



# BE HE@LTHY BE MOBILE

A handbook on how to implement mDementia

## Be He@lthy, Be Mobile: a handbook on how to implement mDementia

ISBN (WHO) 978-92-4-001996-6 (electronic version) ISBN (WHO) 978-92-4-001997-3 (print version) ISBN (ITU) 978-92-61-33161-0 (print version) ISBN (ITU) 978-92-61-33171-9 (electronic version) ISBN (ITU) 978-92-61-33181-8 (epub version) ISBN (ITU) 978-92-61-33191-7 (mobi version)

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**Suggested citation.** Be He@lthy, Be Mobile: a handbook on how to implement mDementia. Geneva: World Health Organization and International Telecommunication Union, 2021. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris

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**Layout and design:** Optima Graphic Design Consultants Ltd.

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## **Acknowledgements**

This handbook was created through a collaboration between The World Health Organization (WHO) Department of Digital Health and Innovation, under the leadership of the Chief Scientist's Office and Dr Soumya Swaminathan, and the WHO Department of Mental Health and Substance Use jointly with the Development Bureau of International Telecommunications Union (ITU). WHO and ITU gratefully acknowledge the following contributors to this handbook:

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**WHO Headquarters:** Elena Altieri, Virginia Arnold, Fiona Bull, Maria De Las Nieves Garcia Kazal, Taskeen Khan, Dzmitry Krupchanka and Yuka Sumi.

#### Administrative support

Noha Gamal El-Din, Isabel Hall, Igy Mohamed.

#### Editing

Angela Burton.

## **Executive summary**

The mDementia programme will complement existing health and social care offered by informal carers, health care professionals and civil society service providers. This handbook provides guidance on how to develop, integrate, implement and evaluate a national mDementia programme in five key areas: operations management; content development and adaptation; promotion participation and retention; technology specifications; and monitoring and evaluation.

"Be He@lthy, Be Mobile" (BHBM) is a global initiative led by the World Health Organization (WHO) and the International Telecommunications Union (ITU). It is based on the use of mobile technology for health (mHealth) to address diseases and health issues such as smoking, diabetes, ageing, cardiovascular diseases and chronic respiratory diseases.

An estimated 50 million people live with dementia worldwide, and with approximately 10 million new cases every year, dementia is projected to affect 152 million people by 2050. Dementia is a major cause of disability and care dependency among older adults, and impacts every aspect of a person's life. There also continues to be much stigma and discrimination against people with dementia and their carers, heightening the already significant psychological, social, emotional and financial impacts of dementia on families and communities.

To help address these issues, Be He@lthy, Be Mobile has developed the mDementia programme that uses mHealth (whereby devices such as mobile phones, patient monitoring devices, personal digital assistants and other wireless devices are used to support medical and public health practice) to provide health information to those at risk of developing dementia and to support carers of people living with dementia. The reach of dementia prevention campaigns and caregiver support activities may be drastically enhanced with the use mHealth. The mDementia handbook and programme content was prepared by an international group of experts in mHealth, behavioural science and dementia, in collaboration with WHO and ITU. All content in this handbook is based on WHO guidelines, existing research evidence, existing WHO e-health content, and/or expert opinions.

Content for the programme in the form of a comprehensive message library with suggested message algorithms is available on request from **bhbm@who.int**. The message library uses evidencebased behaviour change techniques to help persons at risk of dementia and their carers. All content and programming guidance described here should be considered as examples and adapted to the local context of each participating country.

## Introduction

### THE GLOBAL CHALLENGE OF DEMENTIA: ACTION TO DATE

An estimated 50 million people live with dementia worldwide, 60% of whom reside in low- and middleincome countries. With approximately 10 million new cases every year, dementia is projected to affect 152 million people by 2050<sup>1</sup>. Dementia is a major cause of disability and dependency among older adults and impacts every aspect of a person's life (see Box 1). There is also much stigma and discrimination against people with dementia and their carers, heightening the already significant psychological, social, emotional and financial impacts of dementia on families and communities. The financial cost of dementia to countries is also staggering. In 2015, the total global societal cost of dementia was estimated to be US\$ 818 billion - equivalent to 1.1% of global gross domestic product. This figure is expected to reach US\$2 trillion by 2030<sup>2</sup>.

To address dementia as a global challenge, the 70th World Health Assembly adopted the **Global Action Plan on the Public Health Response to Dementia 2017-2025**<sup>3</sup> in May 2017. This plan represents an international commitment by Member States to improve the lives of people with dementia, their carers and families, and to create a world where they can live well and receive the care and support they need to fulfill their potential with dignity, respect, autonomy and equality. The plan includes seven action areas, each underpinned by a global target to be achieved by countries together with partners such as civil society, academia and the private sector by 2025:

- 1. Dementia as a public health priority
- 2. Dementia awareness and friendliness
- 3. Dementia risk reduction
- 4. Dementia treatment, care, and support
- 5. Support for dementia carers
- 6. Information systems for dementia
- 7. Dementia research and innovation

This handbook is especially relevant to action area 3 – dementia risk reduction; and action area 5 – support for dementia carers.

#### **BOX 1:**

#### **DEFINING DEMENTIA**

Dementia is the deterioration in memory, thinking, behaviour and the ability to perform everyday activities. Although dementia mainly affects older people, it is not a normal part of ageing. Alzheimer's disease is the most common form of dementia and may contribute to 60–70% of cases. Dementia is one of the major causes of disability and dependency among older people worldwide, having a physical, psychological, social, and economic impact, not only on people with dementia, but also on their carers, families and society.

#### **Dementia risk reduction**

While age is the strongest known risk factor for cognitive decline, dementia (where two or more functions such as memory or language are impaired, thereby interfering with daily living) is not an inevitable consequence of ageing. The actions to reduce dementia risk in the Global Action Plan specifically aim to encourage the proactive management of modifiable risk factors to delay or slow the onset or progression of the disease. These risk factors include low physical activity, tobacco use, unhealthy diets and harmful use of alcohol. Certain medical conditions are also associated with an increased risk of dementia, including hypertension, diabetes, dyslipidaemia, obesity and depression.

In 2019, WHO launched **Guidelines on risk reduction** of cognitive decline and dementia<sup>4</sup> to support health care providers as well as governments, policymakers and other stakeholders to strengthen their efforts to reduce the risks of cognitive decline and dementia through a public health approach. As many of the risk factors for dementia are shared with those of other noncommunicable diseases (NCDs), the key recommendations can be effectively integrated into programmes for tobacco cessation, cardiovascular disease (CVD) risk reduction, and improved nutrition.

#### Support for dementia carers

And it is not just the needs of dementia patients that need addressing: tailored support and services to meet the physical, mental and social demands of those caring for people with dementia are also essential to prevent a decline in carers' physical and mental health and social well-being. For this reason, in 2017 WHO launched iSupport, an online knowledge and skills training programme to help prevent and/or decrease the mental and physical health problems associated with caregiving, and to improve carers' quality of life. The programme includes five interactive modules focused on: (i) general information about dementia; (ii) information related to being a carer; (iii) self-care; (iv) providing care for the person with dementia; and (v) addressing symptoms of dementia. Each module is organized into lessons which include tips and interactive exercises that carers can complete at their own pace.

### **BE HE@LTHY, BE MOBILE AND mHEALTH FOR DEMENTIA**

Be He@lthy, Be Mobile uses mHealth (see Box 2) to provide health information to those at risk of developing dementia, and to support carers of people living with dementia. BHBM programmes demonstrate that the reach of dementia prevention campaigns and caregiver support activities may be drastically enhanced with the use of mHealth, especially when delivered as part of core health services. Systematic review evidence also shows moderate effects in favour of mHealth messaging to support behaviour change initiatives in a complementary manner across a number of risk factor areas, e.g., for quitting smoking<sup>5</sup>, for diabetes self-management<sup>6</sup>, to increase medication adherence in people who have cardiovascular diseases<sup>7</sup> and to increase physical activity levels8. This encouraging evidence and the success of other BHBM programmes (e.g. the mTobaccoCessation and **mDiabetes** programmes), coupled with the recent release of the dementia risk reduction guidelines<sup>4</sup>, provides a strong foundation for delivering dementia risk reduction through mobile phones.

As outlined in the WHO Global Strategy on Digital Health 2020–2025, it is important to involve stakeholders in planning and implementation of mHealth programmes, including communities, professional associations, and

#### BOX 2:

#### ABOUT BE HE@LTHY, BE MOBILE

Be He@lthy, Be Mobile is a global initiative led by the World Health Organization (WHO) and the International Telecommunications Union (ITU) to encourage and enable the use of mobile technology for health (mHealth). The aim is to help combat noncommunicable diseases such as diabetes, cancer, cardiovascular diseases and chronic respiratory diseases, and enable healthy ageing, through means such as text messages and apps. Be He@lthy, Be Mobile (BHBM) also helps Member States integrate mHealth behaviour change programmes into their national health systems.

BHBM identifies concrete actions that can be undertaken by Member States to help them meet the targets set out in the Global Action Plan for the Prevention and Control of NCDs 2013–2020<sup>9</sup>. And with the emergence of COVID-19 and other pressing public health issues, BHBM is now expanding to other health areas where behaviour change can have a positive impact on health and well-being

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