



BSI Standards Publication

# Health informatics — Survey of mHealth projects in low and middle income countries (LMIC)

**National foreword**

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**Health informatics — Survey of  
mHealth projects in low and middle  
income countries (LMIC)**

*Informatique de santé — Étude de projets de santé mobile dans les  
pays à revenu bas et moyen*





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# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Symbols and abbreviated terms</b> .....	<b>2</b>
<b>5 mHealth survey around the world</b> .....	<b>3</b>
5.1 Africa.....	3
5.2 Asia.....	4
5.3 South America.....	6
<b>6 mHealth use cases in LMIC</b> .....	<b>7</b>
6.1 Education and awareness.....	7
6.2 Remote data collection.....	7
6.3 Remote monitoring.....	8
6.4 Communication and training for healthcare workers.....	8
6.5 Disease and epidemic outbreak tracking.....	8
6.6 Diagnostics and treatment support.....	9
6.7 Sharing a medical image annotated with a region of interest.....	9
<b>7 Interoperable mHealth frameworks survey for LMIC</b> .....	<b>9</b>
7.1 ISO 14639 (all parts).....	9
7.2 SA (Standards Australia) Handbook 137, 138.....	10
7.3 HL7 Services-Aware Interoperability Framework (SAIF).....	11
7.4 HISA (Health Informatics Service Architecture) ISO 12967.....	11
<b>Bibliography</b> .....	<b>13</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

The committee responsible for this document is ISO/TC 215, *Health Informatics*.

## Introduction

Mobile Health (mHealth) is a hot topic in the health information technology (IT) industry because it can make a big difference in healthcare services. The United Nations (UN) and World Health Organization (WHO) are interested in mHealth technology to help overcome the current low quality healthcare services in low and middle income countries (LMIC).

The UN describes use cases that are applicable to mHealth in LMIC: Education and Awareness; Remote Data Collection; Remote Monitoring; Communication and Training for Healthcare Workers; Disease and Epidemic Outbreak Tracking; and Diagnostics and Treatment Support. WHO also describes use cases: Health call centres/Healthcare telephone help line; Emergency toll-free telephone services; Treatment compliance; Appointment reminders; Community mobilization and health promotion; Raising awareness; Mobile telemedicine; Public health emergencies; Health surveys and surveillance; Patient monitoring; Information Initiatives; Decision support systems; and Patient records. For more use cases, see References [1] and [2].

There are several eHealth frameworks already developed by a number of organizations such as Health Level Seven (HL7), ISO/TC215, CEN/TC251, and Standards Australia (SA). Before suggesting an interoperable mHealth framework, currently available eHealth frameworks are surveyed and investigated to recognize how suitable each eHealth framework is for mHealth.



# Health informatics — Survey of mHealth projects in low and middle income countries (LMIC)

## 1 Scope

This Technical Report surveys ongoing national mHealth projects in LMIC, to which some emerging technologies such as zero configuration and proximity computing are applicable, especially when the information and communication technology (ICT) infrastructure is not established in those countries.

The scope is constrained to mHealth use cases and technologies for information and communication infrastructures that are useful for LMICs. In addition, the purpose of this Technical Report is to survey not only national mHealth projects in LMICs, but also possible mHealth frameworks that might be used.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **clinician**

health professional who delivers health services directly to a patient/client

### 3.2

#### **patient**

individual person that is a subject of care

### 3.3

#### **HIV/AIDS**

#### **human immunodeficiency virus infection**

#### **acquired immunodeficiency syndrome**

disease of the human immune immunodeficiency virus

### 3.4

#### **SIM card**

#### **subscriber identity module**

#### **subscriber identification module**

#### **(SIM)**

integrated circuit that securely stores the international mobile subscriber identity (IMSI) and the related key used to identify and authenticate subscribers on mobile telephony devices (such as mobile phones and computers)

### 3.5

#### **infrastructure**

basic physical and organizational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function