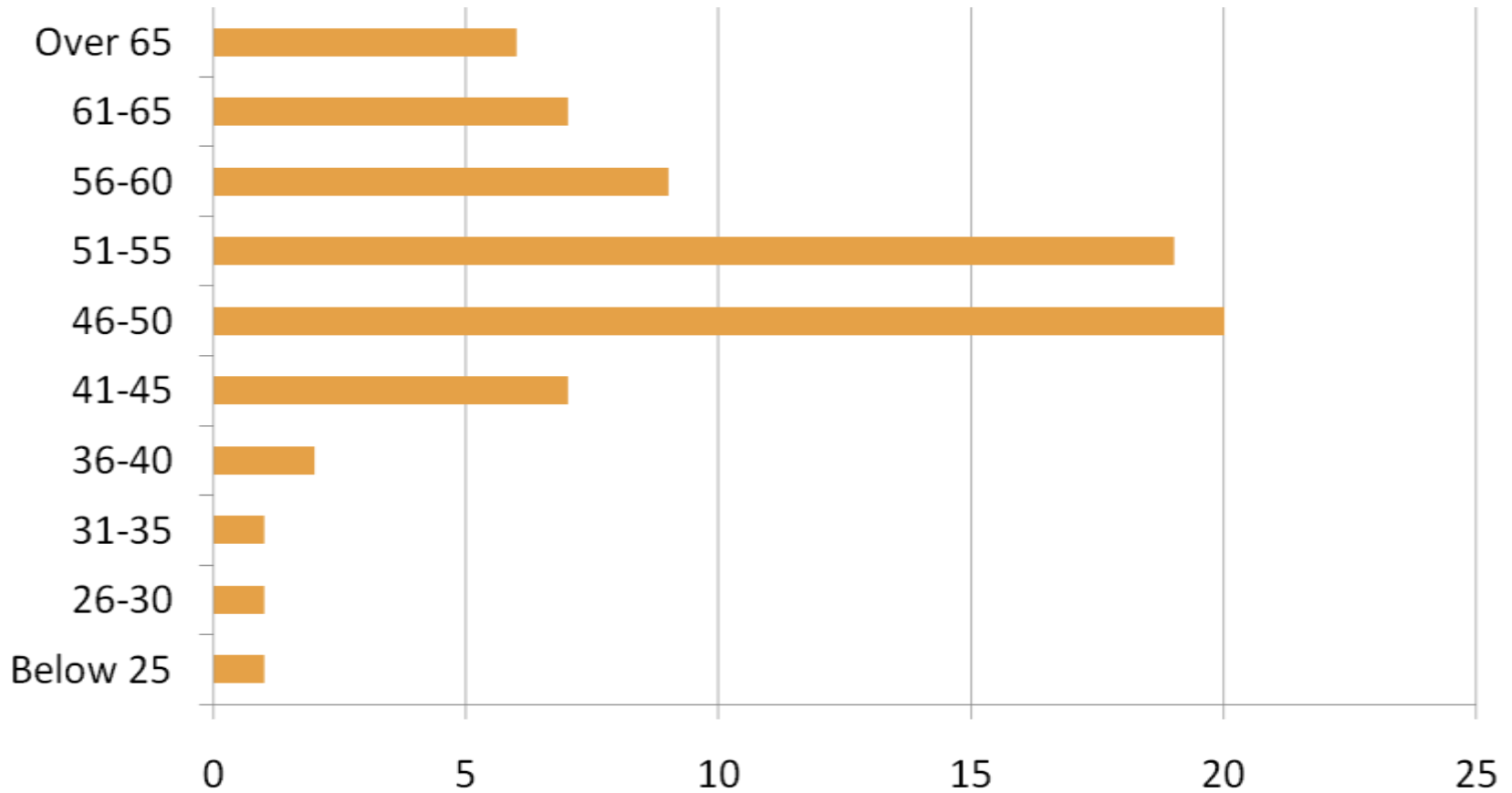
Sample description:

- n= 87
- Inclusion criteria: HbA1c \geq 7%
- Average systolic blood pressure: 126 mmHg
- Average diastolic blood pressure: 72 mmHg
- Lipids profile:
 - TC: 162mg/dl
 - LDL:100mg/dl
 - HDL:47mg/dl
 - TG : 145 mg/dl
- Microalbumin: 23.8

Participants population/Gender



Age distribution

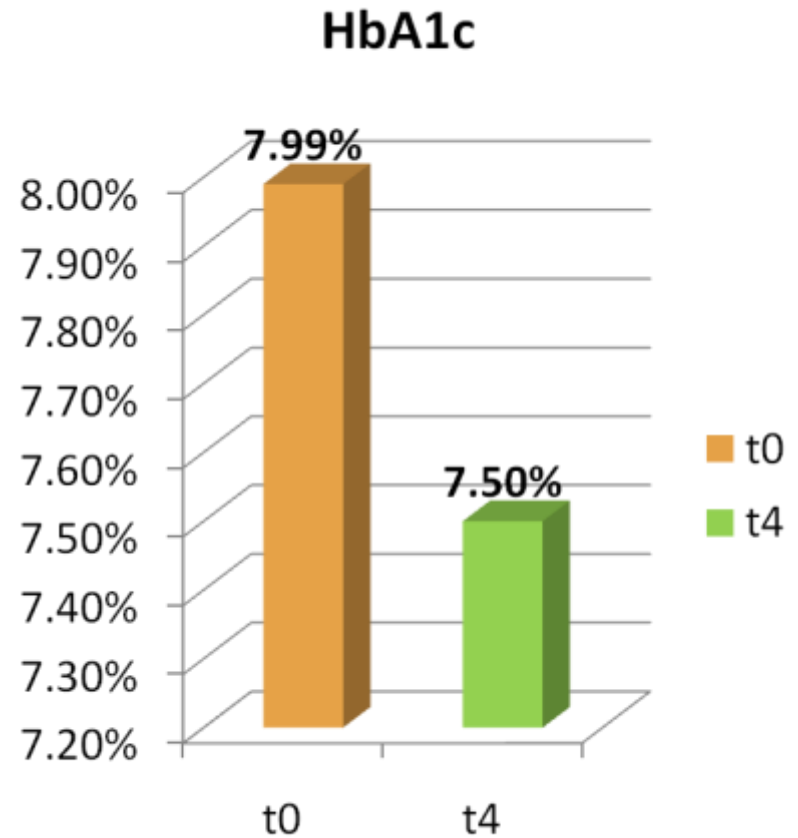


The age peak for our population is from 45-55 years!

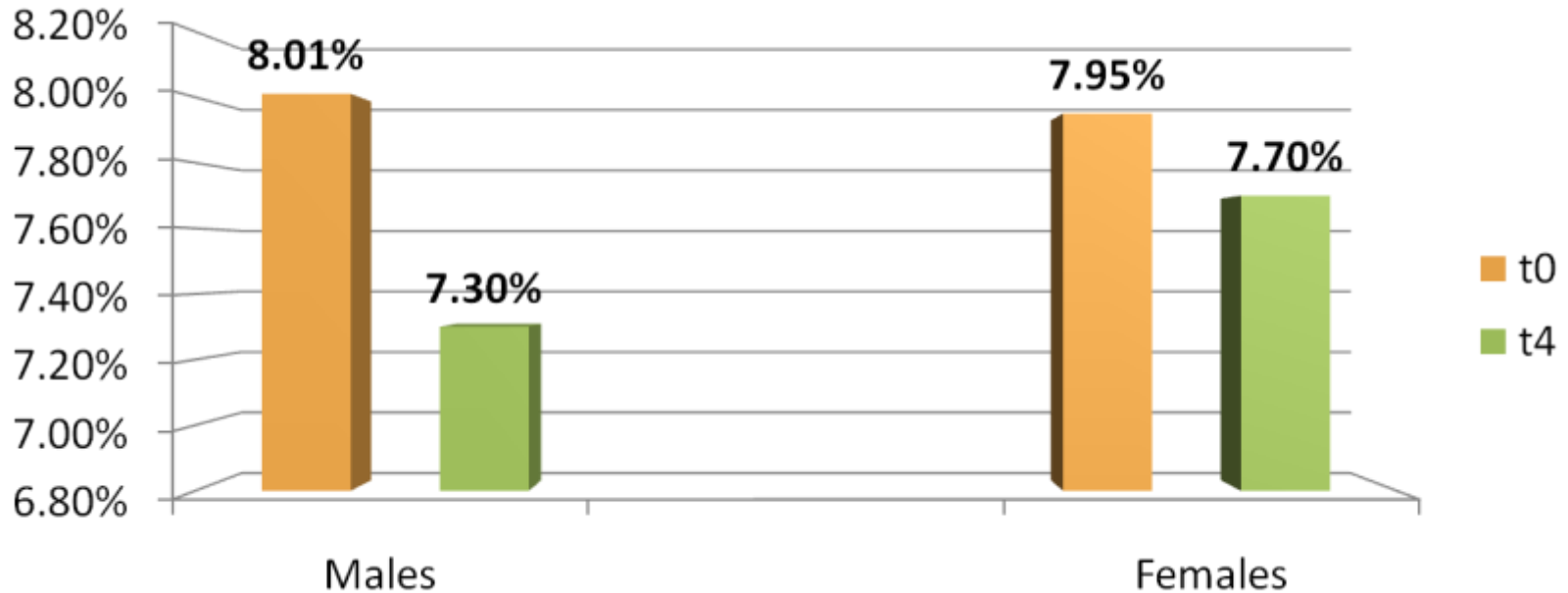
HbA1c

- Observation period:12 months
- t0= HbA1c starting the program
- t4= HbA1c after 12 months

A reduction of 0.49 % points
Was achieved after 12
months

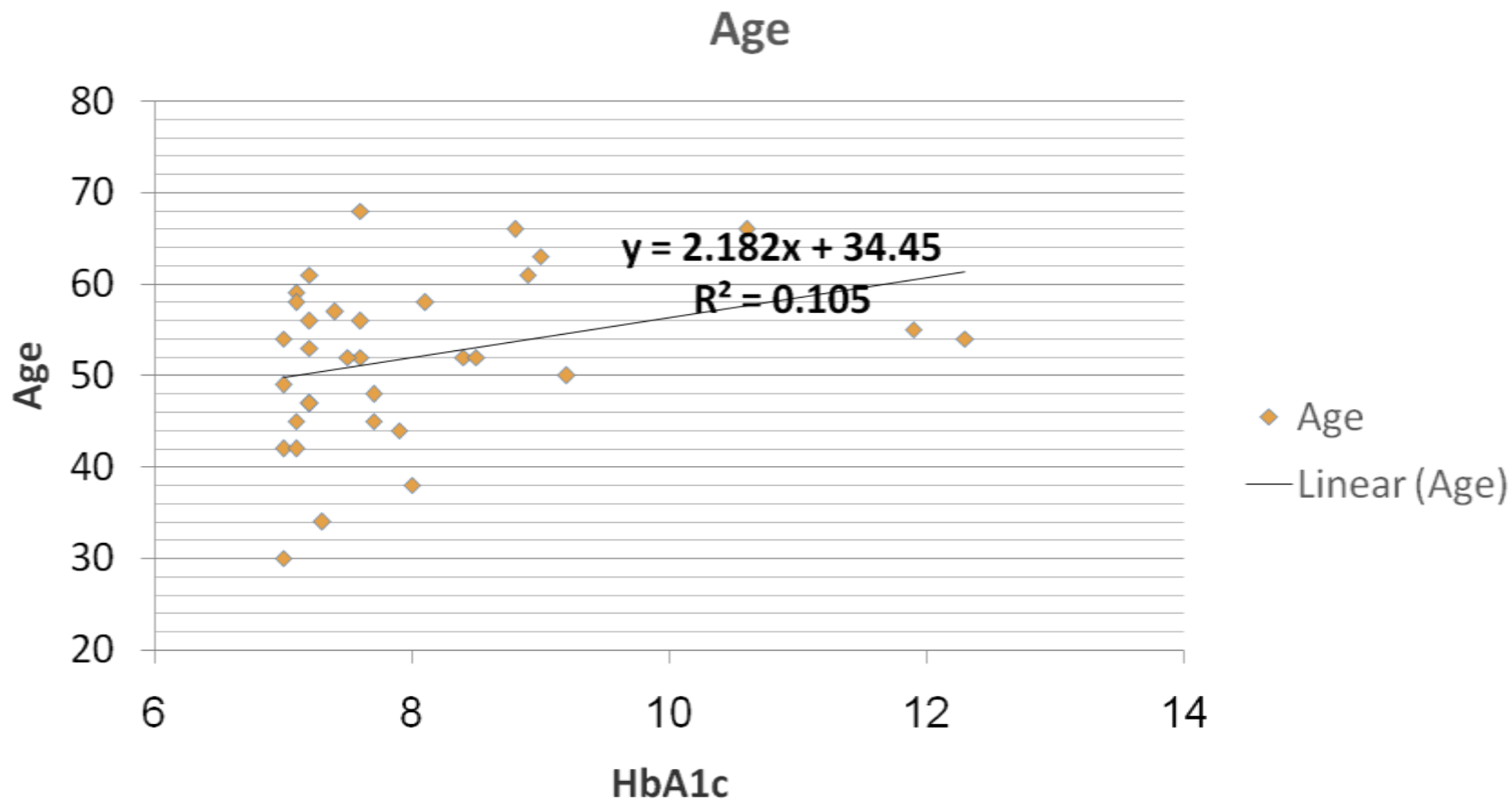


HbA1c Male vs. Female

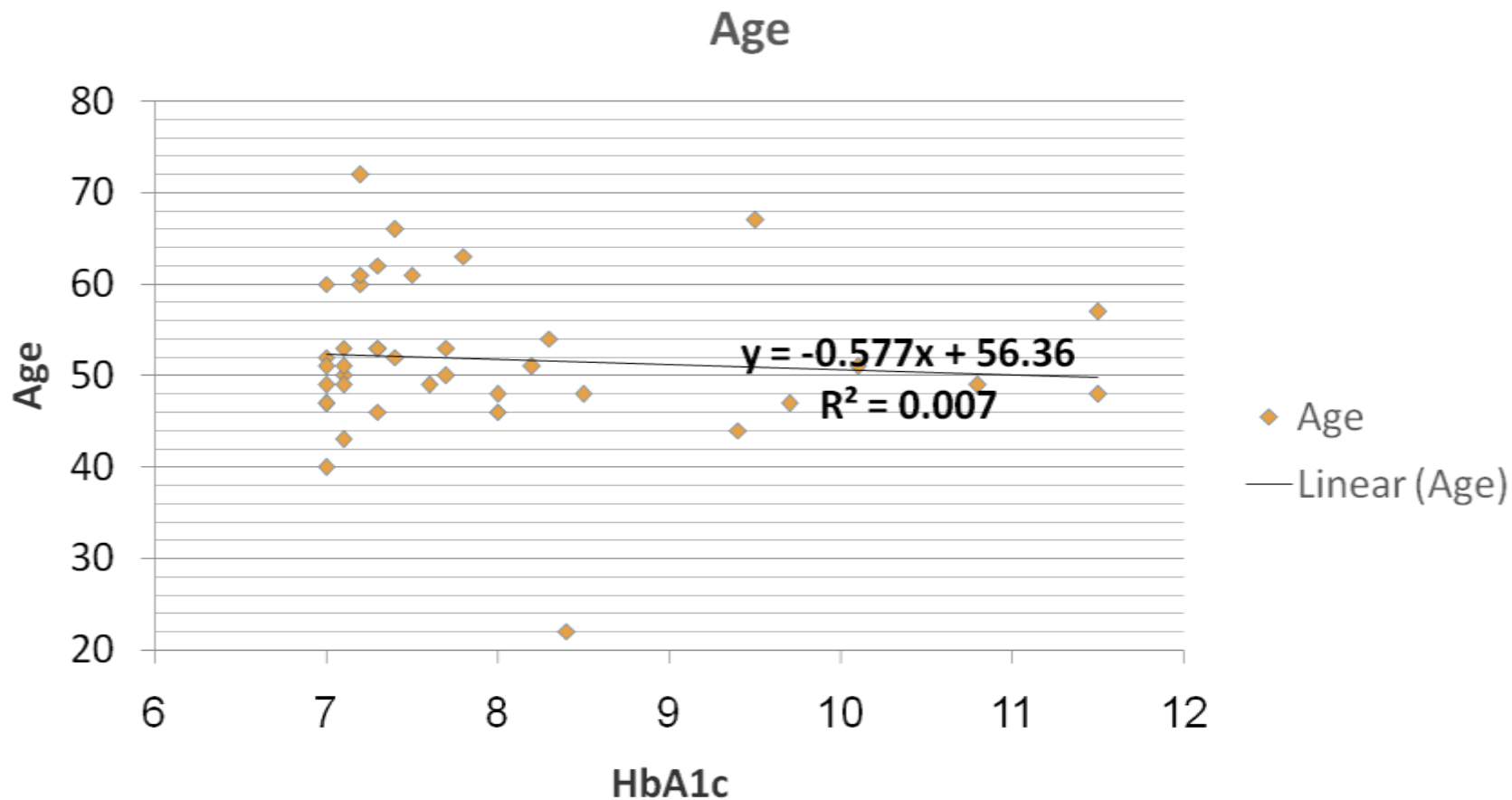


HbA1c reduction is higher in males (0.7% points)
compared to females
(0.25% points)

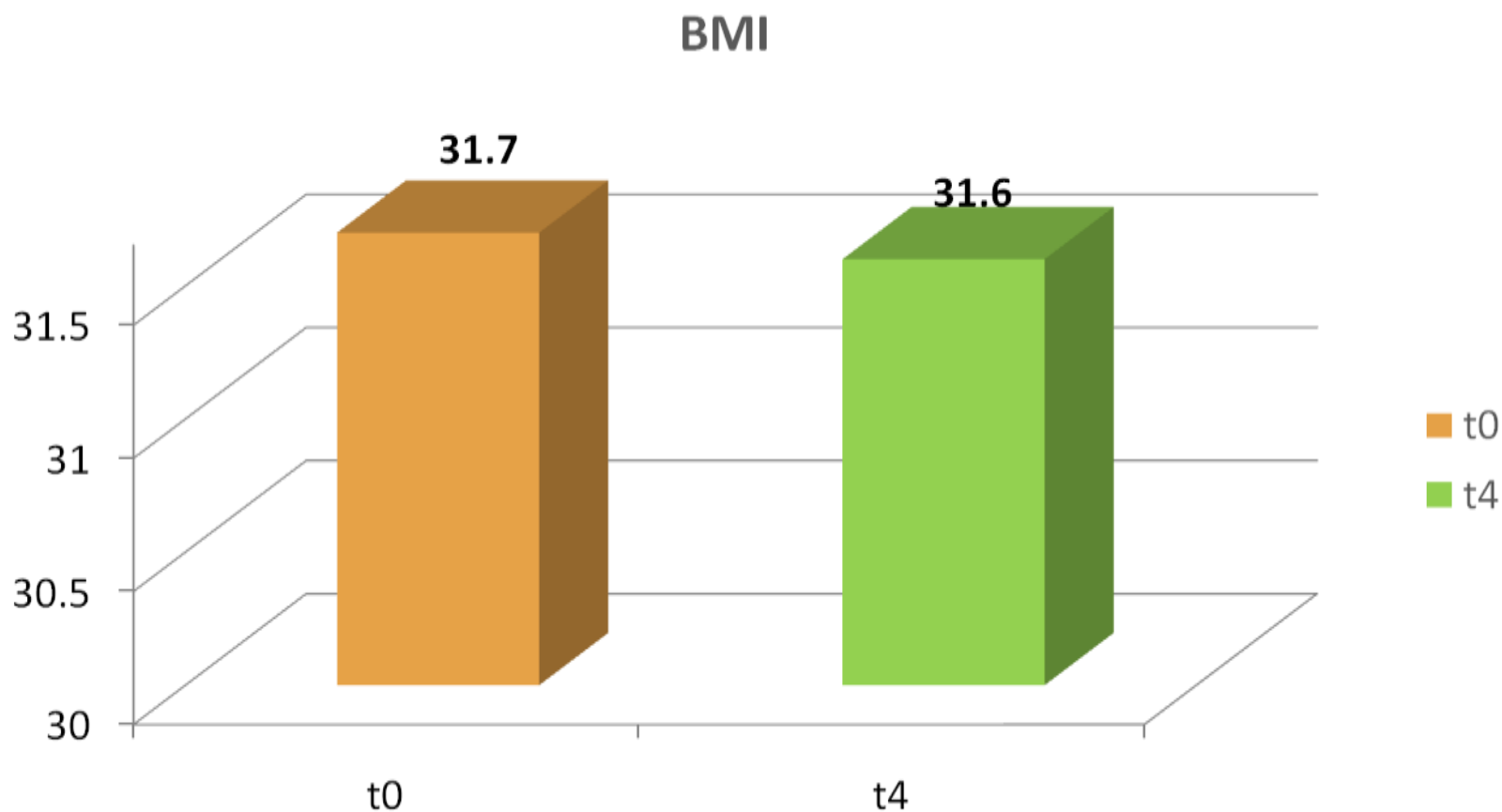
Male: Age vs. HbA1c



Female : Age Vs. HbA1c

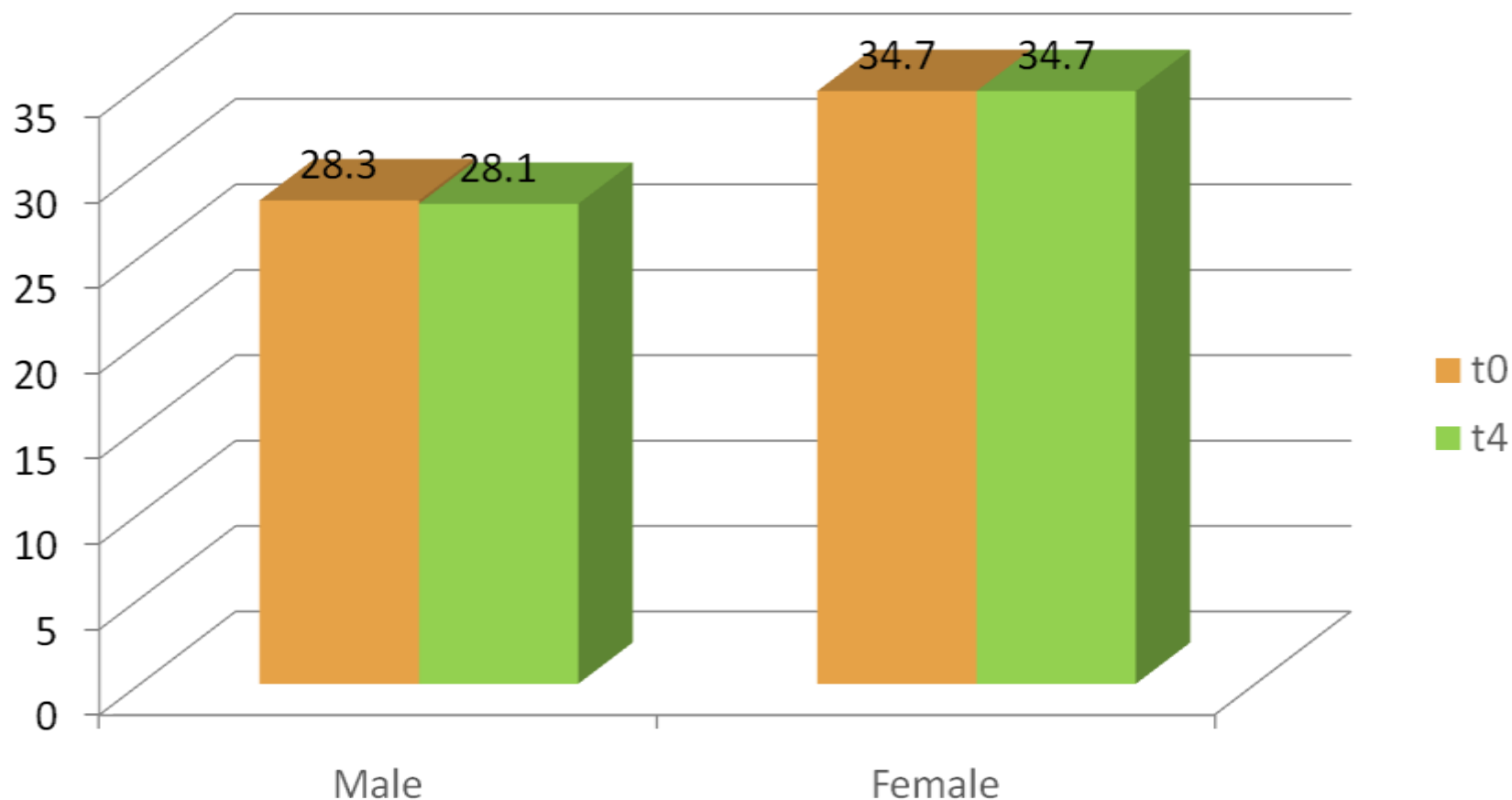


BMI



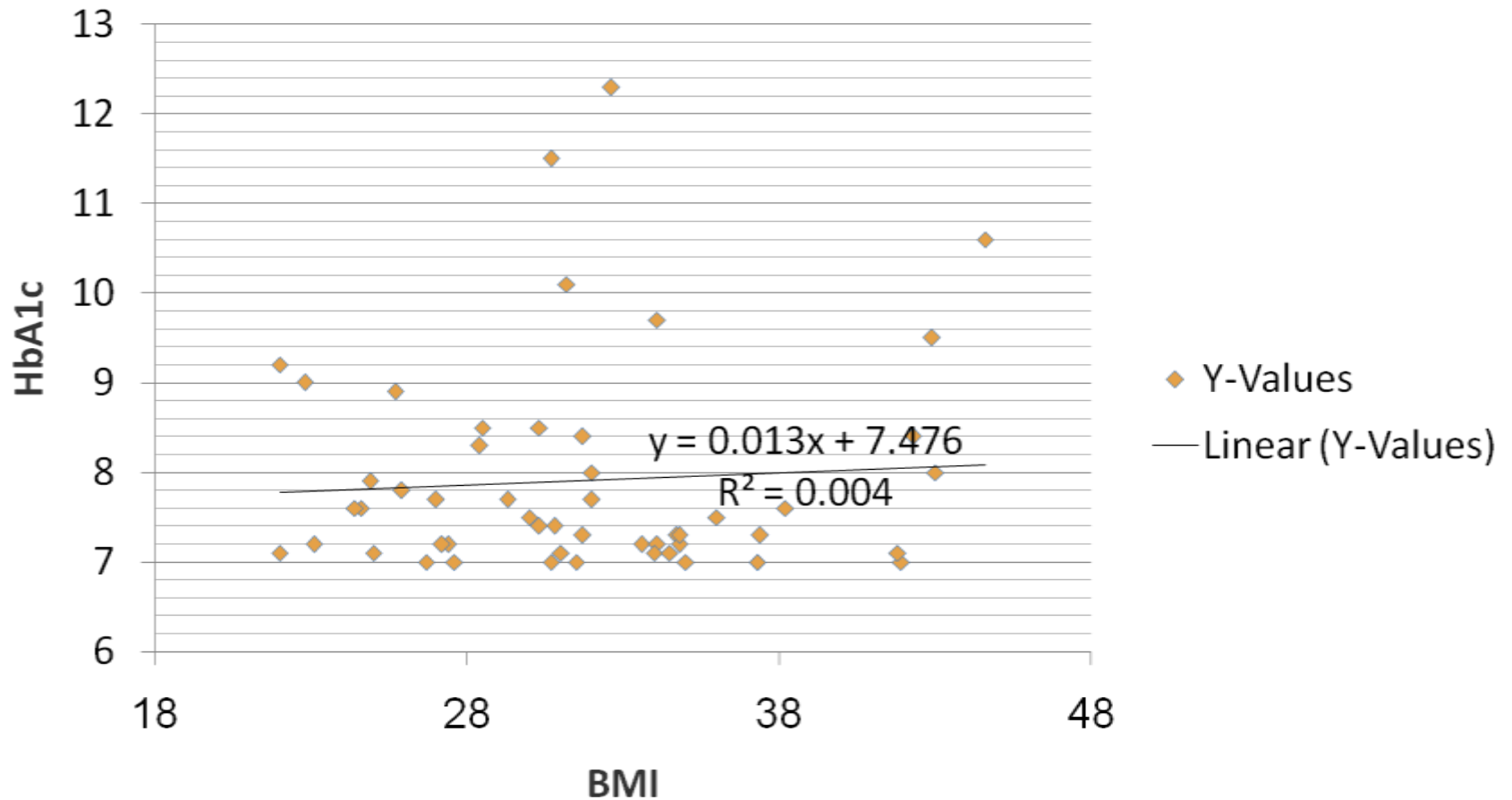
In general: there is no significant reduction in BMI! Why??

BMI Vs. Gender

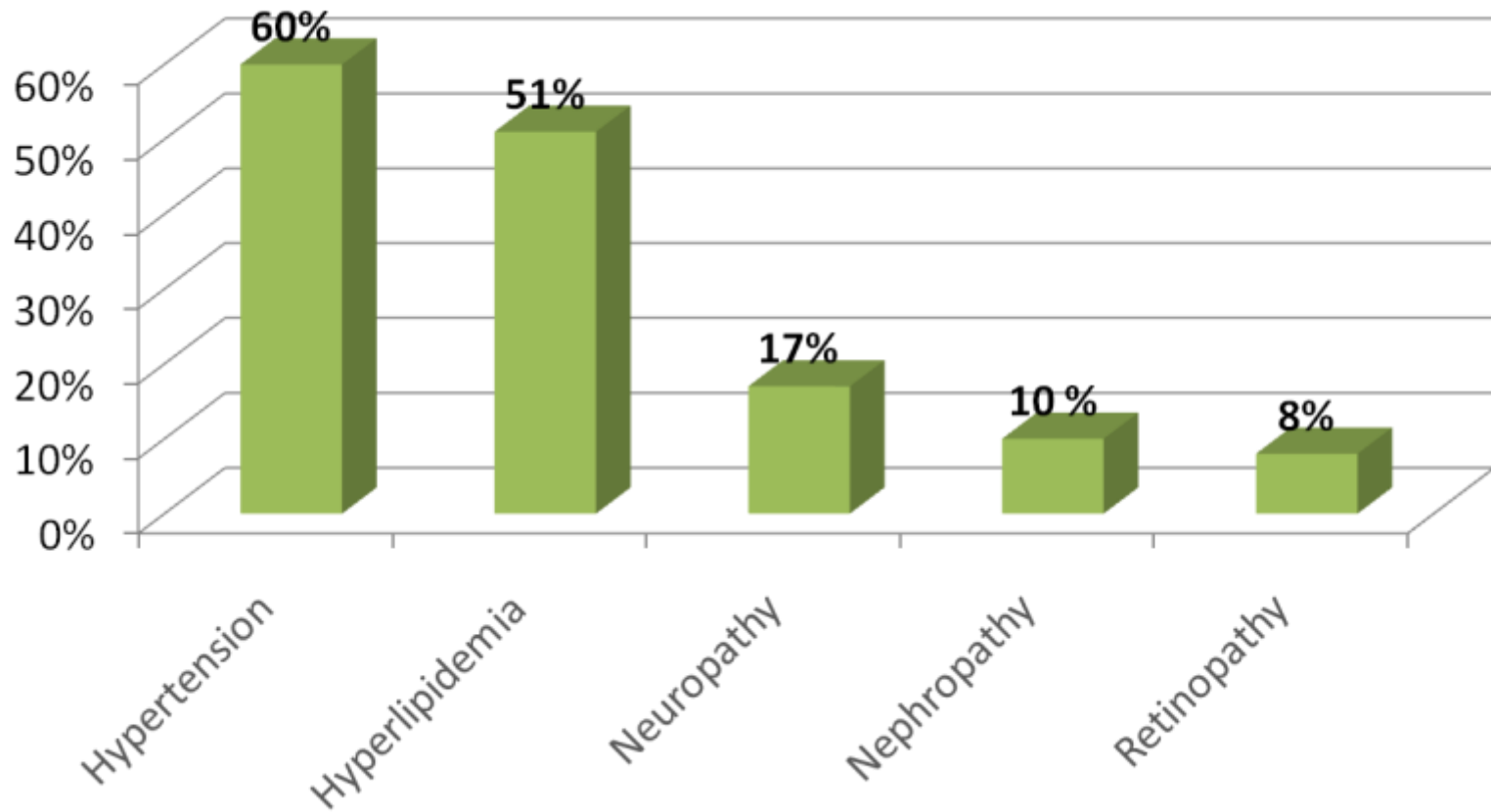


Males are overweight and females are obese!

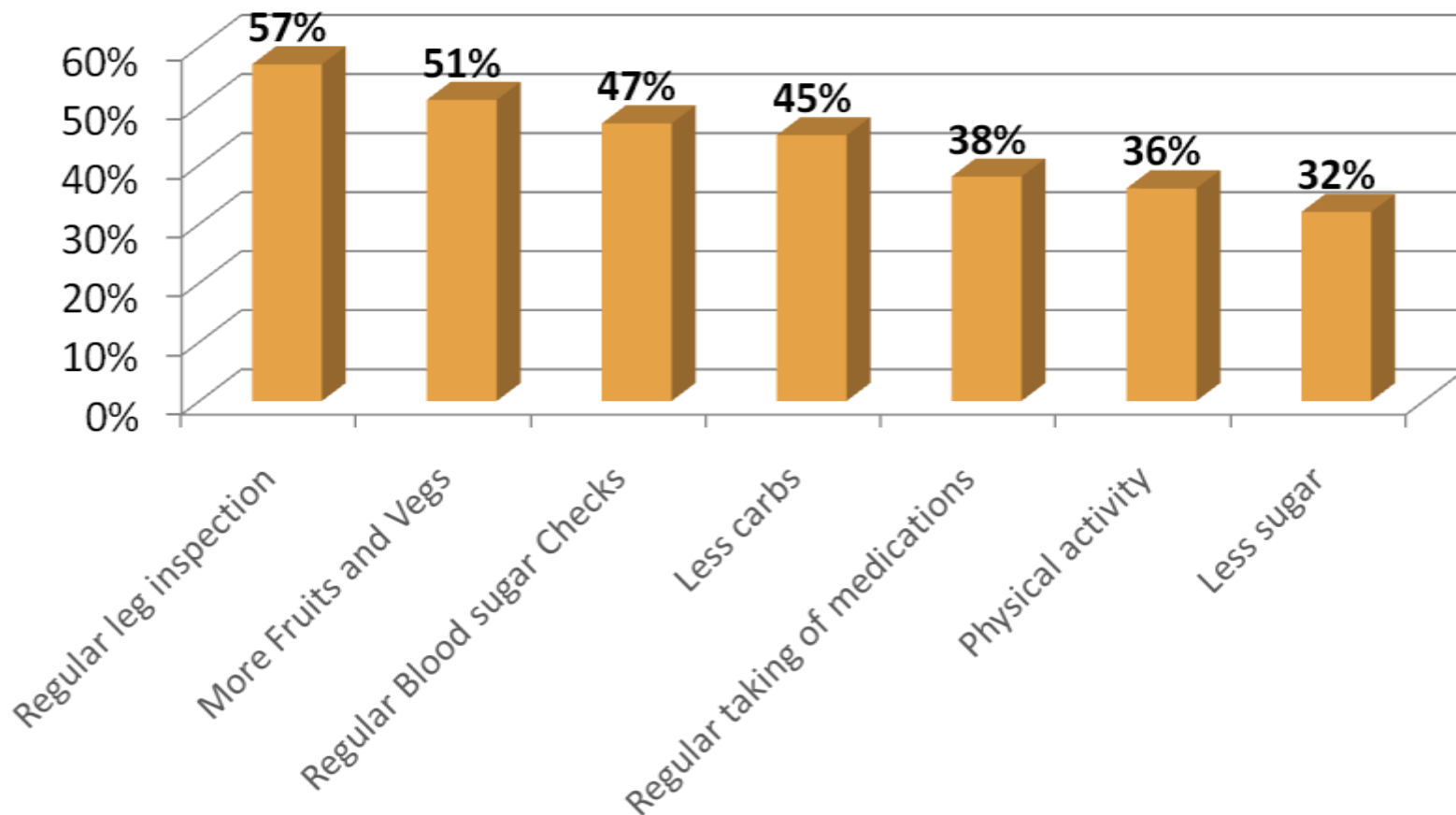
HbA1c vs. BMI



Co morbidities & complications



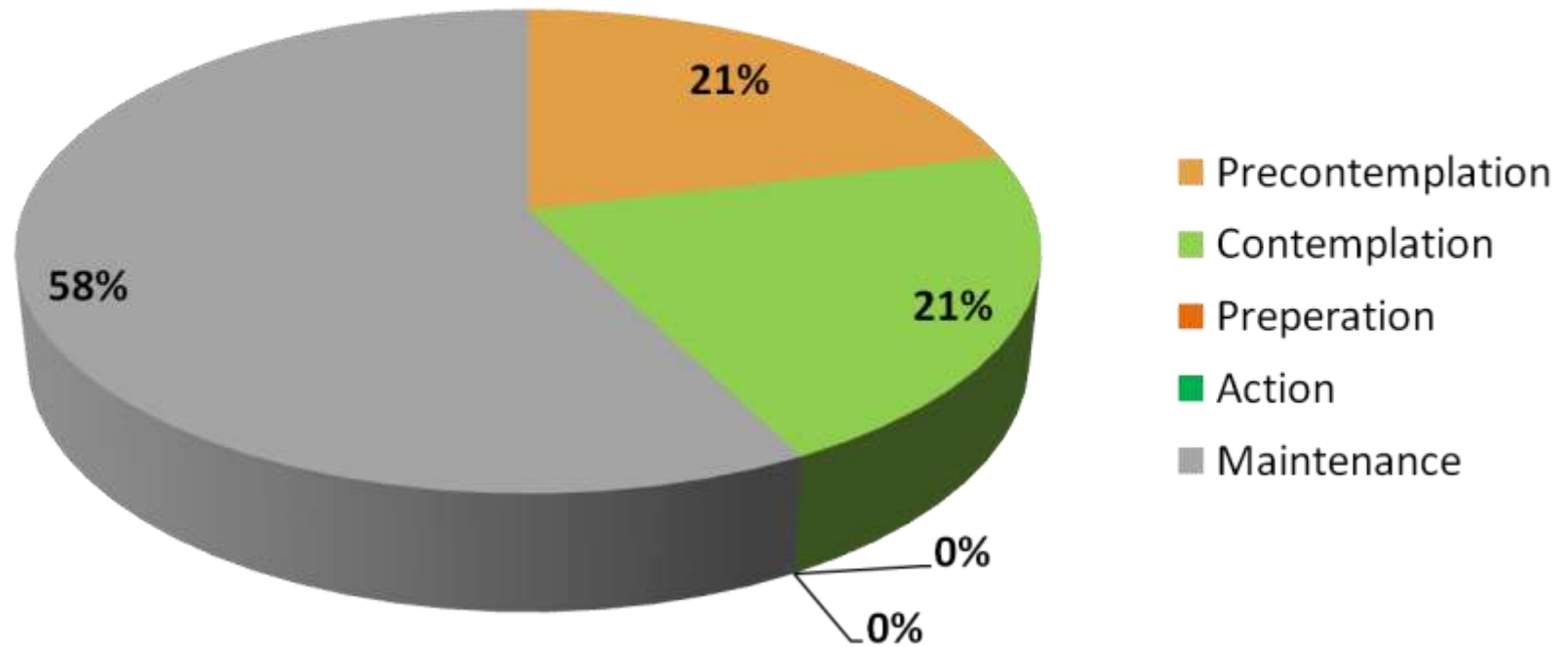
Achieved targets:



Transtheoretical model: Smoking

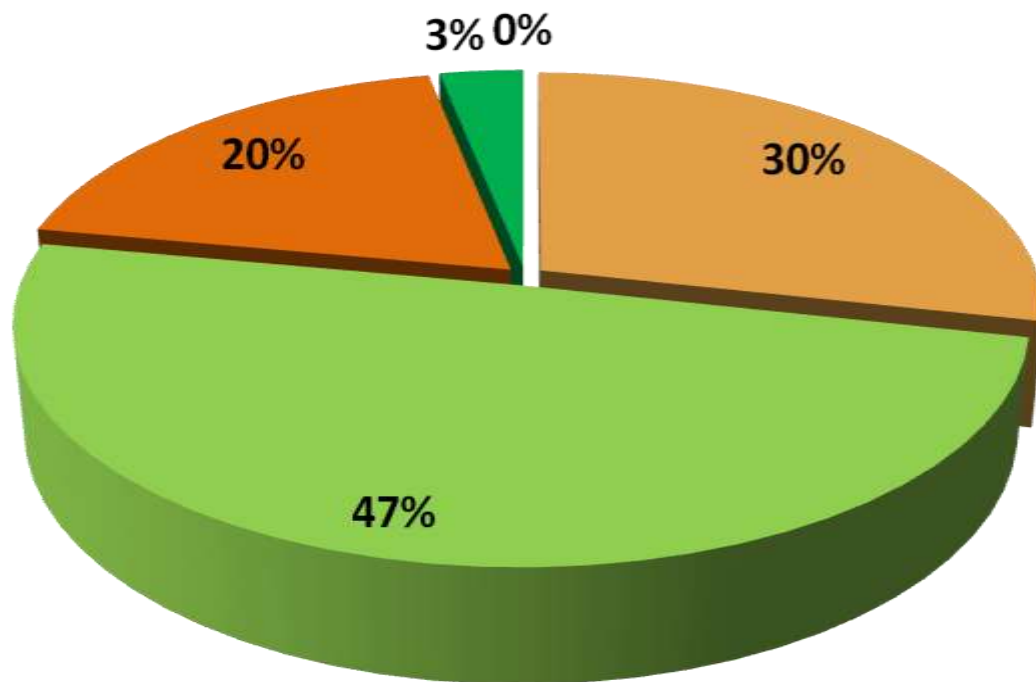
TTM Smoking

More than 50% of our population are already in the maintenance phase!



TTM: Nutrition

Nutrition TTM



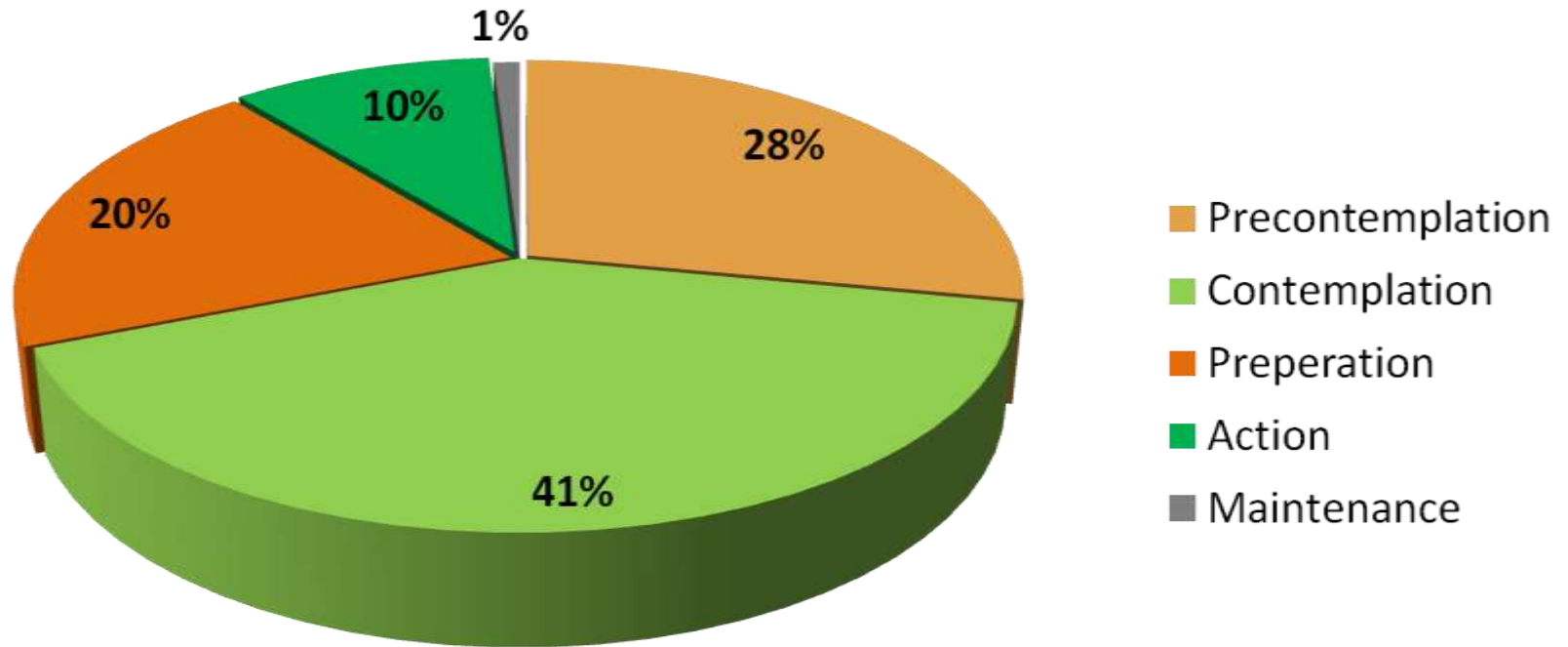
Around 50% of our population are in the contemplation phase!

- Precontemplation
- Contemplation
- Preperation
- Action
- Maintenance

TTM: Activity

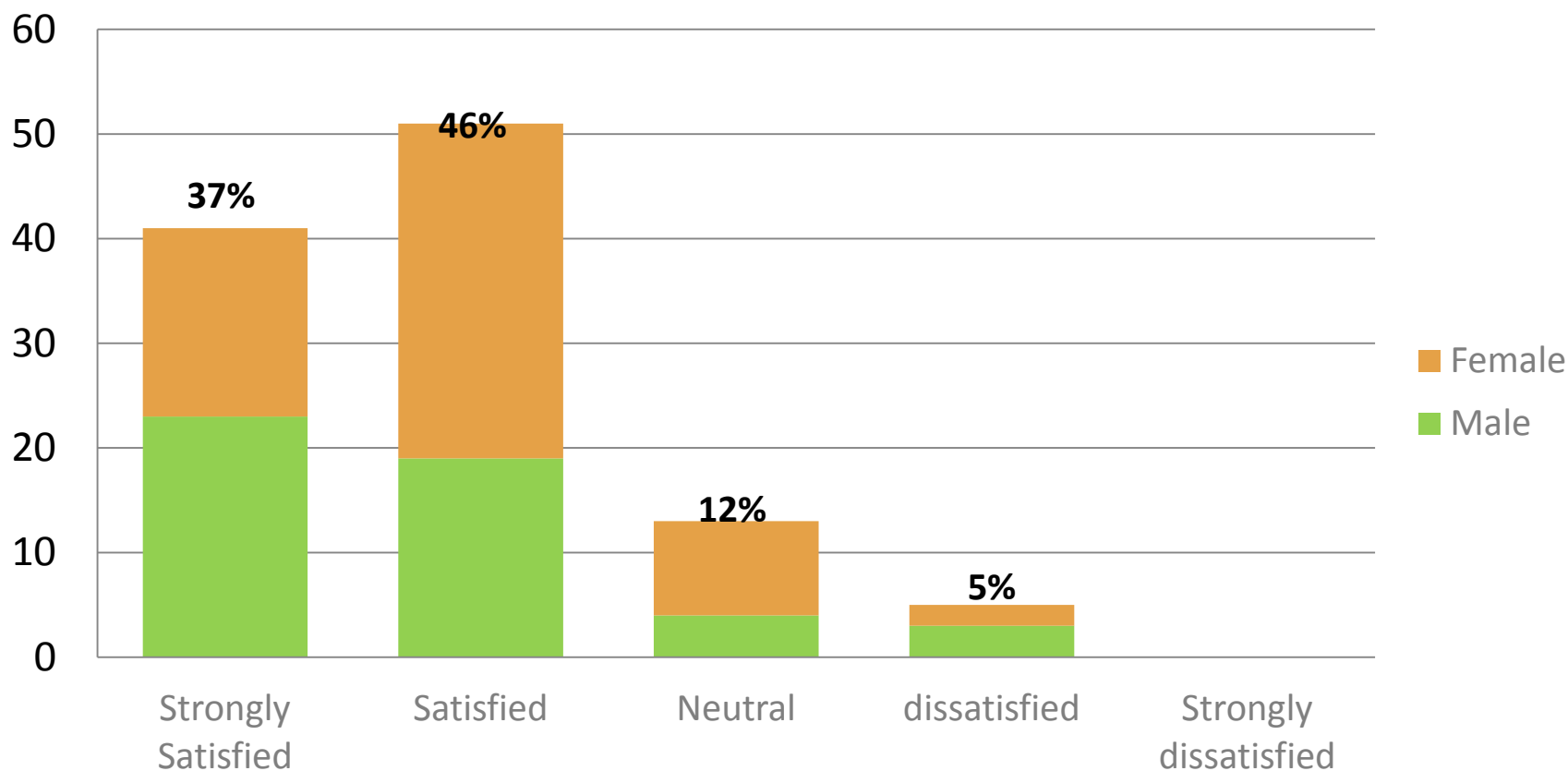
Around 90% are not able to start an activity action!

Activity TTM



Patient Satisfaction

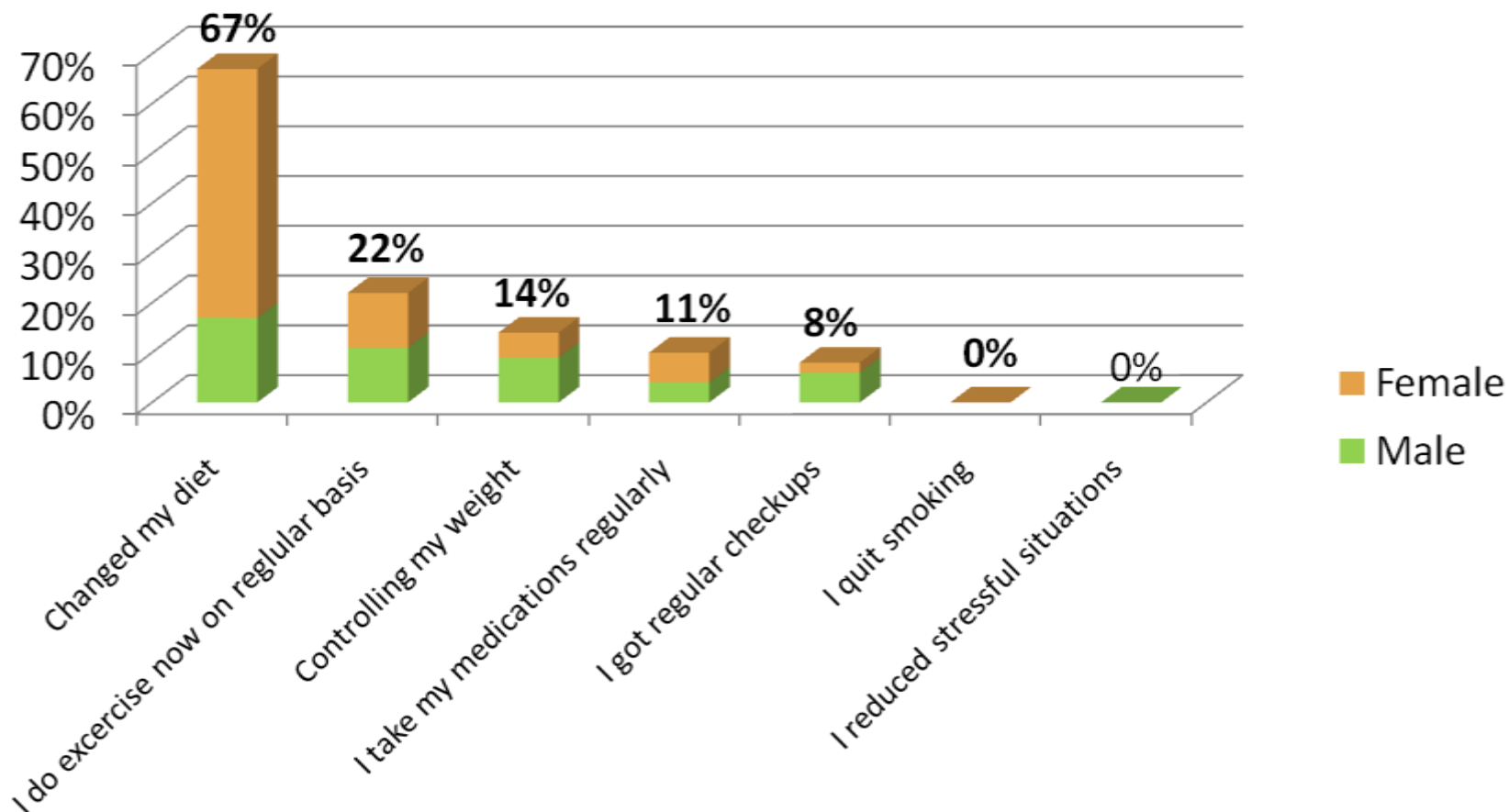
How satisfied are you with the coaching in general



More than 70% are satisfied / strongly satisfied!



Changing life style



Summary

- It is possible to transfer DM-concepts successfully from and to different healthcare markets in a time and cost efficient way
- Cultural adaptation is a must!
- Additional factors of success are:
 - Willingness to learn from each other (both directions!)
 - Strong project management skills from both sides
 - General conditions onsite (e. g. IT, qualified staff)

PS: expansion of the DM Programs in Abu Dhabi for further diagnoses has already started (asthma, maternity)