



# Overview of the UAE Approach to Tackling Non Communicable Diseases

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**Connected Living Summit - mHealth Session**  
**Dubai, UAE, 19-20 November 2013**

## **Vision:**

**A Comprehensive and Effective Health System  
for High Communal Health Standards**

## **Mission:**

**To Enhance and Develop the Health System in  
Compliance with International Standards  
through Effective Legislation and Strategic  
Partnerships with Local & International  
Participants**

# A Global Overview

- The prevention and control of NCD will constitute one of the major challenges to the world in the 21<sup>st</sup> century as their burden continues to grow.
- The NCDs represent 60% of deaths globally and 80% of deaths occurring in low and middle income countries.
- Deaths from NCDs are projected to increase by 17% by the next 10 years.
- In 2008 WHA resolution (60.23) adopted 2008-2013 global action plan for the prevention and control of NCD.
- UN General Assembly – Sixty Sixth Session, September, 2011 Adopted the Political Resolution by the head of States.

# GCC Meetings, Declarations and Conferences

- Recommendations of the 71<sup>st</sup> conference for Ministers of Health for GCC on NCDs, Geneva, May 2011.
- Manama/Bahrain document on Gulf Strategy for Control of NCDs 2011/2012
- Muscat/Oman Declaration on “Economy of NCDs” Jan. 2012

# **Patterns and trends**

## **Diseases Morbidity in UAE**

### **A. Communicable Diseases:**

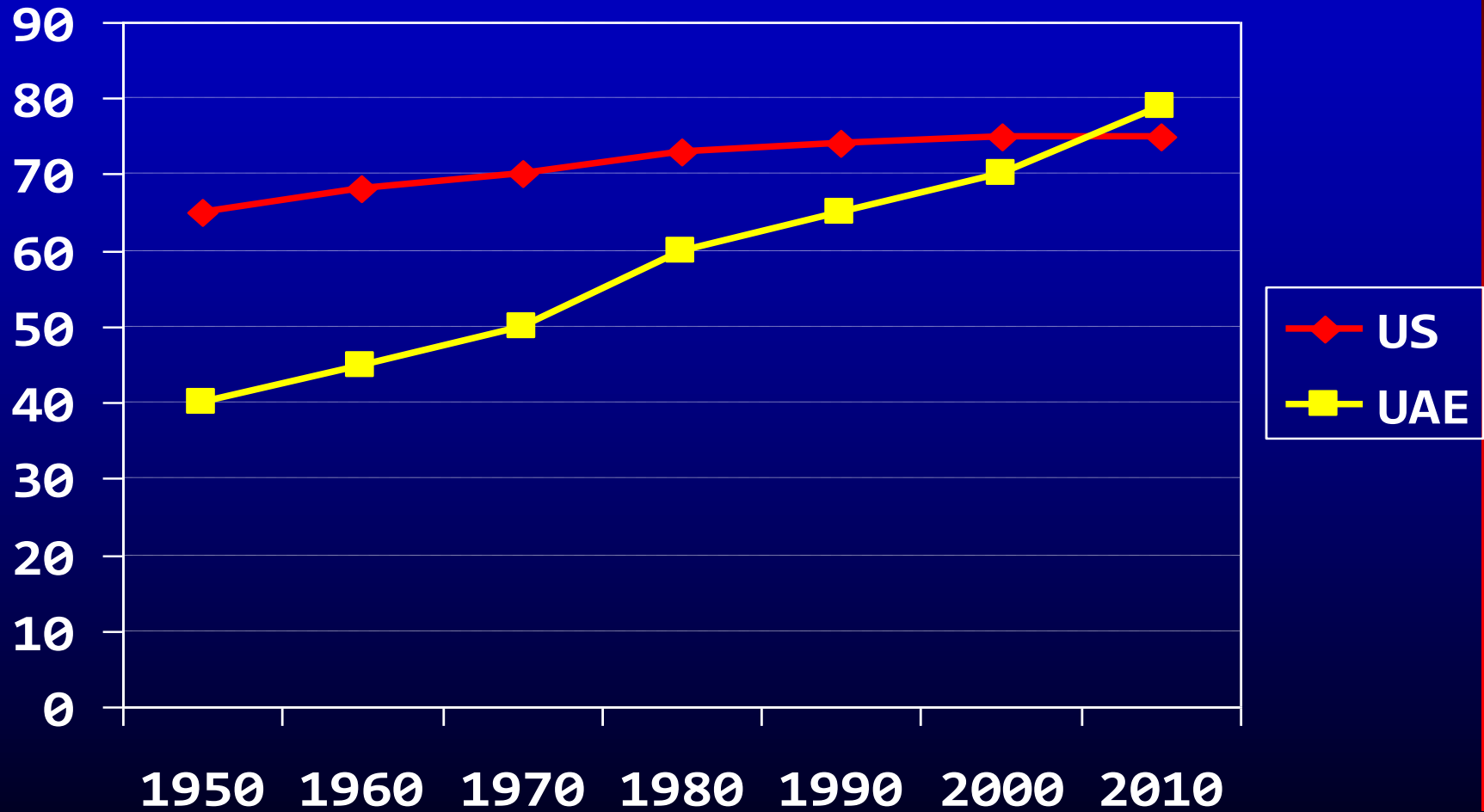
- The National Health Strategy in the UAE in the 70's focused on the prevention and control of communicable diseases.
- The strategy succeeded in reducing the burden of communicable diseases to a large extent.

# **Examples to illustrate this success**

- 1. The National Immunization Program which started in 1981 succeeded in:**
  - a. Control of most of the vaccine preventable diseases.
  - b. It also succeeded in the elimination of neonatal tetanus and poliomyelitis last polio case reported in 1992.
  - c. It also succeeded in the development of a national elimination plan for measles and rubella .
- 2. The country was declared free of Malaria In 2007 by WHO.**
- 3. The country currently being prepared to be declared of IDD's**
- 4. All other communicable diseases in the country witnessed considerable decline during the last 20 years**



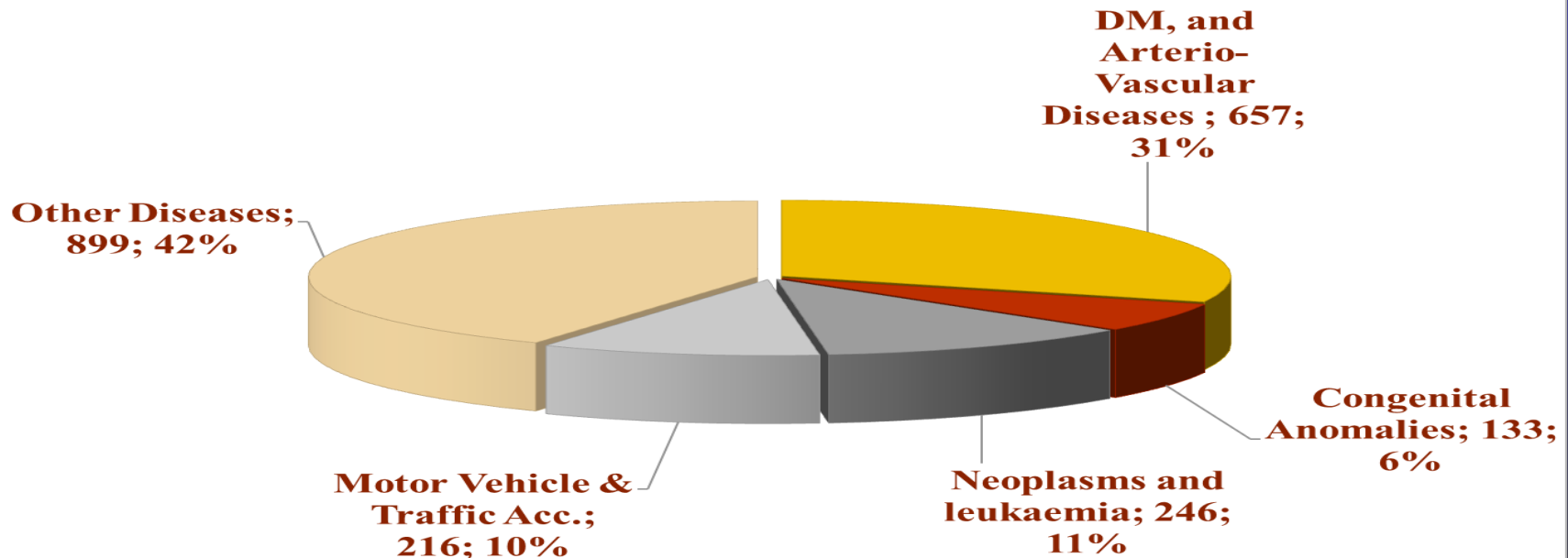
# Life Expectancy USA and UAE 1950 - 2008





## B. NCDs in UAE:

1. Non - Communicable Diseases started to gain more importance as major causes of morbidity and mortality in the country.
2. NCDs continued to be the leading causes of mortality in UAE over the last 10 years.



# The Top 10s

## (Diabetes prevalence %) IDF Atlas 2011

**Table 2.1. Top 10 countries/territories for prevalence\* (%) of diabetes (20-79 years), 2011 and 2030**

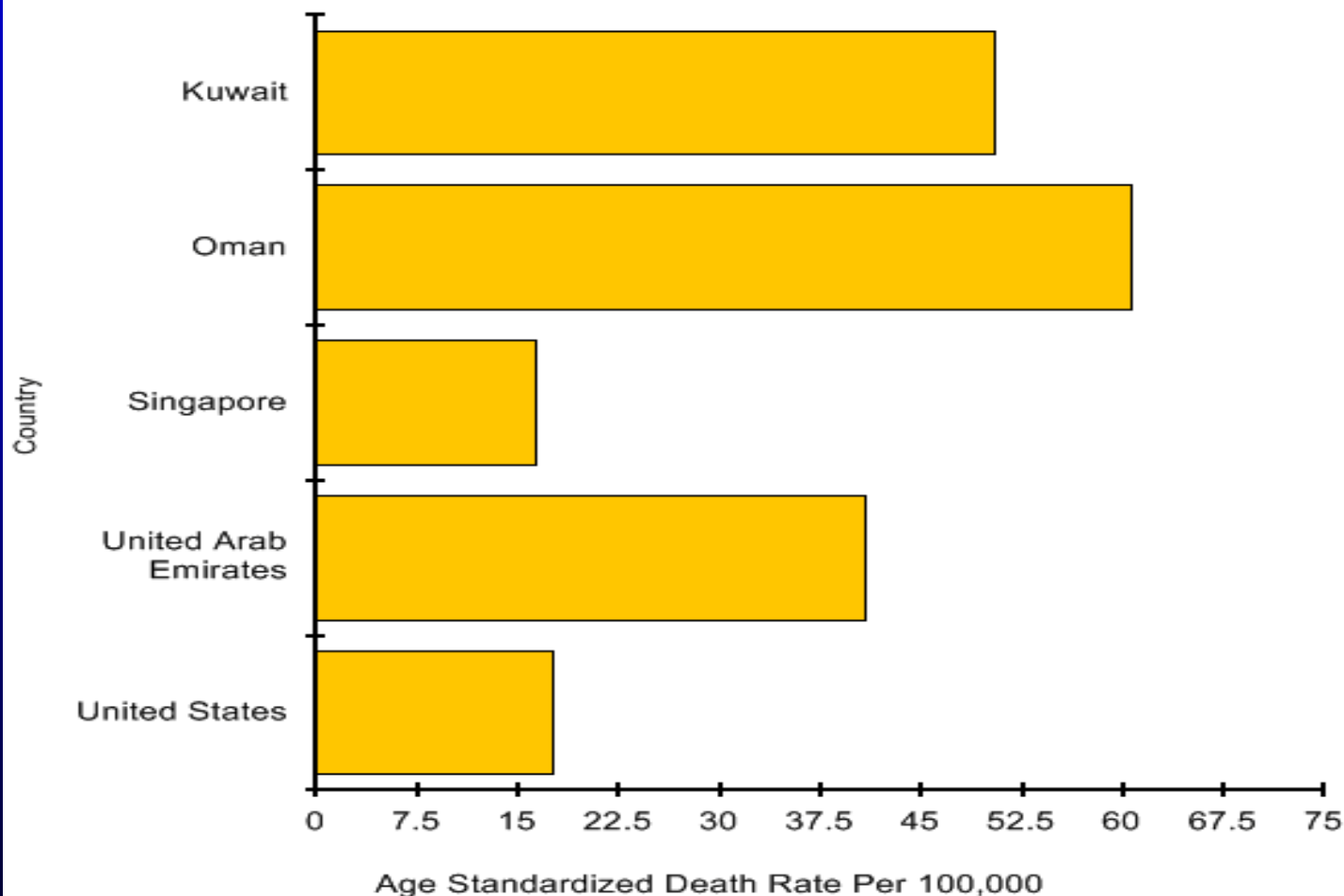
COUNTRY /TERRITORY	2011 PREVALENCE (%)	COUNTRY /TERRITORY	2030 PREVALENCE (%)
1 Kiribati	25.7	1 Kiribati	26.3
2 Marshall Islands	22.2	2 Marshall Islands	23.0
3 Kuwait	21.1	3 Kuwait	21.2
4 Nauru	20.7	4 Tuvalu	20.8
5 Lebanon	20.2	5 Nauru	20.7
6 Qatar	20.2	6 Saudi Arabia	20.6
7 Saudi Arabia	20.0	7 Lebanon	20.4
8 Bahrain	19.9	8 Qatar	20.4
9 Tuvalu	19.5	9 Bahrain	20.2
10 United Arab Emirates	19.2	10 United Arab Emirates	19.8

\*comparative prevalence

# Comparison of Diabetes Death Rate for 100.000 population

Mortality (Deaths) - C. Diabetes (mellitus)  
2002

Both Sexes

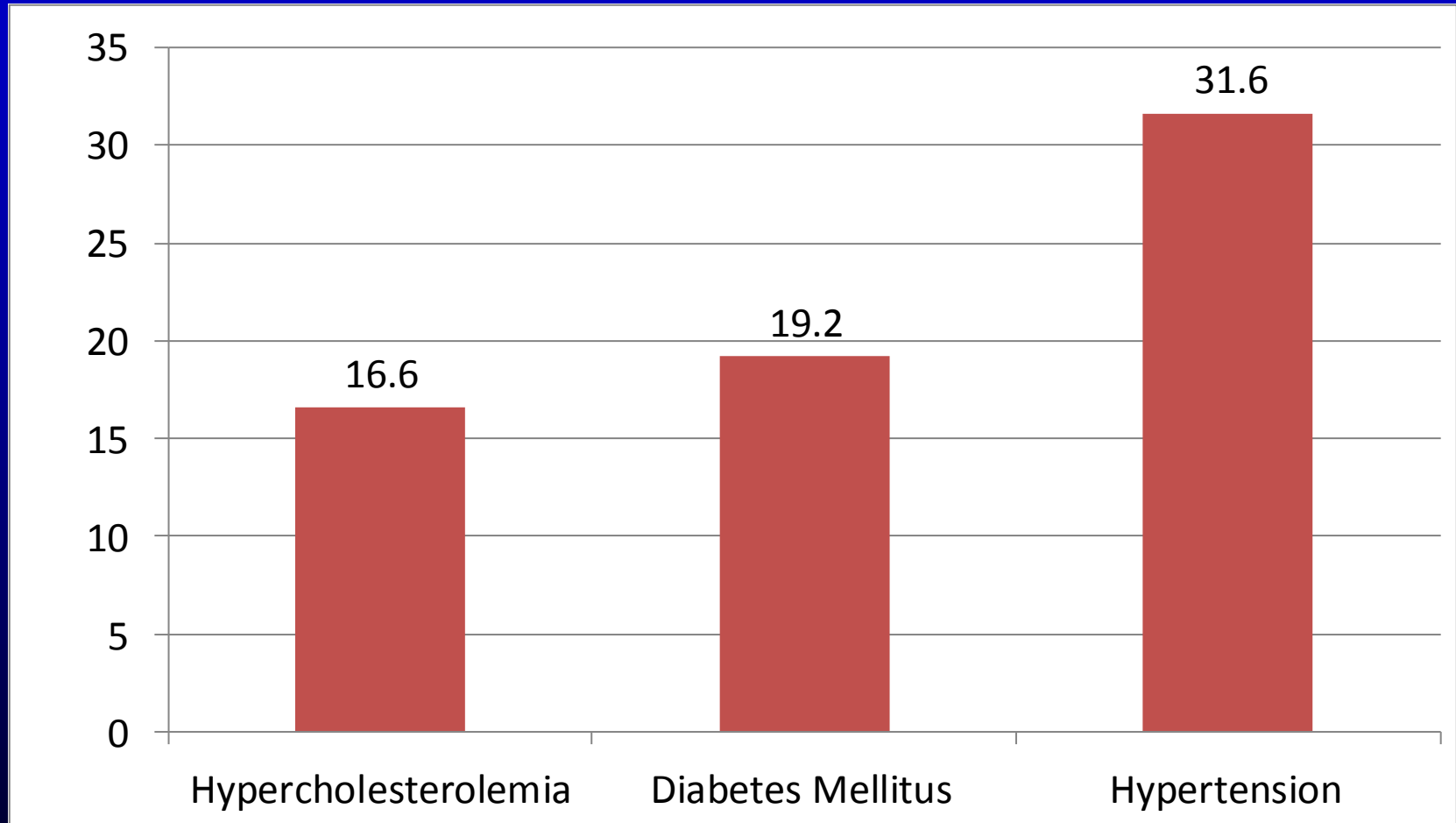


Source: Mathers, C. D. C. Bernard, K. M. Iburg, M. Inoue, D. Ma Fat, K Shibuya, C.

Stein, N. Tomijima, and H. Xu. Global Burden of Disease in 2002: data sources, methods

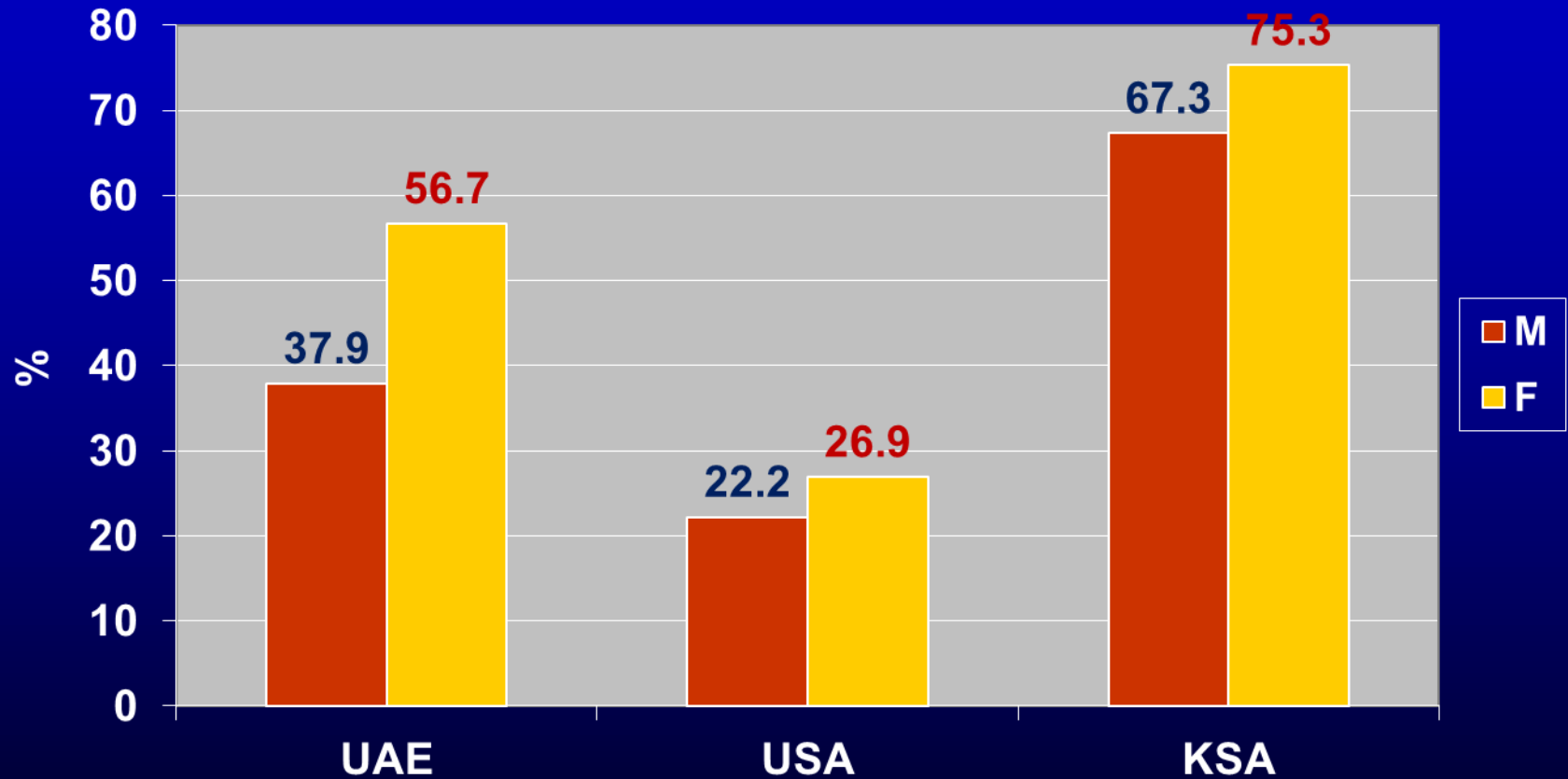
and results. 2003 (<http://www.who.int/infobase> IBrRef: 199998)

# Prevalence of Hypercholesterolemia, Diabetes Mellitus and Hypertension among UAE population



# Trends of the Risk Factors of NCDs

# Prevalence of Physical inactivity in Adults



# Prevalence of Physical inactivity in School Students

Sex		Total % 2010	Total % 2005	The Questions
Females	Males			
13.3 (10.7 – 16.3) P=3.867 Significant	22.5 (19.4 – 25.9) P=1.096 Not Significant	17.2 (15.0 – 19.6) P=2.388 Significant	19.5 (18.4 – 20.6)	Percentage of Students who are physically active ( 60 minutes/Day for the last week) نسبة الطلبة الذين مارسوا نشاطاً بدنياً لمدة لا تقل عن 60 دقيقة يومياً خلال السبعة ايام الماضية
22.5 (18.8 – 26.8) P=62.362 Significant	32.7 (29.6 – 36.0) P=40.164 Significant	26.9 (24.3 – 29.7) P=51.354 Significant	20.07 (18.7 – 21.3)	Percentage of Students who are physically active ( 60 minutes/Day in 5 days for the last week) نسبة الطلبة الذين مارسوا نشاطاً بدنياً بمعدل لا يقل عن 60 دقيقة يومياً في خمسة ايام أو اكثر خلال السبعة ايام الماضية
56.0 (50.7 – 61.1) P=15.235 Significant	45.0 (40.2 – 49.9) P=6.738 Significant	51.3 (47.1 – 55.6) P=11.484 Significant	38.8 (37.2 – 40.5)	Percentage of Students who spent 3 hours or more /day inactive نسبة الطلبة الذين يقضون ثلاث ساعات او اكثر يومياً في أنشطة قليلة الحركة خلال الايام المعتادة

GSHS Data Comparison 2005/2010

# Prevalence of Overweight and Obesity in students Comparison 2005/2010

الجنس Sex		Total % 2010	Total % 2005	السؤال The Question
% اناث Females	% ذكور Males			
36.0 (31.9-40.4)	43.7 39.3-48.1	39.2 (35.7 – 43.0)	21.5 (20.6 – 22.4)	المصابون بزيادة الوزن <b>Overweight</b> ( BMI >1 SD from median for BMI by age and sex)
12.4 (10.0 – 15.3)	19.8 (17.2 – 22.6)	15.5 (13.3 – 18.0)	12.1 (11.2 – 13.0) مع اختلاف المعيار	المصابون بالسمنة <b>Obesity</b> ( BMI +2 SD from median for BMI by age and sex)



# Prevalence of Tobacco use in Youth 2002 - 2005

GYTS results	GYTS 2002			GYTS 2005		
	M	F	T	M	F	T
Prevalence of current user of cigarette *	12.7	3.5	8.0	14.3	2.9	8.9
Prevalence of current user of tobacco other than cigarettes**	15.2	4.5	9.8	22.8	11.2	17.8
Prevalence of current user of all tobacco	-	-	-	29.7	12.6	21.9

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# **Why Are we opting for mHealth to improve Control NCD's in the UAE??**

- 1. Ineffective traditional modalities for reaching and interacting with communities and patients**
- 2. Value of mobile operators**
  - Whole new area of expertise
  - Improve interaction with patients and communities at large
  - Physician perspectives

# Current MOH Initiatives in mHealth

- Aligning with Google maps to provide locations of hospitals and clinics.
- UAE licensed MD registry (have all contact details, license information, and other pertinent details accessible by population)
- Make appointments via mobile phone, which would then send out reminder
- A pharmacy services that lists the unified prices of drugs, and provides generic names or more reasonable prices

- **Health awareness via health tips (in both Arabic and English,)**
- **Pedometer which calculates steps and calories**
- **BMI Calculator (Galaxy, Android, iPhone)**
- **Blood bank registry where patients register blood type so that if there is a shortage, they can reach out and request donations**
- **Immunization tracking and alerts (a parent enters their child's DOB and get the vaccine timeline**
- **Patient portal where patient can access lab results**

# Ongoing discussions to implement new Initiatives

- A pilot study to communicate and interact with selected Diabetic patients from RCDR to assess the effect of mhealth on disease control parameters. (with Du)
- National study for assessment of Diabetes prevalence and its risk factors using galaxy tabs to collect information ( with Du, Sharjah University)

# **On going initiatives in mhealth;**

- 1. Program for control of obesity in school students using mobile applications to educate, interact, intervene and follow up of their conditions. (with Du)**
- 2. Program for diabetes education for patients using effective and convenient mobile applications to send and receive feedback on effective educational programs. ( with Etisalat)**

# Summary

Ministry of Health is recognizing the role of mHealth in:

1. Raising awareness of population
2. Improving patients and communities general health.
3. Decreasing the cost of health care
4. Increasing access to health care specially in remote areas

**Thank you**