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Guidelines for Reporting Telehealth Key Performance Indicators Version 3.0

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Health Regulation Sector

Dubai Health Authority

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INTRODUCTION

The Health Regulation Sector (HRS) plays a key role in regulating the health sector. HRS is mandated by the Dubai Health Authority (DHA) Law No. (6) of the year (2018) with its amendments pertaining to DHA, to undertake several functions including but not limited to:

- Developing regulation, policy, standards, guidelines to improve quality and patient safety and promote the growth and development of the health sector;
- Licensure and inspection of health facilities as well as healthcare professionals and ensuring compliance to best practice;
- Managing patient complaints and assuring patient and physician rights are upheld;
- Governing the use of narcotics, controlled and semi-controlled medications;
- Strengthening health tourism and assuring ongoing growth; and
- Assuring management of health informatics, e-health and promoting innovation.

The Guidelines for Reporting Telehealth KPIs aims to fulfil the following overarching Dubai Health Sector Strategy 2026:

- Pioneering Human-centred health system to promote trust, safety, quality and care for patients and their families.
- Make Dubai a lighthouse for healthcare governance, integration and regulation.
- Become a global digital health hub.

EXECUTIVE SUMMARY

Telehealth continues to be a promising area globally to effectively manage the healthcare system while balancing cost and access. Increased evidence supports its effectiveness in several clinical scenarios and the World Health Organization considers it as a key opportunity in the journey to universal health coverage.

Dubai Health Authority has been regulating Telehealth services through a set of regulatory documents; including the Standards for Telehealth Services which specifies the minimum requirements for Telehealth provision and mandates the reporting of a set of Key Performance Indicators.

This document provides a guidance to healthcare facilities providing Telehealth services on reporting DHA Key Performance Indicators (KPIs) and service measures as follows:

1. Background information & Demographic data
2. Access measures
 - Percentage of Referrals to in-person Consultation.
 - Percentage of Telehealth Urgent/Emergency Referrals.
 - Percentage of New Mental Health Encounter (and New Telehealth Encounter).
 - Percentage of Outpatient Visits delivered through Telehealth.
3. Quality measures
 - Percentage of Medication Prescription through Teleconsultation.
 - Percentage of Antibiotics Prescription through Teleconsultation.
 - Percentage of Telehealth Patient Satisfaction.
 - Percentage of Telehealth Provider Satisfaction.

All health facilities providing Telehealth services should have internal data collection and continuous monitoring procedures. Telehealth providers shall report data on annual basis to DHA using the electronic KPI data tool.

Key updates in Version 3 are as follows:

1. Updated definitions and definition of telehealth encounter added to clarify scope.
2. Section on required background and demographic data has been added.
3. Reporting frequency is updated to annual and reporting method is through the link provided in these Guidelines.
4. KPIs definitions and calculation have been revised to capture key service areas.
5. Calculation and target of Percentage of Antibiotics Prescription through Teleconsultation has been updated.
6. Addition of a new measure to capture new mental health and new telehealth encounters.
7. Addition of a target for Telehealth encounter share of all outpatient encounters in facilities with add-on telehealth service under Percentage of Outpatient Visits delivered through Telehealth.
8. Percentage of Telehealth Staff Satisfaction renamed as Percentage of Telehealth Provider Satisfaction.

DEFINITIONS

Teleconsultation: is the use of information and communication technologies—such as audio and/or video—to provide medical advice, diagnosis, and treatment when the physician and patient (or other healthcare providers) are in different locations. It may occur between a physician and a patient, between two physicians, or in a joint setting involving multiple parties. Teleconsultation enhances accessibility to healthcare, supports continuity of care, and enables timely medical decision-making across distances.

Telehealth: is defined by the World Health Organization (WHO) as “The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities”

Telehealth Encounter: in this Guidelines refers to interactions between licensed health providers among each other, and with patients through telehealth. These encounters can be physician-led or led by other health professionals as per DHA Standards for Telehealth Services such as, but not limited to physician-patient, nurse- physician, physician-physician tele-consultations, tele-monitoring, tele-prescription, dietetic, health education, and psychology/ psychotherapy telehealth services.

Tele-prescribing: The practice by which a DHA-licensed physician remotely prescribes treatment following a teleconsultation or based on a previous in-person clinical assessment, provided the prescription is issued within the appropriate timeframe for the specified

condition or disease. It ensures continuity of care while maintaining prescribing safety and compliance.

ABBREVIATIONS

DHA : Dubai Health Authority

HRS : Health Regulation Sector

KPI : Key Performance Indicator

NHS : National Health Services

OECD : Organisation for Economic Co-operation and Development

WHO : World Health Organization

1. BACKGROUND

Known as the use of virtual technology and telecommunication to deliver healthcare services outside of traditional healthcare facilities and without a physical examination, telehealth has been cited as a key opportunity to improve healthcare access and affordability. Local and international reports indicate the service growth in supply and demand and its benefit in improving access to healthcare assessment, diagnosis, treatment, referral and health education especially for vulnerable populations and in the management of chronic diseases.

Emerging evidence increasingly highlights how telehealth can deliver high-quality care when supported by strong regulatory oversight. Ensuring quality in telehealth services is crucial for safe and effective healthcare delivery, and this is well established in the literature. One key approach to maintaining quality is using key performance indicators, which help measure progress toward specific goals and provide valuable insights into the improvement of healthcare services.

Dubai Health Authority (DHA) has been regulating telehealth services since 2019 through the Standards for Telehealth Services which sets out minimum service requirements and requires telehealth providers to report specific Key Performance Indicators (KPIs).

This Guidelines aims to assist telehealth providers in understanding DHA's Telehealth KPIs and their reporting method.

2. SCOPE

- 2.1. Measurement and reporting of KPIs by DHA licensed facilities providing telehealth services.

3. PURPOSE

- 3.1. Establish unified approach to monitoring telehealth in the Emirate of Dubai.
- 3.2. Ensure quality monitoring and improvement among telehealth providers.
- 3.3. Improve telehealth adoption and support digital health expansion.
- 3.4. Inform policy-decision making.

4. APPLICABILITY

- 4.1. All DHA licensed facilities providing Telehealth services.

5. GENERAL PROCEDURES

- 5.1. All DHA licensed facilities providing Telehealth services are required to report the indicators specific to the scope of telehealth services.
- 5.2. Each facility is encouraged to assign a quality lead to be responsible for reporting the indicators to DHA.
- 5.3. If the KPI is not applicable to the range of services provided or not captured by the facility, quality leads should mark the field as “NA”.
 - 5.3.1 If the data value of the field is zero for the reported period, quality lead should mark it as “None”.
- 5.4. Telehealth providers must consider the following in data collection:
 - 5.4.1 Decide which KPI is applicable to the facility based on the scope of services.
 - 5.4.2 Assure data collection lead(s) are adequately skilled and resourced.
 - 5.4.3 Create a data collection plan based on methodology and available resources.
 - 5.4.4 Assure adequate data collection systems and tools are in place.
 - 5.4.5 Back up the data and assure protection of data integrity.

5.5. Managers of telehealth services must ensure having internal data collection and continuous monitoring procedures.

5.6. Data Analysis and Submission:

5.6.1 Quality leads must ensure data is clean and analysed for reliability and accuracy before submission.

5.6.2 Data reporting and submission to DHA should be on an annual basis.

5.6.3 Submission deadline is as follows:

a. All year data verification & reporting (Q1-Q4 data) - 5-14 Jan.

5.6.4 Each report shall cover data from the respective year and reflect performance during that period.

5.6.5 Submission should be through the following link:

https://msurvey.government.ae/survey/Dubai_Health_Authority/IOL

- Or scan the QR code



5.6.6 Data submission related queries can be communicated with the Monitoring and Evaluation Section (MonitoringKPIs@dha.gov.ae).

5.7 Managers of telehealth services are encouraged to have additional measures internally for quality monitoring and to review findings with the respective teams to promote performance improvement.

6 REQUIRED BACKGROUND AND DEMOGRAPHIC DATA

- 6.1 Facility name, associated facilities, and quality lead contact information.
- 6.2 Percentage of physicians providing telehealth in the facility/ group.
 - 6.2.1 The measure looks at physicians (full-time and part-time) who are trained, have access and utilize telehealth in the facility or group from all physicians (full-time and part-time) linked to the facility/ group.
- 6.3 Top 5 utilized physician specialties in Telehealth.
- 6.4 Telehealth User Demographic Data:
 - 6.4.1 Percentage of telehealth calls from Outside Dubai
 - a. Stratified by calls from other Emirates, international callers, and medical tourists.
 - 6.4.2 Distribution of telehealth calls by main disease area as per selected ICD-10 codes.
 - a. Diseases of the Circulatory System (I00-I99).
 - b. Diseases of the Musculoskeletal System (M00-M99).
 - c. Diseases of the Respiratory System (J00-J99).
 - d. Diseases of the Digestive System (K00-K99).
 - e. Endocrine, Nutritional and Metabolic diseases (E00-E90).
 - f. Mental and Behavioral Disorders (F00-F99).
 - g. Diseases of the Genitourinary System (N00-N99).
 - h. Diseases of the Nervous System (G00-G99).
 - i. Certain Infectious Diseases (A00-B99)

6.4.3 Percentage of telehealth calls covered by insurance.

6.4.4 Percentage of telehealth calls by Emiratis.

6.4.5 Percentage of telehealth calls by user age group.

- a. Children, (0-14 years old).
- b. Youth (15-24 years old).
- c. Adults (25-64 years old).
- d. Seniors (65+ years old).

7 PERFORMANCE INDICATORS

7.1 ACCESS

7.1.1 Percentage of Referrals to in-Person Consultation

Percentage of Referrals to in-person Consultation	
Main Domain:	Access.
Subdomain:	Telehealth Referrals.
Indicator Definition:	The percentage of teleconsultations resulting in a referral to see a physician for face-to-face consultation (for primary and secondary/ specialized care) of all completed teleconsultations. Referrals shall align with DHA Telehealth Clinical Guidelines for the Virtual Management of Diseases where applicable.
Calculation:	<p><u>Numerator:</u> Number of referrals made through teleconsultation to see a physician for an in-person consultation.</p> <ul style="list-style-type: none"> Exclusions: referrals to non-physician led services (laboratory, diagnostics, and others). <p><u>Denominator:</u> Total number of completed teleconsultations.</p> <ul style="list-style-type: none"> Exclusions: Incomplete calls, non-physician led teleconsultations.
Target:	NA.
Methodology:	Numerator/ denominator x100.
Measuring Unit:	Percentage.
Collection Frequency:	Annual.
Desired Direction:	Lower is better.
Rationale:	Metric of access and effectiveness in reducing unnecessary in-person physician visits.
KPI Source:	DHA, WHO, NHS.

7.1.2 Percentage of Telehealth Urgent/Emergency Referrals

Percentage of Telehealth Urgent/ Emergency Referrals	
Main Domain:	Access.
Subdomain:	Telehealth Referrals.
Indicator Definition:	The percentage of referrals marked urgent/emergency by a physician during teleconsultation of all completed teleconsultation calls.
Calculation:	<p><u>Numerator:</u> Number of urgent/emergency flagged referrals made by a physician during teleconsultation.</p> <ul style="list-style-type: none"> Exclusions: referrals marked as non-urgent/ non-emergency, laboratory referrals; and diagnostic referrals. <p><u>Denominator:</u> Total number of completed teleconsultations.</p> <ul style="list-style-type: none"> Exclusions: Incomplete calls, non-physician led teleconsultations.
Target:	NA.
Methodology:	Numerator/ denominator x100.
Measuring Unit:	Percentage.
Collection Frequency:	Annual.
Desired Direction:	Lower is better.
Rationale:	Metric of access and effectiveness.
KPI Source:	DHA, AHRQ, NHS.

7.1.3 Percentage of New Mental Health Encounters

Percentage of New Mental Health Encounters	
Main Domain:	Access.
Subdomain:	Mental health.
Indicator Definition:	The percentage of new/ first encounters of a patient with the telehealth provider for mental health services of all new/ first telehealth encounters.
Calculation:	<p><u>Numerator:</u> Number of new telehealth encounter related to mental health.</p> <ul style="list-style-type: none"> Exclusions: non-mental health related calls, follow-up calls, incomplete calls. <p><u>Denominator:</u> Total number of new telehealth encounters (physician and non-physician led).</p> <ul style="list-style-type: none"> Exclusions: follow-up calls, incomplete calls.
Target:	NA.
Methodology:	Numerator/ denominator x100.
Measuring Unit:	Percentage of new mental health encounter of all new telehealth encounters.
Collection Frequency:	Annual.
Desired Direction:	Higher is better.
Rationale:	Metric of access and efficiency in serving society needs.
KPI Source:	DHA, OECD, CMS.

7.1.4 Percentage of Outpatient Visits delivered through Telehealth

Percentage of Outpatient Visits delivered through Telehealth	
Main Domain:	Access.
Subdomain:	Service Expansion.
Indicator Definition:	The percentage of telehealth encounters (physician and non-physician-led) of all outpatient visits/ encounters (physician and non-physician-led) for health facilities providing telehealth as an add-on service.
Calculation:	<p><u>Numerator:</u> Total number of telehealth encounters (physician and non-physician led).</p> <ul style="list-style-type: none"> Exclusions: incomplete calls. <p><u>Denominator:</u> Total number of outpatient visits/ encounters in the health facility/ group with telehealth as add-on (including home health visits).</p>
Target:	≥5% for facilities with add-on services.
Methodology:	Numerator/ denominator x100.
Measuring Unit:	Percentage of telehealth encounters of all outpatient visits in health facilities with telehealth as add-on service.
Collection Frequency:	Annual.
Desired Direction:	Higher is better.
Rationale:	Metric of access and efficiency in serving society needs.
KPI Source:	DHA, OECD, CMS.

7.2 QUALITY

7.2.1 Percentage of Medication Prescription through Teleconsultation

Percentage of Medication Prescription through Teleconsultation	
Main Domain:	Quality.
Subdomain:	Telehealth.
Indicator Definition:	<p>Percentage of teleconsultations that resulted in a medication prescription of all completed teleconsultation calls.</p> <p>Note: Multiple medication items prescribed within the same teleconsultation are reported as one prescription.</p>
Calculation:	<p><u>Numerator:</u> Number of teleconsultations resulting in a tele-prescription.</p> <ul style="list-style-type: none"> Exclusions: prescription of medical devices; and sick leave. <p><u>Denominator:</u> Total number of completed teleconsultation calls.</p> <ul style="list-style-type: none"> Exclusions: incomplete calls.
Target:	NA.
Methodology:	Numerator/ denominator x100.
Measuring Unit:	Percentage.
Collection Frequency:	Annual.
Desired Direction:	NA.
Rationale:	Metric of effectiveness and safety.
Source:	DHA, CMS.

7.2.2 Percentage of Antibiotic Prescription through Teleconsultation

Percentage of Antibiotic Prescription through Teleconsultation	
Main Domain:	Quality.
Subdomain:	Telehealth.
Indicator Definition:	<p>Percentage of teleconsultations that resulted in antibiotic prescription of all completed teleconsultation calls.</p> <p>Note: Multiple antibiotic items prescribed within the same teleconsultation are reported as one.</p>
Calculation:	<p><u>Numerator</u>: Number of teleconsultations resulting in antibiotic tele-prescription</p> <p><u>Inclusion</u>: Oral, Parenteral/Injectable Antibiotics</p> <p><u>Exclusion</u>:</p> <ul style="list-style-type: none"> Topical formulations, Eye and Ear Drops, Pessaries/Ovules, and Suppositories. <p><u>Denominator</u>: Total number of completed teleconsultation calls.</p> <ul style="list-style-type: none"> Exclusions: incomplete calls.
Target:	<10% by 2027.
Methodology:	Numerator/ denominator x100.
Measuring Unit:	Percentage.
Collection Frequency:	Annual.
Desired Direction:	Lower is better.
Rationale:	Metric of effectiveness and safety.
Source:	DHA, WHO, Dubai AMR National Action Plan (2023–2027).

7.2.3 Percentage of Telehealth Patient Satisfaction

Percentage of Telehealth Patient Satisfaction	
Main Domain:	Quality.
Subdomain:	Telehealth.
Indicator Definition:	Patient satisfaction rate following the use of telehealth services.
Calculation:	<p><u>Numerator:</u> Sum score for patients who assessed the services received by telehealth.</p> <p><u>Denominator:</u> Total number of patients who responded to the Telehealth satisfaction survey.</p>
Target:	90%.
Methodology:	Numerator/ denominator (normalized by the rating scale)x100.
Measuring Unit:	Percentage of patients satisfied with telehealth services.
Collection Frequency:	Annual.
Desired Direction:	Higher is better.
Rationale:	Metric of satisfaction.
Source:	DHA and WHO.

7.2.4 Percentage of Telehealth Provider Satisfaction

Percentage of Telehealth Provider Satisfaction	
Main Domain:	Quality.
Subdomain:	Telehealth.
Indicator Definition:	Satisfaction rate of health professionals who provided telehealth service.
Calculation:	<p><u>Numerator:</u> Sum score for telehealth professionals who assessed their satisfaction with telehealth services.</p> <ul style="list-style-type: none"> Exclusions: Scores of non-telehealth professionals. <p><u>Denominator:</u> Total number of health professionals who responded to the Telehealth satisfaction survey.</p> <ul style="list-style-type: none"> Exclusions: non-telehealth staff.
Target:	90%.
Methodology:	Numerator/ denominator (normalized by the rating scale) x100.
Measuring Unit:	Percentage of health professionals satisfied with providing telehealth.
Collection Frequency:	Annual.
Desired Direction:	Higher is better.
Rationale:	Metric of satisfaction.
Source:	DHA and WHO.

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