



هيئة الصحة
HEALTH AUTHORITY

HAAD Guidelines for The Provision of Cardiovascular Disease Management Programs

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INTRODUCTION

In response to Abu Dhabi's high burden of Cardiovascular Disease (CVD) and Diabetes, the Health Authority Abu Dhabi (HAAD) developed a screening program called 'Weqaya'. Weqaya means prevention or protection in Arabic. The Weqaya program has three major components: Screen, Plan and Act. Weqaya is an ongoing program designed to:

- a. Screen the population for CVD risk factors.
- b. Early diagnosis and management of identified CVD cases.
- c. Provide Disease Management Program (DMP) Interventions that include targeted lifestyle behavioural change like diet, physical activity and tobacco control, to improve the individual's health status. In addition to access to information sources such as; the weqaya website.

HAAD Disease Management Program (DMP) is a system of coordinated healthcare interventions and communications for population with chronic conditions in which patient self-care efforts are significant programs geared to those individuals identified by the Abu Dhabi Weqaya screening Program with a standardized, coordinated set of evidence-based interventions.

Diseases Management Programs (DMPs) are needed to complete the iterative cycle of the Weqaya in order to address the burden of CVD and CVD risk factors identified by Weqaya screening specifically, those with high cardiovascular risk to reduce the morbidity and mortality rates. These Guidelines were established to promote best practice and uniformity of DMP Service Providers within the Emirate of Abu Dhabi.

About this Guideline

Who is this Guideline for?

This Guideline applies to Health Care Providers who are delivering Disease Management Programmes in the Emirates of Abu Dhabi.

How do I follow these Guidelines?

This Guideline represent the view of HAAD, which was arrived after review of evidence based practice. Disease Management Program providers and healthcare professionals involved in the delivery of this program are encouraged to consider this guideline and its recommendations. This Guideline however; does not override the individual responsibility of the treating healthcare professionals to make decisions appropriate to the circumstances of the individual patients.

1. PURPOSE

The purpose in setting out this Guideline is to maximize the delivery of a safe and effective Disease Management Program in the Emirate of Abu Dhabi

2. SCOPE

- 2.1 Define terms used in Disease Management Program (DMP)
- 2.2 Set out recommendations for Health Care Facilities and Providers authorised by HAAD to provide Disease Management in the Emirate of Abu Dhabi
- 2.3 Set out the Case Mix for the Disease Management Program
- 2.4 Set out the performance and evaluation indicators for the Disease Management Program

3. DEFINITIONS

	Category	Definition
3.1	Weqaya Program	A comprehensive population-level intervention targeting the screening of Cardiovascular Disease (CVD) risk factors. The program categorizes screened individuals at normal, medium and high risk of having CVD and/or its risk factor disease/conditions. UAE National adults over 18 years old and with an Abu Dhabi Family Book are currently eligible for the Weqaya Screening Program (Appendix 1).
3.2	Weqaya Website	Weqaya Functional and Data Architecture website which is interactive whereby, individuals who have completed Weqaya screening have access to: <ul style="list-style-type: none">• Personal data related to Weqaya screening parameters;• Input of data from personal devices (e.g. blood pressure monitor, glucose monitor, etc.);• Interactive recommendations based on risk level;• Appointment booking option;• Links to Disease Management Programs;

		<ul style="list-style-type: none"> Links and recommendations for non-clinical interventions regarding lifestyle, nutrition and physical activity and general information on healthy living for Weqaya members and general public.
3.3	Case mix	Patients screened through Weqaya screening program and identified to have high Weqaya cardiovascular risk score \geq 20% ¹ (Appendix 2)
3.4	Disease Management Program (DMP)	Disease Management Program (DMP) is a system of coordinated healthcare interventions and communications for population with chronic conditions in which patient self-care efforts are significant programs geared to those individuals identified by the Abu Dhabi Weqaya screening Program with a standardized, coordinated set of evidence-based interventions.
3.5	Disease Management Program (DMP) Provider	A HAAD-licensed healthcare facility or provider authorized by HAAD to provide Disease Management Programs.
3.6	Disease Management Program (DMP) Healthcare Professional	The DMP healthcare professional educates, supports and monitors the compliance of individuals enrolled in DMP to the care management plan described by the treating healthcare professional.
3.7	Framingham (risk) score	It is a gender-specific algorithm used to estimate the 10-year cardiovascular risk of an individual. Because it gives an indication of the risk of developing cardiovascular disease, it can also indicate who is most likely to benefit from prevention.

¹ High risk - if the Framingham score is \geq 20%. There is a 2 in 10 chance or more chance of developing a cardiovascular disease event within the next 10 years.

4. HAAD RECOMMENDATIONS FOR DISEASE MANAGEMENT PROGRAMS FOR CARDIO- VASCULAR DISEASE

4.1 Recommendation 1: HAAD Authorisation of DMP Providers

4.1.1 All providers of Disease Management Programs in the Emirate of Abu Dhabi should be authorized by HAAD to provide Disease Management Program services.

4.2 Recommendation 2: Eligibility for Enrollment in Disease Management Programs

4.2.1 Individuals enrolled in the Weqaya Screening Program who are identified as high-risk as per **Appendix 2** should be referred to a DMP approved Provider.

4.3 Recommendation 3: Cardiovascular Indicators and Risk Score Calculation

4.3.1 Weqaya Screening Program is a whole population cardiovascular screening program in Emirates of Abu Dhabi. Weqaya screening tests are based on the core Framingham indicators noted below with a few additions, such as, testing for central obesity and family history of premature CVD. The following indicators and risk score calculation are recommended:

4.3.1.1 Self-reported indicators:

4.3.1.1.1 Tobacco smoking (self-reported);

4.3.1.1.2 Personal history of cardiovascular events; and

4.3.1.1.3 Family history of premature cardiovascular Events.

4.3.1.2 Anthropometric measures:

4.3.1.2.1 Height;

4.3.1.2.2 Weight;

4.3.1.2.3 Hip circumference;

4.3.1.2.4 Waist circumference;

4.3.1.2.5 Systolic and Diastolic blood pressure; and

4.3.1.2.6 Body Mass Index (BMI).

4.3.1.3 Blood testing:

4.3.1.3.1 Random glucose;

4.3.1.3.2 Glycosylated hemoglobin (HbA1c);

4.3.1.3.3 Total blood cholesterol; and

4.3.1.3.4 Random high-density lipoprotein cholesterol.

4.3.1.4 General Weqaya Risk-Score Calculation:

The Framingham Risk Score is determined for Weqaya screened population using the Framingham General CVD

10-year Risk Score. The screened individuals will be categorized at normal, medium or high risk of having CVD and/or its risk factor disease/conditions. The risk score can be calculated using the tool available on Weqaya website (<https://weqaya.haad.ae>). The following indicators are used for the calculation of the General Weqaya Risk Score:

- 4.3.1.4.1 Age;
- 4.3.1.4.2 Tobacco smoking status;
- 4.3.1.4.3 Systolic and Diastolic blood pressure;
- 4.3.1.4.4 Glycosylated hemoglobin (HbA1c); and
- 4.3.1.4.5 Total blood cholesterol: HDL ratio.

4.4 Recommendation 4: Case Allocation

4.4.1 Case Allocation:

4.4.1.1 Individuals covered by the Weqaya Program with high Weqaya Score $\geq 20\%$ and/or Cardiovascular Disease (CVD) risk factors are eligible to the enrollment in DMP and will be allocated to a DMP Healthcare Provider.

4.5 Recommendation 5: Cardiovascular Disease Management Services

4.5.1 DMP Providers should:

4.5.1.1 Provide individuals with resources and offer

support and encourage them to remain healthy, prevent complications, and maintain quality of life. DMPs should specifically aim to:

4.4.5.1.1.1 Enhance quality of life, satisfaction, and functional status;

4.4.5.1.1.2 Improve compliance with the treating physician's treatment plan;

4.4.5.1.1.3 Improve communication between the patient, their physician and the multidisciplinary care team;

4.4.5.1.1.4 Facilitate coordinated and holistic health care service provision;

4.4.5.1.1.5 Enhance self-management skills;

4.4.5.1.1.6 Facilitate integration of health care and lifestyle interventions to improve patient outcomes;

4.4.5.1.1.7 Improve outcomes for the condition including level of control, onset of complications and frequency of requirement for healthcare facility care such as hospitalizations and emergency department visits;

- 4.4.5.1.1.8 Improve patient compliance rate;
- 4.5.1.1.9 Reduce non-attendance appointment rate;
- 4.4.5.1.1.10 Improve patient satisfaction, customer service and customer experience;
- 4.4.5.1.1.11 Reduce Hospital Admission rate;
- 4.4.5.1.1.12 Improve patients' clinical outcomes; and
- 4.5.1.2 Provide incentives to encourage the individual to adopt healthy behaviors;
- 4.5.1.3 Provide DMP Information, communication and management resources
- 4.5.1.4 Utilise a range of communication approaches including but not limited to:
 - 4.5.1.4.1 Face-to-face advice, counseling and Education;
 - 4.5.1.4.2 Group meetings;
 - 4.5.1.4.3 Call-center (outbound and inbound calls);
 - 4.5.1.4.4 Mobile communications including SMS, and MMS prompts;
 - 4.5.1.4.5 Mobile applications;
 - 4.5.1.4.6 Online reminder messaging by the patient's health team for medication management, care plan task completion, appointments or general health reminders;
 - 4.5.1.4.7 Internet-based information services (e.g. wirelessly uploaded home glucometer readings with graphical feedback for monitoring the blood (sugar levels)
 - 4.5.1.4.8 Personalized text and video educational 'nuggets' dispensed electronically by the care team;
 - 4.5.1.4.9 Comprehensive patient-specific health status summary report;
 - 4.5.1.4.10 A range of DMP marketing initiatives at individual, group and population levels to increase awareness and retention of case mix.
- 4.5.1.5 Lifestyle Interventions:
 - 4.5.1.5.1 All DMP Services should be tailored for the specific needs of the individuals participating in the program. Service provision may encompass one or more of the following:

- 4.5.1.5.1.1 Modify behaviors to improve health status for example, regular exercise or improvements in diet or a nurse care manager and dietitian providing advice and medication management;
 - 4.5.1.5.1.2 Self-management plan for example, insulin usage record and self-monitoring of blood glucose(SMBG);
 - 4.5.1.5.1.3 Improve compliance with clinical care including: regular assessment, monitoring, and treatment. where applicable; and
 - 4.5.1.5.1.4 Address barriers to effective self-care; and
 - 4.5.1.5.1.5 Health risk assessments.
- 4.5.1.6 DMP Healthcare Providers should:
- 4.5.1.6.1 Set out their responsibilities and scope of service to the enrolled individual.
 - 4.5.1.6.2 Make use of a multidisciplinary team who are licensed by HAAD including but not limited to: physicians, pharmacists, nurses, health coaches, dieticians, and psychologists who are privileged by their healthcare facility to educate and help individuals manage their conditions. Healthcare professionals may also work with support-service providers to meet any gaps in the care team, such as the need for additional nutrition screening.
 - 4.5.1.6.3 Conduct routine reporting and feedback between patients, physicians, and other providers in the care team in order to assure that patient conditions are being effectively managed and best care is being provided to meet the patients need.
 - 4.5.1.6.3.1 Integrate closely with HAAD Licensed Healthcare Facilities in accordance with the applicable HAAD Policies and Standards;

4.5.1.6.3.2 DMP Providers must not, themselves, provide Clinical Interventions.

4.5.1.7 Have in place documentation of all DMP-related policies and procedures regarding DMP data documentation, DMP interventions channels, DMP healthcare professional training and development, internal auditing processes, performance and outcomes evaluation and reporting.

4.5.1.8 Monitor and evaluate the efficiency and effectiveness of DMP interventions through regular audits and internal performance indicators that are aligned to international best practice.

4.6 **Recommendation 6: Reporting of Performance Indicators to HAAD**

In order to benchmark the provision of DMP services it is recommended for all DMP Providers to:

4.6.1 Submit an accurate summary of their performance against HAAD KPIs;

4.6.2 Evaluate the efficiency of their processes along with the the effectiveness of their interventions; and

4.6.3 Routinely monitor, evaluate and report to HAAD “Process and Outcome (non-clinical and clinical) indicators”. As set out in **Appendix 3A and Appendix 3B**, reporting to HAAD should be on a monthly basis.

4.7 **Recommendation 7: Planning for Data Collection and Submission**

4.7.1 DMP Providers should follow HAAD Policies and Standards related to data, including the HAAD Data Standards and Procedures (available at: <http://www.haad.ae/haad/tabid/1505/Default.aspx>) applicable UAE Laws.

4.7.2 DMP Providers should ensure health devices used in the delivery of DMP Services are in accordance with the relevant HAAD standards to and ensure their integration within the Weqaya Functional and Data Architecture.

4.7.3 DMP Providers should make use of the HAAD health database for clinical information, and ensure the submission of the data on DMP services as required in the HAAD Data Standards and Procedures (available at: <http://www.haad.ae/haad/tabid/1505/Default.aspx>) and applicable UAE Laws.

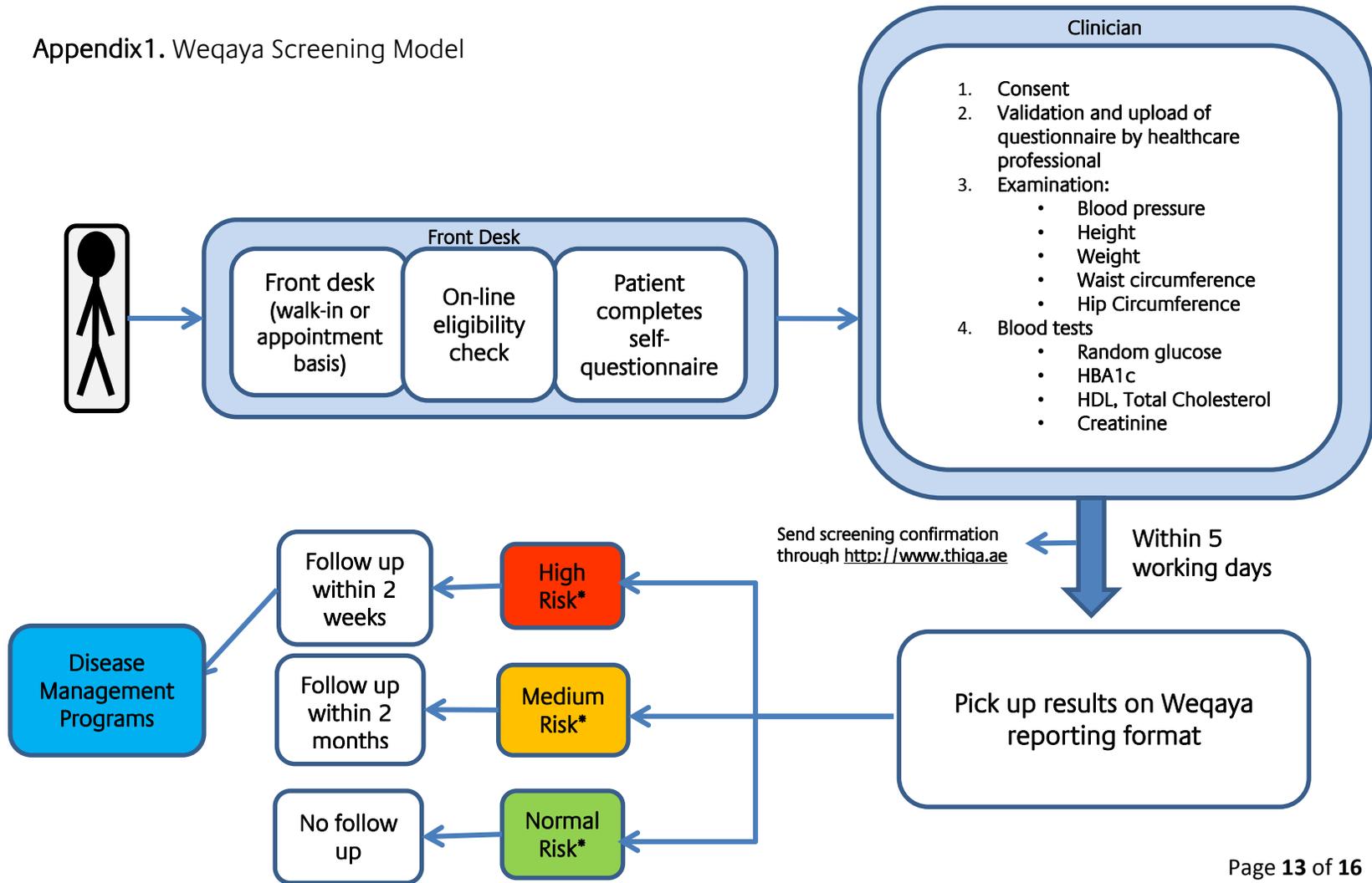
4.7.4 DMP Providers should adopt HAAD IT infrastructure and/or applications, and may opt to use another system (either their own or provided by a third party);

4.7.4.1 Where other systems are used DMP Providers should ensure they comply HAAD Policies and Standards related to data (available at: <http://www.haad.ae/haad/tabid/1505/Default.aspx>) and applicable UAE Laws.

4.7.5 DMP Providers may create their own systems (in addition to those provided by HAAD) for the collection and sharing of specific behavioral data, for example with regards to nutrition and/or physical activity. Data collection should however; comply with the HAAD Policies and Standards and UAE Laws.

APPENDIX

Appendix1. Weqaya Screening Model



* Risk categories are identified in the Weqaya follow up standard

Appendix 2. Weqaya Screening Criteria for High Risk Score Individuals

High Risk Category	Colour	Value
High Framingham ² (Weqaya) Cardiovascular risk Score		≥ 20%
Diabetes (HbA1c)		≥ 6.5%
High Blood Pressure (mmHg)		≥140/90
High Total Cholesterol: HDL ratio		≥5
Morbidly Obese (BMI)		≥ 40
Obese (BMI)		≥ 30
Smoker		Smoker

² Framingham Risk Score is a risk assessment tool for estimating a patient's 10-year risk of developing cardiovascular disease

Appendix 3. Disease Management Program Performance Indicators

(3-A) Process and outcome Indicators

Indicator	Definition	Acceptable Level	Target Level
Acceptance Rate	The percentage of individuals eligible for enrollment in DMP who were invited and accepted to enroll in DMP	70%	80%
Coach:Patient Ratio	The ratio of DMP healthcare professional to enrolled individuals	1:200	1:100
Retention Rate	The percentage of enrolled individuals who maintained the enrollment in the DMP for more than 12 months	80%	90%
Satisfaction Rate	The percentage of enrolled individuals who state their satisfaction with the DMP service	80%	85%
Performance Reporting	The percentage of enrolled individuals' performance improvement reports that are submitted to their treating physician twice annually	70%	80%

(3-B) Clinical Outcomes Indicators

Measurement	Expected Outcome
Hemoglobin A1C % (HbA1C)	Hba1C reduction or control
Blood Cholesterol Level	<ul style="list-style-type: none">• Total Blood Cholesterol level reduction or control• LDL Cholesterol level reduction or control• Triglycerides level reduction or control
Blood Pressure (BP)	Blood Pressure reduction or control
Body Mass Index (BMI)	Body Mass Index optimization
Smoking Status	Maintaining a non-smoking health status