Weqaya

Thursday, 27 October 2011
Executive summary

- The GCC has a NCD crisis; Abu Dhabi has been able to leverage its distinctive strengths to create a novel NCD programme, **Weqaya**

- Under Weqaya all consenting adult citizens in Abu Dhabi have been screened once (2008-09, \( n \approx 200,000 \)) for the Framingham CVD risk factors; mobile numbers and email addresses were collected

- There have already been **statistically significant improvements** in proximal performance metrics

- From 2012 screening is repeated every 3 years for all, Weqaya data will be made available through secure **cloud computing**, and a novel Disease Management Programme market will be launched under **Pay for Health**
Overview

- Why did we create Weqaya?
  - What did we discover in the first round of screening?
  - What have we done about it already?
  - What are the plans from 2012 onwards?
Abu Dhabi’s greatest health challenge

UAE: World’s 2nd highest prevalence of diabetes

Implementing the Dubai declaration
GCC Council of Ministers

<table>
<thead>
<tr>
<th>#</th>
<th>Objective</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>National policies, prevention and treatment</td>
<td>Yes, direct</td>
</tr>
<tr>
<td>2</td>
<td>Health awareness</td>
<td>Yes, direct</td>
</tr>
<tr>
<td>3</td>
<td>Promoting a healthy lifestyle</td>
<td>Yes, direct</td>
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<td>4</td>
<td>Women, pregnant women and children</td>
<td>Pending</td>
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<td>5</td>
<td>Empowering patients and promoting dialogue with care providers</td>
<td>Yes, direct</td>
</tr>
<tr>
<td>6</td>
<td>Stopping discrimination</td>
<td>Indirect</td>
</tr>
<tr>
<td>7</td>
<td>Research and studies</td>
<td>Yes, direct</td>
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<tr>
<td>8</td>
<td>Monitoring systems and monitoring health and economic burden</td>
<td>Yes, direct</td>
</tr>
</tbody>
</table>

Addresses at least six of the eight objectives
Overview

- Why did we create Weqaya?
- What did we discover in the first round of screening?
- What have we done about it already?
- What are the plans from 2012 onwards?
Weqaya works...

Highlights
1. Population screening for Framingham CVD risk
2. >94% adult Abu Dhabi citizens screened
3. Contact details collected (mobile and email)
4. Consent for research & follow-up

Learnings
1. Critical to return data quickly
2. Knowing numbers alone is insufficient to change behaviour (of course)

We can ensure everyone knows their numbers...

Screening numbers per month
2008-2010
...but Weqaya results demand action

- 71% screened ≥1 CVD risk factor
- Large proportion unaware — 11,000 diabetics — 27,000 hypertensives — 57,000 dyslipidaemics
- Analysis shows affirmative action could save >3,000 Emirati lives

Source: Sample of 170,000 UAE Nationals in the Emirate screened for Weqaya in 2008-9; Wolfram analysis
Modeling suggests rapid cost increase

Predicted costs of UAE National diabetes treatment, AED

Direct healthcare cost

Societal cost

Source: Al-Maskari, et al. (2010). *Assessment of the direct medical costs of DM and its complications in the UAE; HAAD analysis*
Overview

• Why did we create Weqaya?

• What did we discover in the first round of screening?

• What have we done about it already?

• What are the plans from 2012 onwards?
## Clear targets established

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<tbody>
<tr>
<td><strong>Input</strong></td>
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<tr>
<td>Screening</td>
<td></td>
<td>94%</td>
<td>50%</td>
<td>90%</td>
<td>100%</td>
<td>50%</td>
<td>90%</td>
<td>100%</td>
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<td>90%</td>
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<td><strong>Process</strong></td>
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<tr>
<td>Programme engagement*</td>
<td></td>
<td>6%</td>
<td>30%</td>
<td>50%</td>
<td>60%</td>
<td>75%</td>
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<td>% obesity</td>
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<td>35%</td>
<td>35%</td>
<td>36%</td>
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<td>35%</td>
<td>34%</td>
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<td>33%</td>
<td>32%</td>
<td>31%</td>
<td>28%</td>
<td>26%</td>
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<tr>
<td>% Weqaya population with pre-diabetes</td>
<td></td>
<td>26%</td>
<td>26%</td>
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<td>26%</td>
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<td>24%</td>
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<tr>
<td>% Weqaya population with diabetes</td>
<td></td>
<td>18%</td>
<td>19%</td>
<td>20%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
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<td>19%</td>
<td>18%</td>
<td>18%</td>
<td>15%</td>
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<td>% diabetes with HbA1c &lt;7%</td>
<td></td>
<td>15%</td>
<td>25%</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>75%</td>
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<td>75%</td>
<td>75%</td>
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<td>75%</td>
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<tr>
<td>% smoking</td>
<td></td>
<td>11%</td>
<td>12%</td>
<td>12%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
<td>10%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td>Reduction in predicted incident cardiovascular mortality</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>5%</td>
<td>8%</td>
<td>12%</td>
<td>15%</td>
<td>18%</td>
<td>20%</td>
<td>24%</td>
<td>30%</td>
<td>80%</td>
</tr>
</tbody>
</table>

* Weqaya account activation and/or % eligible population engaged with DMP

### Key points

1. CVD is a chronic condition, thus change expected over medium- to long-term
2. 20 year ambitious targets set in line with international evidence base
Developed by CVD team with POS team
• Based on International Evidence & consensus
• Aim to train physicians to provide consistent evidence-based care for patients and shift focus of care into primary care due to high demand
• Supported by CME accredited training (~200 physicians trained to date)

Standards (mandatory)
• Obesity, e.g., criteria for gastric surgery
• Diabetes, e.g., data reporting requirements
• Smoking cessation
• Gestational diabetes
• Childhood diabetes
• Weqaya screening
• Weqaya follow-up

Guidelines (advisory)
• Obesity
• Diabetes
• Hypertension
• Dyslipidaemia
• Smoking cessation
• High CVD Framingham score
• Available at: www.haad.ae/policiesandregulation
Empowering patients

Weqaya reports
• 110,000 individual reports sent to home addresses
• Individual Weqaya Score and risk factors
• Information, basic actions, brief message, separate information booklet

Helpline (800 61116)
• Booking appointments (SMS reminders and re-call)
• Answering Weqaya programme queries

Interactive website
• Access to Personal Data
• Interactive, recommendations based on risk level
• Appointment booking option
• Links to DMPs
• Links and recommendations for non-health sector interventions
• General information on healthy living for Weqaya and general public
Health impact to date

Impact of Weqaya screening and follow-up on diabetes control

Key points

• One early indicator of impact is diabetes control (% HbA1c)

• National diabetic patients passing through Weqaya (C1) have substantially better control of diabetes than those not passing through Weqaya (C2/C3)

• Consistency of care is also far higher between facilities for diabetes than for management of other chronic disease

* Engagement with care defined as one or more HbA1c tests during period

Source KEH; Data cubes analysis
Two domains of Weqaya action

Healthcare Sector
- Clinical care standards
- Patient empowerment
- Customer-centred services
- Research and Innovation

Health Guardi ans
- Nutrition
- Physical activity
- Employers and schools
- Urban Planning
Overview

• Why did we create Weqaya?

• What did we discover in the first round of screening?

• What have we done about it already?

• What are the plans from 2012 onwards?
1. Ensure everyone knows their numbers by linking Weqaya Screening to Thiqa renewal (from 1 January, 2012)

2. Facilitate smooth processing by spreading Thiqa card renewal throughout the year

3. Empower patients to self care through health data transparency (Weqaya Data Architecture)

4. Establish DMP programmes to improve health for those at risk
Data systems enable secure ubiquity

Sensor
- Data architecture
- Opt-out screening
- Opt-in data sharing

Effector
- Ubiquitous Weqaya programme
- Disease Management Programmes
- Point of decision prompts
**Pay for Quality and Pay for Health**

**Paying for Quality**
- Unit of reference is an encounter (whether fee for service or DRG)
- Based on evidence-based care (pathways and clinical QIs)
- Concrete road map and mechanism set-out in Standard Contract (between Health Insurers and Health Facilities)
- Expectation it will affect base payment by <10%

**Paying for Health**
- Unit of reference is an individual’s health status
- Basis for value creation is a contract/relationship between an individual and a Disease Management Programme (DMP)
- “No health improvement – no money”
3 DMPs each with multiple services

- DMP 1
  - Service 1
  - Service 2
  - Service 3

- DMP 2
  - Service 1
  - Service 2
  - Service 3

- DMP 3
  - Service 1
  - Service 2
  - Service 3

Shared data platform means HAAD can audit effectiveness real-time

“Community” of 9-12 services experimenting with different messaging and channel mix

Diabetes
- 35,000

Pre-diabetes
- 55,000

Other CVD risk factors
- 45,000

No current CVD risk factors
- 55,000
DMP RoI is locked-in by design

In-year savings based on 1% risk reduction (AED1,000) for average Emirati with diabetes

<table>
<thead>
<tr>
<th>Complication</th>
<th>Baseline 10 year CVD risk</th>
<th>Annual cost of complication (US$)</th>
<th>Annual cost of CVD in AD (AED)</th>
<th>Contingent annual fiscal liability of CVD complications per average Emirati</th>
<th>CVD risk if the patient enrolls in DMP</th>
<th>Contingent annual fiscal liability of CVD complications per average Emirati</th>
<th>Annual cost saving per patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular diseases (MI, CVA, CCF)</td>
<td>20%</td>
<td>$69,911</td>
<td>AED 256,573</td>
<td>AED 51,315</td>
<td>19%</td>
<td>AED 48,749</td>
<td>AED 2,566</td>
</tr>
</tbody>
</table>

DMP saves two Dirhams for each Dirham spent (in addition to driving innovation and saving more than 3,000 Emirati lives)
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• Under Weqaya all consenting adult citizens in Abu Dhabi have been screened once (2008-09, n~200,000) for the Framingham CVD risk factors; mobile numbers and email addresses were collected

• There have already been statistically significant improvements in proximal performance metrics

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