BE HE@LTHY
BE MOBILE

Annual Report 2016

World Health Organization

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Contents

Foreword

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2016 was an eventful year for the world. For our mHealth Initiative, ***Be He@lthy, Be Mobile***, this was no different.

On the global stage, we saw the first year of implementation under the new Sustainable Development Goals (SDGs). Mobile technology has a clear role to play across the agenda, but especially in supporting SDG 3's commitment to achieving global health and well-being. New data from the International Telecommunication Union (ITU) showed us that in 2016, 95% of the global population lived in an area covered by a mobile-cellular network. There are now over 7 billion mobile subscriptions worldwide – virtually one for every person on the planet – with the majority of these in developing countries. This network of access is a strong opportunity to connect people with health services; one which countries are rapidly embracing.

For ***Be He@lthy, Be Mobile***, this has manifested itself in the growing demand for mHealth services. This year has seen the launch of large-scale national programs in India, Egypt and Zambia, for tobacco cessation, diabetes and cervical cancer. The list of countries requesting support has continued to grow, as has the volume of evidence backing mHealth's efficacy as a public health tool. Recognition of the Initiative's contribution to the digital agenda also appeared, in the form of an Award for Excellence from the World Health Organization (WHO) Director-General, Dr Margaret Chan, in March 2016.

Yet more can always be done. Although the evidence is growing, there are still gaps in our knowledge on how to make mHealth maximise its impact. We need more research on specific disease areas, as well as on cross-cutting themes such as cost-effectiveness and health effects. Greater demand also means that we need to be capable of providing increasing amounts of technical assistance to countries. mHealth is not a quick-fix solution: as with many issues in public health, its success depends on a number of key factors.

This note of caution has a positive side: the continued need for this Initiative. A second phase of the WHO-ITU collaboration begins in 2017, bringing new projects and challenges. With health system capacity at a breaking point in many parts of the world, it remains our priority to see that digital health can deliver on its promises of equity, efficiency and empowerment.

Geneva, December 2016

I. Be He@lthy, Be Mobile: The story so far

Non-communicable diseases (NCDs) remain one of the major development challenges of the 21st century. They are a set of chronic health conditions such as cancers, diabetes, heart disease and lung disease, whose onset can be linked to a range of genetic, behavioural or socio-environmental factors. In total they are the largest cause of global mortality, responsible for an estimated 38 million deaths each year.[1]

The evidence base for mHealth interventions is continuing to grow, as is the number of different applications and projects using mobile technology to connect people with health care. Mobile usage has continued to rise in all regions of the world, with global network coverage reaching 95% in 2015.[2] Mobiles are becoming a mainstay of modern life for many, and health systems around the world are interested in taking advantage of the opportunity they offer for innovations in service access, delivery and quality.

Since 2013, the **Be He@lthy, Be Mobile** initiative (BHBM), a partnership between the World Health Organization (WHO) and the International Telecommunications Union (ITU), has been working to develop content for NCD prevention and management services which can be run using mobile phones.

In Phase I, the Initiative's aim was to support the adoption of mHealth services for NCDs in eight initial countries: Costa Rica, Senegal, Zambia, Tunisia, India, Norway, the UK and the Philippines. Each country selected a priority NCD area

1 *Global status report on Non-communicable diseases*. Geneva: World Health Organization, Geneva, 2014.

2 ICT Facts and Figures 2015, Geneva: International Telecommunications Union, 2016

© The Government of Zambia

Overall, the Initiative has met its original aim of helping governments scale up mHealth programs and building the global evidence base for mHealth for NCDs.

and worked with BHBM to develop mobile-based services for the prevention or management of the disease or its major risk factors.

As of the end of 2016, activities are running in all eight countries. The year also saw Egypt develop its role as a de facto ninth country, after the Government used the BHBM mHealth handbook to introduce a national mDiabetes service.

By December 2016, programs had been fully launched in India, Senegal, Egypt and Zambia, and were under preparation in Tunisia and the Philippines. Over 1.5 million people had registered in the India mTobaccoCessation service, with over 26,000 using the mDiabetes service which had been launched in July 2016. Senegal also saw tens of thousands of people sign up to receive SMS messages on managing diabetes during Ramadan in the third edition of the service, whilst in Zambia the First Lady herself launched the country's first SMS service to raise awareness of cervical cancer.

In Egypt and Senegal, over 50,000 people received diabetes management tips via SMS during Ramadan fasting. This was partly thanks to support from Senegal who shared their material and experiences with Egypt via the global initiative. This kind of bilateral collaboration is expected to play a significant role in support models for future country programs.

The BHBM toolkit of mHealth interventions is still at the heart of the initiative's work. This is a series of mHealth handbooks which contain the technical and operational content required to run an mHealth program as a national service. The health content is based on clinical studies and WHO guidelines, which is reviewed by global and national experts to ensure it is appropriate for use in each local setting.

In a time when public health resources are stretched to their limits, partnership is increasingly important. This is particularly the case for mHealth, where a single successful program needs input from multiple sources. In its first 4 years the initiative has benefitted from support from public and private sector partners, who have brought expertise in technology, wellness, international aid and public health governance. It will continue to grow this network over the next 4 years, especially in areas where innovations in health will require new skills and expertise.

Overall, the initiative has met its original aim of helping governments scale up mHealth programs and building the global evidence base for mHealth for NCDs. This year has seen the launch of several programs and the establishment of the ground-level structures for these to continue in 2017.

However, with each new use case, new challenges and considerations come to light. A second phase of ***Be He@lthy, Be Mobile*** has already been approved for 2017-2020, and will continue to work on developing our understanding of barriers to mHealth scale-up. It will continue the current work around

countries and handbooks, centralizing lessons learnt from academia and the field. It will also look at new ways of sharing this knowledge and expertise gained during the first 4 years. mHealth as a technology has not yet reached its full potential. However, through its work the Initiative is learning what works and how to make programs sustainable. Sharing this knowledge will help strengthen programs across all contexts, upholding the collaborative spirit of the Sustainable Development Goals.

Phase II will also start to look at the bigger question of how innovation in digital health can systematically integrate into national health systems, bridging the gap between pilot and large-scale program in the same way as mHealth.

This is because mHealth is not the sole aim of the work, but rather a small piece in the much larger puzzle of how public health can absorb useful innovation in order to reap some of the benefits. And by getting scale-up right in one area, we can start to better understand what the puzzle might look like – and how, eventually, we might be able to complete it.

2016 Results in a Snapshot

	2016 Results	4 Year Target
Number of countries joining the Initiative	**9** Costa Rica, India, Norway, Philippines, Senegal Tunisia, United Kingdom, Zambia and Egypt	**8** With at least one from each WHO region
Handbooks in development	**6** mTobaccoCessation, mDiabetes, mCervicalCancer, mHealth Monitoring and Evaluation, Digital Health Platform, mTB-Tobacco	**5**
Partnership fundraising over 4 years	**USD 8,325,964**	**USD 10 million**

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Be He@lthy, Be Mobile: 2016 Calendar

JANUARY

mTobaccoCessation launched in India (160,000 users).

FEBRUARY

Global workshop on mTB-Tobacco, Cairo.

MARCH

BHBM wins a WHO DG Award for Excellence.

APRIL

mDiabetes pilot launched in Cairo (10,000 users) BHBM join the Kanagawa mobile health seminar, Japan.

MAY

ITU digital health event.

WHO 139th Executive Board: Event on mHealth.

JULY

mDiabetes launched in India; mRamadan launched in Egypt and Senegal (50,000 users each).

AUGUST

BHBM meeting in France.

Michael Bloomberg announced as the WHO Global Ambassador for NCDs.

SEPTEMBER

HEARTS

Global HEARTS launch, New York.

OCTOBER

mCervicalCancer launched in Zambia.

mHealth monitoring and evaluation workshop, India.

mHealth presented at the Me-Byo World Conference, Yokohama, Japan.

NOVEMBER

Annual Bloomberg meeting on global tobacco control.

9th Global Conference on Health Promotion Shanghai · 21-24 November, 2016

Digital health session at the 9th global conference in Global Health Promotion.

DECEMBER

mTB-Tobacco pilot planning workshop, Cairo.

India reaches 1.6 million users.

BHBM in a panel discussing the new eHealth strategy for the Czech Republic.

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mHEALTH FOR NON-COMMUNICABLE DISEASES (NCDs) INITIATIVE
Cancers
Cardiovascular Diseases
Diabetes
Respiratory Diseases
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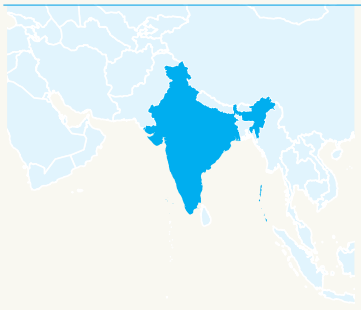
MOBILE TECHNOLOGY FOR A HEALTHY LIFE

II. Countries

In 2016, **Be He@lthy, Be Mobile** successfully met its initial target to engage in mHealth work in eight partner countries, as well as in an unexpected ninth country, Egypt. Highlights from each of the countries are set out in this section.

Requests for technical support were also received from tens of other countries. The level of interest has clearly highlighted a global demand for mHealth services, meaning a large part of future work will focus on how to expand country-level support.

mTobaccoCessation in India



2016 was a big year for India. The country saw the launch of not one, but two nation-wide mHealth services: mTobaccoCessation and mDiabetes.

The first, mTobaccoCessation, was officially launched on 15th January 2016. The service is based on the global mTobaccoCessation handbook, which was adapted for use in India by national experts and the Telemedicine Division of Ministry of Health & Family Welfare. However it has added a number of country-specific innovations to suit India's needs. Content has been developed to help people quit smokeless tobacco (given the high prevalence of chewing tobacco in the country) and is offered in both English and Hindi languages. There is also a unique feature in registration whereby users can use a missed call to sign up for the service, as an alternative to sending an SMS.

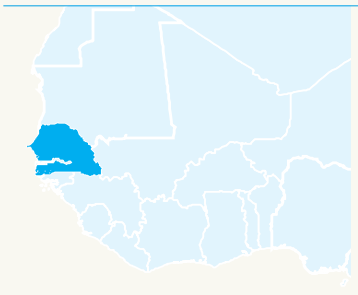
Within the first week, 160,000 people registered to use the service, and as of December 2016 over 1.5 million people have registered. Over the past several years, while the clinic-based tobacco cessation services managed to reach out and support approximately 35,000 individual tobacco users, the mobile technology made it possible to multiply this number significantly in just 8 months.[3] Clinical trials indicate that SMS cessation services can be 2-3 times more effective than traditional cessation services alone, meaning the impact on reducing tobacco use could be huge.

The service uses the Government's existing digital platform for SMS delivery under the overall umbrella of the Prime Minister's Digital India Platform. This has helped to ensure the ownership and commitment of the government right from the beginning. This makes the service more sustainable and simplifies the process by which the government can add new mHealth components to the existing platform and hence respond to national health priorities.

India demonstrated how this could be achieved when it launched its next mHealth service, this time for diabetes, in July 2016. As of December 2016, it has already seen over 26,000 people register to learn about diabetes risk factors via SMS based service.

Initial evaluation of the program is ongoing, and in October global experts met with the Ministry of Health in India to discuss the program's monitoring and evaluation strategy. Preliminary results of the service are expected to be published by the Government in the first half of 2017.

mDiabetes in Senegal



Senegal has continued to lead the way in mDiabetes. The 2016 version of its mRamadan campaign, an SMS-based information service for people with diabetes during Ramadan fasting, saw the largest use numbers to date, with roughly 50,000 individual users signing up for the service. A formal evaluation of the health outcomes of the service is being organized and findings are expected in 2017.

The intention is for these additional services to reinforce the usefulness of the SMS service for other disease areas or risk factors which may affect diabetes, such as diet or exercise. There are plans to see how the service can progress from individual campaigns to a continuous and more sustainable service in 2017.

In the meantime, Senegal has been a strong champion of country-country collaboration. The SMS content and experiences of managing a national

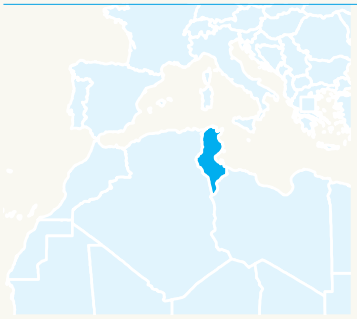
3 Murthy P, Saddichha S. "Tobacco cessation services in India: recent developments and the need for expansion." Indian J Cancer. 2010;47(Suppl):69–74.

The 2016 version of Senegal's mRamadan campaign, an SMS-based information service for people with diabetes during Ramadan fasting, saw the largest use numbers to date, with roughly 50,000 individual users signing up for the service.

program have been shared directly with both Tunisia and Egypt to inform the design of their own mDiabetes services, with Egypt following their lead to create their own mRamadan campaign. It is a strong model for horizontal collaboration, which positions the country as an mHealth champion in the region.

Senegal Food.

mTobaccoCessation in Tunisia



In order to maximise the benefits of the new technology capacity developed for the program, an mDiabetes service is also scheduled for development in 2017.

In 2015 the Government of Tunisia announced their commitment to create a national mTobaccoCessation program to help reduce tobacco use amongst adults and adolescents, with a special focus on younger users in secondary and tertiary education.

During 2016 the service, called "Yezzi!" ("Enough!" in the local Tunisian Arabic dialect) was prepared and launched to a small pilot group of approximately 450 users. Establishing the technology base for the service proved to be a key area where support was needed, in order to guarantee service provision and reliability in an area where power outages and signal failures are common. Challenges in the macro-political environment contributed to a slowdown in the work, as did a change in leadership in the Ministry of Health. However tobacco control remains a priority in the country's health policy, and the program is scheduled for a full launch in the second quarter of 2017.

In order to maximise the benefits of the new technology capacity developed for the program, an mDiabetes service is also scheduled for development in 2017. This will adapt content from the ***Be He@lthy, Be Mobile*** mDiabetes handbook, with additional first-hand experiences from Senegal who share a number of cultural ties with Tunisia, including language. Representatives from Senegal and Egypt have already met with the mHealth team in Tunisia and presented on their mDiabetes program.

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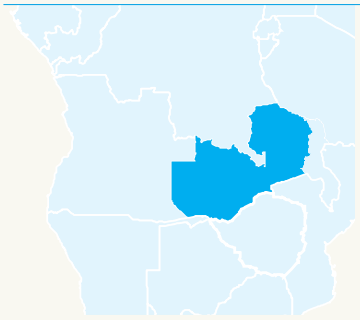
mCervicalCancer in Zambia



Zambia has the fourth highest cervical cancer rate in the world.[4] It is now the most common cancer in Zambia with incidence and mortality rates of 52.8 and 38.6 per 100,000 women respectively.[5]

In 2015 the Government began planning to introduce a cervical cancer service using SMS to help as many women as possible receive the information. The initial phase of the mCervicalCancer program will focus on raising Zambian women's awareness of the importance of screening. SMS messages will give them information on the causes of cervical cancer, how screening can help reduce their risk, and where to get screening. The aim is to increase uptake of cervical cancer screening services amongst program users and their families.

The national launch of this first stage took place on October 17 2016, in the Chongwe district of the country's Lusaka province. The First Lady of Zambia, Mrs. Esther Lungu was the Guest of Honor, and in her remarks she emphasized the need for other sectors outside health to tackle the growing burden of cancers and other NCDs in Zambia. The mHealth program bore testimony to how this could work, with participation from the WHO, the African Development Bank, Ministries of Health and ICT, the national telecom regulator, and a range of local partners.

As part of the event, local telecoms (Airtel, MTN and Zamtel) announced the launch through an SMS sent to 600,000 subscribers on their networks, saying:

The Ministry of Health launches mCervicalCancer! A program using mobile technology to educate women on cervical cancer. Get screened today!
Be He@lthy, Be Mobile.

mCervicalCancer: Poster from the Zambia launch © The Government of Zambia

The program aims to reach over 250,000 women within the screening age group of between 25-59 years throughout the country per year. During the first phase, one-way SMS messages with information on cervical cancer risks and screening will be sent out to women in the Lusaka province. Regular monitoring at local clinics will aim to see how many women are accessing screening thanks to the service.

4 2014 African Cervical Center for Muti-Indicator Incidence and Mortality Scorecard

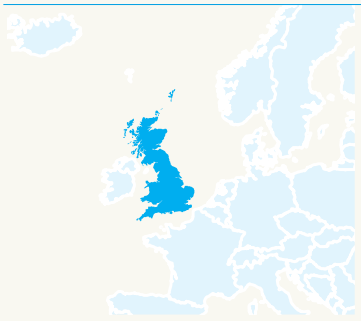
5 2014 African Cervical Center for Muti-Indicator Incidence and Mortality Scorecard

mCOPD in Norway

Norway continues to demonstrate how working with the initiative can support domestic and global mHealth agendas. Through funding and a secondment position, the Government is supporting programs in low- and middle-income countries whilst also developing their own mobile-based program for Chronic Obstructive Pulmonary Disease (COPD). This is currently a series of small-scale pilot studies in Oslo and two other municipalities, looking at how remote support can be delivered via mobiles and other digital systems to people living with COPD.

The results of the national pilots will inform which approaches will be scaled up as part of local health systems in other municipalities. They will also contribute to the development of the initiative's global handbook on mHealth for lung diseases such as asthma and COPD. In early 2017, Norway will co-host a workshop to develop additional content for the handbook by consulting with international experts and other countries. Part of the aim will be to see how the Norwegian experience can be adapted to support patients in other contexts.

mHypertension in the United Kingdom



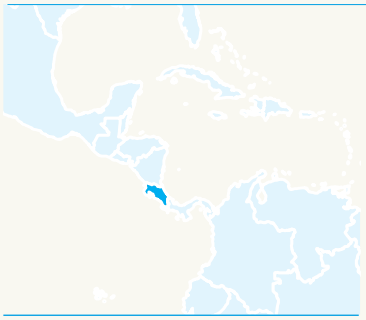
Tool available at: https://www.nhs.uk/Conditions/nhs-health-check/Pages/check-your-heart-age-tool.aspx

In January 2015 the United Kingdom selected hypertension as a focus area for its work with Be He@lthy, Be Mobile. In 2016 the region of Cheshire and Merseyside in North West completed a piece of behavioural insights work on how to increase population engagement in monitoring their blood pressure and making lifestyle changes to improve its management. Insights were used to develop a 'conversational approach' which could be delivered by front line workers including pharmacy staff and health trainers. Part of the conversations could be delivered using mobile messaging services such as Whatsapp.

The work was co-led by Public Health England (an agency of the UK Department of Health) and Bupa, with help from the digital design agency FROG who ran the initiative's global mHypertension workshop in 2015. Some of the insights are now being used to inform a local work stream on how to improve blood pressure awareness and management in the general public.

The initiative is also working with central units in PHE to look at other mHealth tools for NCD prevention developed by PHE and national partners. The aim is to look at whether some of these tools could be adapted for use in other countries. Examples include an online Heart Age Tool which helps people understand their CVD risk based on simple measurements and lifestyle habits, such as smoking and exercise. By gamifying the risk assessment and results, it makes it easier for users to understand the health implications of their lifestyle, and potentially make positive changes.

mTobaccoCessation in Costa Rica



According to the 2015 WHO Global Adult Tobacco Survey (GATS), only 9.1% of the population now uses tobacco, representing a 56.9% reduction in total tobacco use.

Costa Rica's mTobaccoCessation service was the first Be He@lthy, Be Mobile mHealth program, and was also the first ever national cessation service based on mobile phones.

In 2013 when the Government of Costa Rica launched the service, around 16% of the population consumed tobacco on a regular basis, with men representing the majority.[6] Current tobacco consumption is estimated to have declined significantly. According to the 2015 WHO Global Adult Tobacco Survey (GATS), only 9.1% of the population now uses tobacco, representing a 56.9% reduction in total tobacco use.[7] Through its other tobacco control strategies, the country is working towards becoming a tobacco-free country (defined as a country with a tobacco consumption prevalence of >5%).

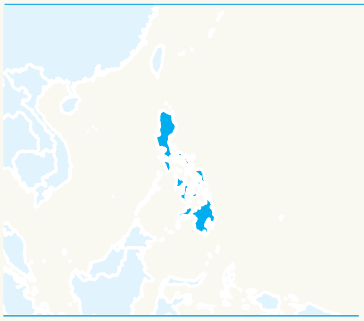
The mTobaccoCessation service, "4321 Quiero Dejar" still exists as a public service. However as a result of the drop in tobacco prevalence, the government is looking at how the underlying technology platform could be expanded for use in other priority disease areas, such as diabetes. The SMS content and experiences could also be shared with other countries in the region, such as Panama.

© The Government of Costa Rica

6 WHO NCD Country Profiles 2014 (http://www.who.int/nmh/countries/cri_en.pdf)

7 WHO GATS Costa Rica: Executive summary 2015 (http://www.who.int/tobacco/surveillance/survey/gats/cri_executive_summary_en.pdf?ua=1)

mTobaccoCessation in the Philippines



The mTobaccoCessation work this year has focused on adapting the content for the program to ensure it has the strongest impact on helping future users quit tobacco for good.

The Philippines is a tobacco-growing country, and is one of the countries in the Western Pacific Region with a high prevalence of tobacco use. According to the 2015 Global Adult Tobacco Survey (GATS) 23.8% of Filipino adults - 16.5 million people - are smokers. As a result tobacco kills approximately 87,600 Filipinos annually: 240 deaths per day. A third of the deaths are of men in their most productive years.

In 2013, the Philippines committed to the NCD Global Action Plan to reduce the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases. In order to achieve the targets set in the Global Action Plan, the Philippines must reduce the smoking prevalence rate to around 18% by 2025.

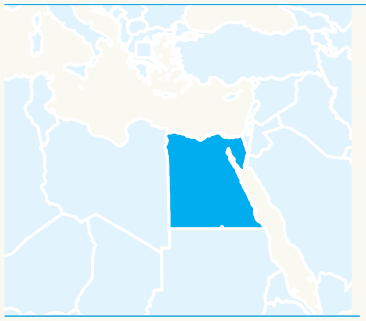
The mTobaccoCessation work this year has focused on adapting the content for the program to ensure it has the strongest impact on helping future users quit tobacco for good. A survey was carried out in Marikina City to understand the kind of user profiles the mTobaccoCessation would most benefit and to select a pilot cohort for the service.

A total of 286 users were then identified to take part in the initial testing of the SMS messages for content and relevance to their quit attempt. Focus group discussions at the end of the year listened to the early feedback from participants after they had used a trial version of the service for 3 months. All of this will shape the final version of the program when it is launched at national scale.

At the political level, 2016 saw the new Secretary for Health commit support for the mTobaccoCessation service. Importantly, the year also saw its integration with other national quit services such as the country's Cessation Quitline. This has also seen its adoption by the Philippine Lung Center, a specialized hospital under the Department of Health which is set to lead all cessation programs and services in the country. This situates mTobaccoCessation within the broader cessation strategy for the country, ensuring it is not a stand-alone service.

In early 2017 a national Strategic Planning workshop will finalize the program's content, delivery and operationalization. A full launch is expected in June 2017.

mDiabetes in Egypt



an mRamadan campaign ran in July 2016 and reached over 50,000 users, with over 1.25 million SMS sent in total.

Following its decision to independently create an mDiabetes service using ***Be He@lthy, Be Mobile's*** global handbook, Egypt announced the national program in February 2016 at a press conference in Cairo.

The program has been based on the approach followed by Senegal, using short-term services which will eventually be scaled up as a continuous provide within the health system. From April to May a trial program saw 10,000 people receive SMS messages for a month with helpful information on diabetes and how to manage it.

Following this, an mRamadan campaign ran in July 2016 and reached over 50,000 users, with over 1.25 million SMS sent in total. The government is now looking at how the service can be scaled up in 2017, and expanded from one-way SMS to make it an interactive service for people.

Next year will also see Egypt's formal adoption as a partner country of the Be He@lthy, Be Mobile initiative. This will allow the Secretariat to provide additional support to the country as they move ahead. It will also see their mHealth portfolio expand as they host a pilot of the mTB-Tobacco service under development by the global initiative. Tuberculosis (TB) remains a public health challenge in Egypt, with 15 cases in every 100,000 of the population. Tobacco consumption can affect treatment success, meaning with over a quarter of the population currently using tobacco this is set to be a challenge to long-term TB control.

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mHEALTH FOR NON-COMMUNICABLE DISEASES (NCDs) INITIATIVE
Cancers
Cardiovascular Diseases
Diabetes
Respiratory Diseases
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Phase I: Lessons Learnt

What are the most valuable lessons we have learnt from our nine countries?

Things we expected

1. Start simple. A basic SMS program which works will have better health outcomes and build a stronger case for adding other programs in the future. The handbooks should also be straightforward and easy to use.
2. Political commitment is needed from government authorities for health and ICTs, to ensure that the programs are firmly rooted into the national agendas of each.
3. No matter what the mHealth service, it must be integrated into a country's broader strategy and action plan for the condition it is targeting.
4. User feedback on SMS content and format is vital for the program messages to be understood and absorbed.
5. Getting users to register in is one thing, but helping people maintain their use of an mHealth service like mTobaccoCessation can be challenging. Services need to consider how to keep users engaged.
6. Robust monitoring and evaluation needs to be set up from the start. This is important to build the evidence case and because "what gets measured gets done".
7. Appetite for delivery partnerships with global or national entities varies significantly between countries. The government will always have the final say on which partners they are willing to work with.
8. Validation of health content by WHO or its affiliated expert groups is considered extremely important by both providers and users. This kind of content quality control is absent from many other mHealth programs.

Things we didn't

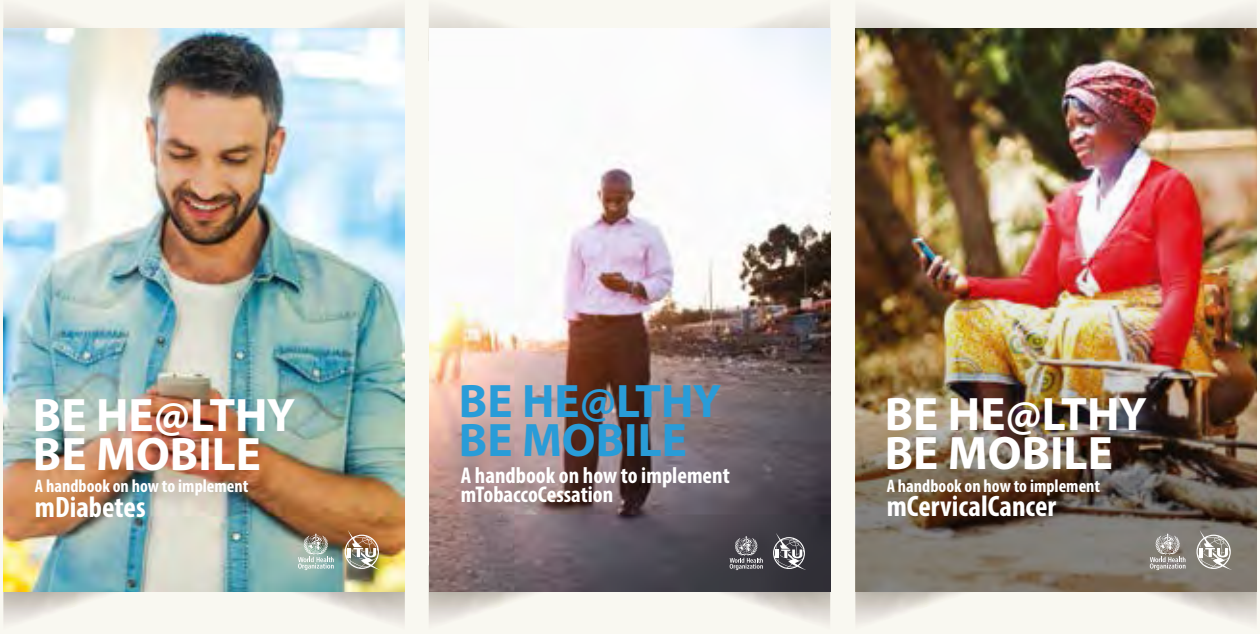
1. Country appetite for mHealth has exceeded expectations. This means countries may forge ahead independently using BHBM tools – Egypt was the best example of this in their adoption of the mDiabetes handbook.
2. Countries are extremely willing to share mHealth content and experiences across borders. In mDiabetes for example, bilateral meetings have happened between Senegal and Tunisia and Senegal and Egypt to share SMS content and program management recommendations.
3. NCDs may not be high profile, but the mHealth platforms set up for NCDs can rotate to other completely unrelated diseases. Senegal showed this by using their mDiabetes platform to share messages on Ebola in 2014.
4. The governance structure between two UN agencies has been relatively straightforward to manage.
5. There are several new models for sustainability, and these are often proposed by countries themselves, such as Costa Rica using funds from tobacco taxes.
6. Surprisingly, mHealth is not immediately a business case for mobile operators. Companies are very willing to support programs but the benefits are less about short-term profit and more on longer-term skills upgrading as a service provider.
7. Strong national promotion campaigns for a new mHealth service are essential. In Costa Rica and India, national promotion campaigns were key to producing significant spikes in registration numbers.
8. SMS may limit participation for certain audiences. One of the most successful twists used by India was to allow people to register into their mHealth programs by giving a missed call to the short code. This has led to Interactive Voice Response (IVR) being considered for inclusion.

III. Handbooks

Be He@lthy, Be Mobile supports countries and governments by providing technical expertise to implement mobile health interventions as part of their national health systems.

Handbooks for each mobile intervention are developed by the Secretariat together with contributions from informal expert groups with expertise in the relevant disease or intervention areas. These documents consolidate all the relevant information and background necessary to implement an mHealth program and present it in the form of ready-to-use options for the implementing partners. A typical handbook includes information and resources to assist in program design and operational aspects of the implementation, SMS content libraries, case studies, lessons learnt and other technical tools and resources for effective replication and scaling-up of mobile health programs.

Handbooks' status



The mTobaccoCessation, mCervicalCancer, and mDiabetes handbooks were published in 2016. The Monitoring and Evaluation, Digital Health Platform, and mTB-Tobacco handbooks are in the final development stages. Additional mHealth handbooks are currently under development including: mChronicRespiratoryDisease, mAgeing, mSmartlife, and mGlobalHEARTS.

The Handbook Development Process

How are handbooks developed?

A multi-sectoral global workshop is held to discuss mHealth implementation in the selected disease area, based on human-centered design principles

A smaller Informal Expert Group (IEG) is selected to draft the handbook.

The handbook is reviewed by internal WHO experts and other stakeholders, before final review by the IEG.

Content is developed and tested through a user-centric approach

The results and experiences of each country's program are then fed back into the handbooks, growing the mHealth evidence base.

The initiative works with countries requesting support to adapt the content of these handbooks into a context-specific framework for a national mHealth intervention.

Handbook published!

What topics are covered in the handbooks?

What is the purpose of the program algorithms?

SMS Content is sent to subscribers/participants which helps them...

- Learn about the risk factors and disease.
- Understand how to prevent and manage.
- Follow up, monitoring and treatment of disease

Coming soon

Prevention (for high risk populations)

Management (patient with the disease)

mTobaccoCessation: A User Journey

1. Tobacco user wants to quit but needs support.

2. User self-enrols in program or is enrolled by health care worker or family through missed call, website or SMS.

3. User is put into a message group based on criteria such as type of tobacco used (smoked vs. smokeless).

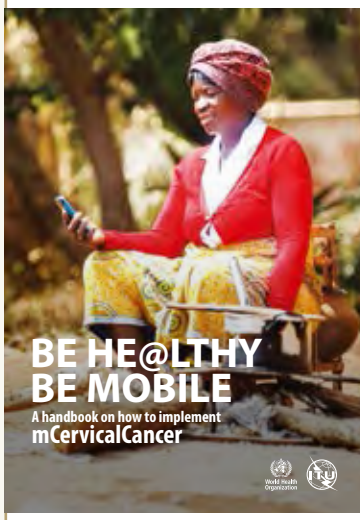
4. User receives support until quit date followed by daily messages offering guidance on managing cravings, coping with withdrawal, etc.

5. User can text keywords too if they need specific support at any moment.

6. User receives gradually less messages as their tobacco-free time increases.

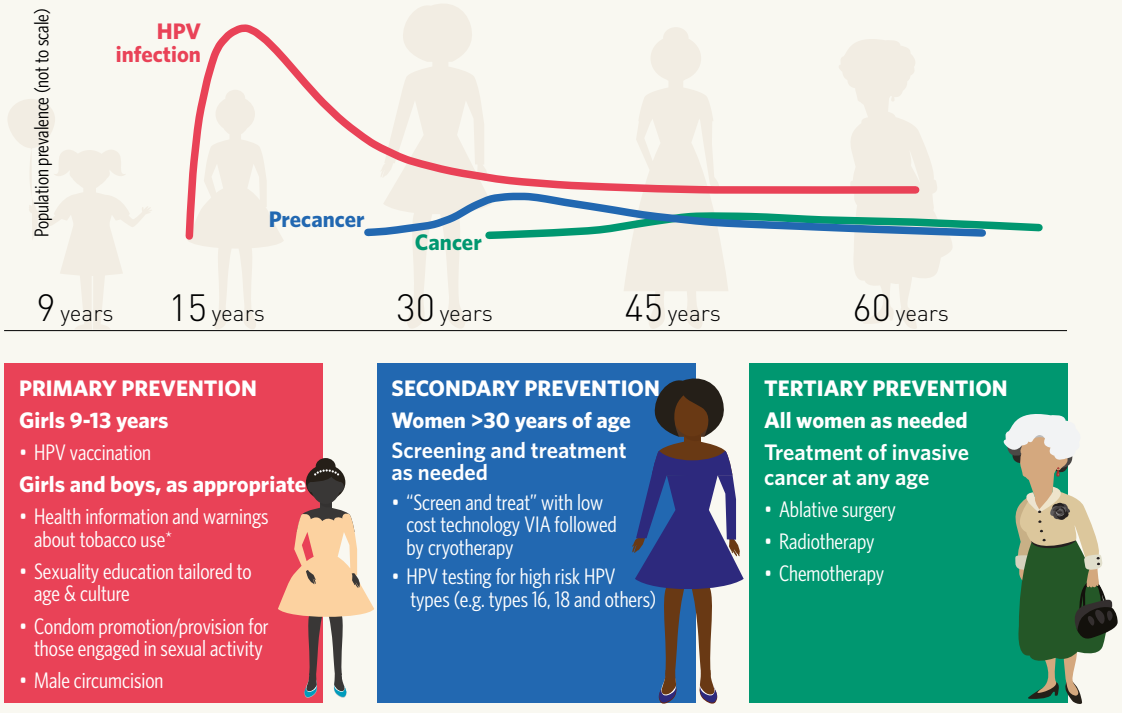
7. After six months of support, the tobacco user is tobacco-free.

Handbook Spotlight: mCervicalCancer



The mCervicalCancer handbook provides guidance on how mHealth can be integrated into a comprehensive approach to cervical cancer prevention and control throughout the lifecourse, to reduce the burden of the disease. The goal of any comprehensive cervical cancer prevention and control program is to reduce the burden of cervical cancer by: (i) rapidly increasing human papillomavirus (HPV) immunization (or vaccination) coverage for girls (aged 9-13) and reducing HPV infections; (ii) detecting and treating cervical pre-cancer lesions; and (iii) providing timely treatment and palliative care for women diagnosed with invasive cancer, (see Figure 1). Digital health and technology can play an important role in supporting ongoing efforts to heighten the prevention (Figure 2), control and management of cervical cancer. Zambia has been using this handbook to integrate the appropriate mobile technologies for use in this approach, to make comprehensive cervical cancer care feasible and affordable. Feedback from this program will be used to improve the handbook and provide lessons learned for other countries wishing to implement a similar approach.

Figure 1: The WHO comprehensive approach to cervical cancer prevention and control: Overview of programmatic interventions throughout the life course to prevent HPV infection and cervical cancer



* Tobacco use is an additional risk factor for cervical cancer.

Figure 2: Key messages about the HPV vaccine and cervical cancer

Five key messages about the HPV vaccine:

1. There is a safe, effective vaccine that can protect against cervical cancer.
1. The HPV vaccine works best if received before sexual activity begins.
1. All girls in the age cohort or in the school class/grade/year identified as the target population by the national programme should receive the HPV vaccine.
1. HPV vaccines do not treat or get rid of existing HPV infections.
1. Girls who are already sexually active can also be given the HPV vaccine, though it may be less effective.

Five key messages about screening and treatment:

1. Cervical cancer is a disease that can be prevented.
2. There are tests to detect early changes in the cervix (known as pre-cancers) that may lead to cancer if not treated.
3. There are safe and effective treatments for these early changes.
4. All women aged 30–49 years should be screened for pre-cancer at least once.
5. No one needs to die from cervical cancer.

The specific messages developed for use in each country need to comply with the country's national guidelines, including the specified target populations (i.e. age ranges for vaccination of girls against HPV and for women's cervical cancer screening).

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mHEALTH FOR NON-COMMUNICABLE DISEASES (NCDs) INITIATIVE
Cancers
Cardiovascular Diseases
Diabetes
Respiratory Diseases
BE HE@LTHY BE MOBILE
MOBILE TECHNOLOGY FOR A HEALTHY LIFE

IV. Partnerships

The 2030 Agenda for Sustainable Development has reignited interest in the role of partnerships for human development. Thanks to mHealth bridging the worlds of health and technology, ***Be He@lthy, Be Mobile*** is ahead of the game in understanding how to bring different sectors together around a common goal.

The basic partnership framework has remained the same, with expertise provided by governments, multilateral organizations, academia, civil society and select private sector companies. The approach has been designed to engage partners whose skill sets match the needs of the global initiative or country-level work in technology, health, governance and innovations management.

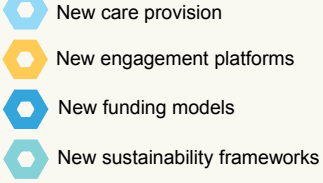
By approaching mHealth from an ecosystems perspective, the aim is for programs to be more sustainable as they are less vulnerable to shifts in the broader mHealth landscape. They are also able to benefit from innovations in content or delivery, as well as new insights from the global research community on how mHealth can be used to deliver public health impact.

As a result the programs are responsive to change, which helps them remain relevant to the communities they support.

The mHealth ecosystem

The grid opposite sets out the full gamut of non-government partners who may have an interest in national-scale digital health products and services. The main industry categories sit towards the center, with more complex sub-sectors branching outwards.

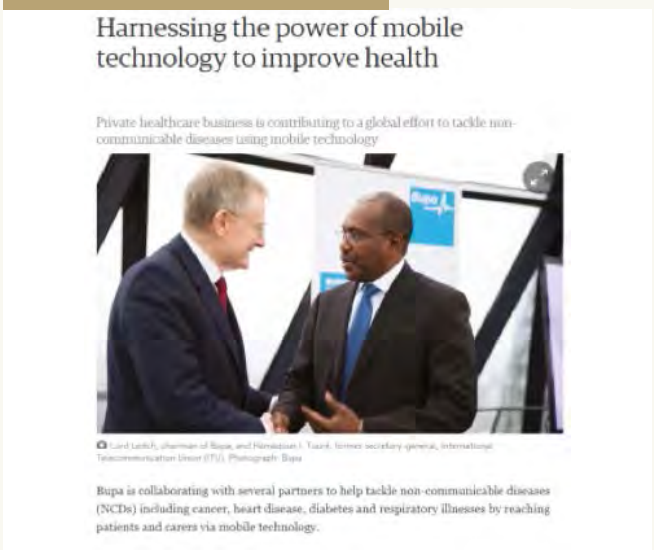
The sub-sectors are often not considered as potential stakeholders, but as the use of mHealth expands their role will become more important. This is because they represent new ideas around health care provision and funding which are predicted to have a significant influence on systems. These future themes are classified into different colours according to the scheme below, and give an idea of the direction in which health care markets are moving.



How did our partners get involved?

They attended workshops and conferences...

...talked about mHealth work...



Harnessing the power of mobile technology to improve health

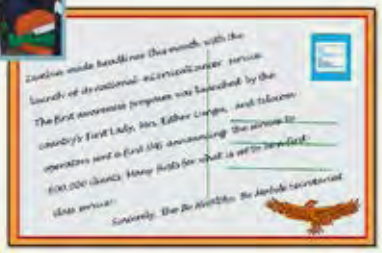
Private healthcare business is contributing to a global effort to tackle non-communicable diseases using mobile technology

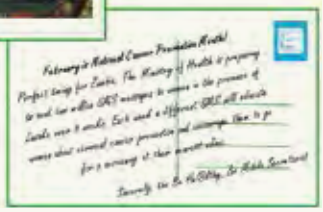
Bupa is collaborating with several partners to help tackle non-communicable diseases (NCDs) including cancer, heart disease, diabetes and respiratory illnesses by reaching patients and carers via mobile technology.

...and even supported national programs (at the request of governments)

...co-hosted and organized events...

...and sent many, many postcards about what we were up to!

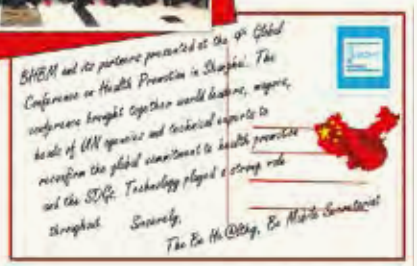





DIGITAL HEALTH


diabetes


BE HE@LTHY
BE MOBILE

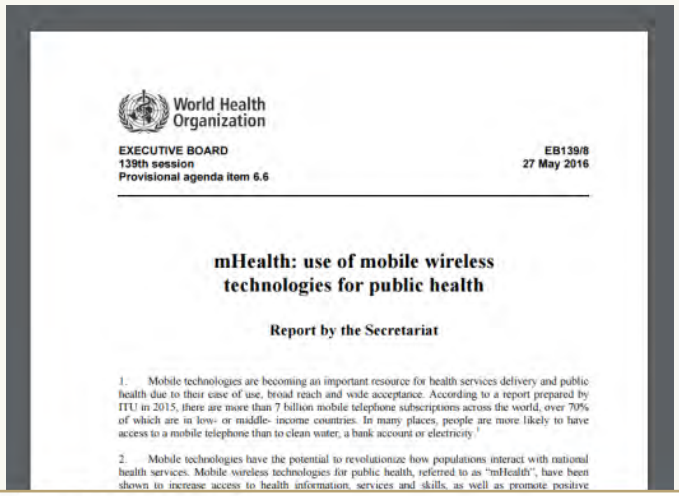


Advocacy: The EB Resolution

Getting key messages out about how mHealth for NCDs works is a core part of the initiative's work. Sharing experiences from their countries helps identify and disseminate best practices, helping other countries adopt what has worked and avoid what has not. It also promotes consensus around where the bigger mHealth agenda needs to focus and develop, from the perspective of both policy and practice.

One of the most significant policy events of the year happened at the WHO 169th Executive Board meeting. The WHO Executive Board is a group of 34 technically qualified representatives from Member States, who meet twice a year to decide topics for the World Health Assembly and ensure WHA resolutions are implemented. It is an opportunity for Member States to propose topics which they believe will be of the greatest importance to national health developments in the coming year.

In May, mHealth and wireless technologies were proposed as an agenda item, under the technical report, "mHealth: use of mobile wireless technologies for public health".



World Health Organization

EXECUTIVE BOARD
139th session
Provisional agenda item 6.6

EB139/8
27 May 2016

mHealth: use of mobile wireless technologies for public health

Report by the Secretariat

1. Mobile technologies are becoming an important resource for health services delivery and public health due to their ease of use, broad reach and wide acceptance. According to a report prepared by ITU in 2015, there are more than 7 billion mobile telephone subscriptions across the world, over 70% of which are in low- or middle- income countries. In many places, people are more likely to have access to a mobile telephone than to clean water, a bank account or electricity.[1]

2. Mobile technologies have the potential to revolutionize how populations interact with national health services. Mobile wireless technologies for public health, referred to as "mHealth", have been shown to increase access to health information, services and skills, as well as promote positive

10. Significant technical engagement by the Secretariat towards the development and implementation of mHealth programmes, include:

- the joint initiative with ITU "Be He@lthy Be Mobile" for the prevention and management of noncommunicable diseases;
- the development of guidance for mHealth applications in the area of reproductive health through the mHealth Technical and Evidence Review Group for reproductive, maternal and child health;
- building on digital solutions to help tuberculosis patients.

What the report covered:

mHealth's potential to expand access to various health services

Challenges facing broader government uptake, including absence of large-scale projects, lack of standards and best practices, interoperability issues and the need for a multisectoral approach.

New priorities they would like to see WHO address, such as generating evidence-based guidelines and helping Member States implement programs

Profiling of the WHO-ITU initiative as a strong example of technical engagement from WHO!

In the discussion, EB Members stated that they would like:

Training to help countries actively implement mHealth programs.

More guidance on the use of new and appropriate mobile solutions, particularly smartphone apps.

Support to help countries develop national mHealth strategies (integrated with eHealth work).

Greater use of partnerships, including private sector companies who have real experience of working with mHealth.

More opportunities for sharing evidence between Member States and bilateral learning.

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mHEALTH FOR NON-COMMUNICABLE DISEASES (NCDs) INITIATIVE
Cancers
Cardiovascular Diseases
Diabetes
Respiratory Diseases
BE HE@LTHY BE MOBILE
MOBILE TECHNOLOGY FOR A HEALTHY LIFE

V. mHealth in the Sustainable Development Goals

Mobile technologies have the potential to play an important role in advancing universal health coverage. It is one of the few channels which will allow for the improvement of population health coverage and access without overwhelming investment in new infrastructure. As a result, mHealth is well-positioned to contribute to the achievement of the health-related Sustainable Development Goals mandated by the 2030 Agenda for Sustainable Development.

In recent years there has been an increasing call for UN leadership in the mHealth and NCD spaces. In 2011 the Moscow Declaration on NCDs (resolution WHA64.11) and the Political Declaration on NCDs (resolution A/RES/66/2) both urged WHO and Member States to identify innovative solutions for expanding NCD control. The 139th EB meeting in May 2016 built on this via a direct request from Member States for WHO to help build the evidence base on mHealth and share global experiences and best practices from the field.

There are three main goals within the SDG agenda to which mHealth can directly contribute:

SDG 3:
"Ensure healthy lives and promote well-being for all at all ages"

By strengthening national prevention services for NCDs, it is supporting the SDG commitment to reduce by one third premature mortality from non-communicable diseases through prevention and to promote well-being (**SDG 3.4**).

By using mobile technology to make services more accessible to more people, it is promoting the achievement of universal health coverage, including access to quality essential health-care services (**SDG 3.8**).

By helping establish mobile-based cessation services it is supporting the implementation of a comparatively neglected area of tobacco control advocated by the World Health Organization Framework Convention on Tobacco Control. This promotes the commitment of **SDG 3a** on advancing global tobacco control.

SDG 9:
"Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"

By promoting health provision as a function of ICT infrastructure, and the associated innovations in health care delivery, it is supporting the

commitment made by **SDG 9.b** to foster national innovation by supporting domestic technology development, research and innovation in developing countries.

SDG 17:
"Strengthen the means of implementation and revitalize the global partnership for sustainable development"

By promoting a multisectoral partnership model for mHealth, the initiative is supporting **SDG 17.17**'s commitment to encourage effective public-private partnerships for sustainable development. This includes facilitating horizontal collaboration between countries as identified by **SDG 17.6**, by sharing knowledge and expertise through the initiative's global evidence base on mHealth for NCDs.

Phase II

Over the next four years, Phase II of the initiative's work will come into effect.

This will see the core work from Phase I continue, with an expansion of certain areas, in recognition of shifting priorities in national health systems.

SCALE

Scale mHealth work in countries. Support national mHealth programs in 10+ countries

Scale up the number of handbooks. Create new handbooks for NCDs and diseases where there is co-morbidity (e.g. mTB-Tobacco)

BUILD

Build global mHealth capacity by establishing regional mHealth innovation hubs

INNOVATE

New content. Identify new research areas with academic experts

New capacity. Build innovation channels into governments.

GENERATE

Generate best practices on scalable mHealth

What does this mean for our work?

Phase II will see more focus on helping more countries develop mHealth services for NCDs. This is partly in response to the request submitted in 2016 to the WHO Executive Board by Member States for guidance on mHealth implementation.

There are several ways to achieve this scale-up of support. The first is the creation of one or more mHealth knowledge and innovation 'hub', based on a research model used by other public health areas such as HIV/AIDS and tobacco control. Hubs will act as a repository for mHealth experience and research from particular regions or on specific topics. In addition the initiative will look at how to increase bilateral collaboration between countries to share knowledge and experiences, as well as how global partners can support mHealth services.

Phase II will also see a growing emphasis on digital innovations. In Phase I, programs were primarily SMS-based, based on existing clinical trial evidence. In Phase II, ***Be He@lthy, Be Mobile*** will work with academia, countries and global partners to look at how new types of digital innovations can meet Member State needs – again, as part of a concerted effort to address the request made during the EB for support on assessing new technologies.

Finally, the work will focus on content integration. As a major ongoing challenge for public health, the focus will remain on NCDs. However, an important element will start to explore how NCD systems can integrate with other areas of disease control. This is because public health systems can no longer afford to follow a vertical approach to health care.

Be He@lthy, Be Mobile is already looking at how this could work in a joint service on tobacco cessation for patients with tuberculosis (mTB-Tobacco). Other areas are expected to develop over the next 4 years.


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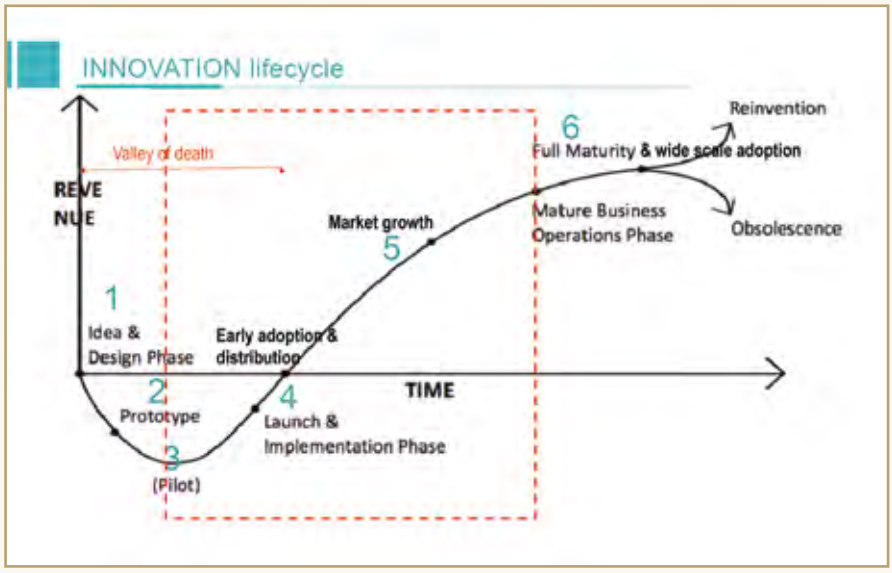
VI. Innovations

Overview

Digital technology and especially mobile phones and smart phones have disrupted almost all aspects of life. Mobile technologies in the form of apps, devices, connectivity solutions amongst others have created opportunities for businesses with and for people who were previously outside access to financing, insurance and health services.

In healthcare, mobile and digital innovations can take place at every level of the value chain and benefit a range of different ecosystem stakeholders - from the patient, the community health worker, the health administrator to the policy-maker. Mobile and digital innovations can come in the form of new devices and products, new business models, but also as new ways to deliver services and new ways for organizations to interact with the citizens on health issues.

However, as new high-potential technologies and solutions emerge, there appears to be a gap between different stakeholders around their level of understanding or awareness of key needs, and their capacity or desire to transform these needs into sustainable models or business opportunities.

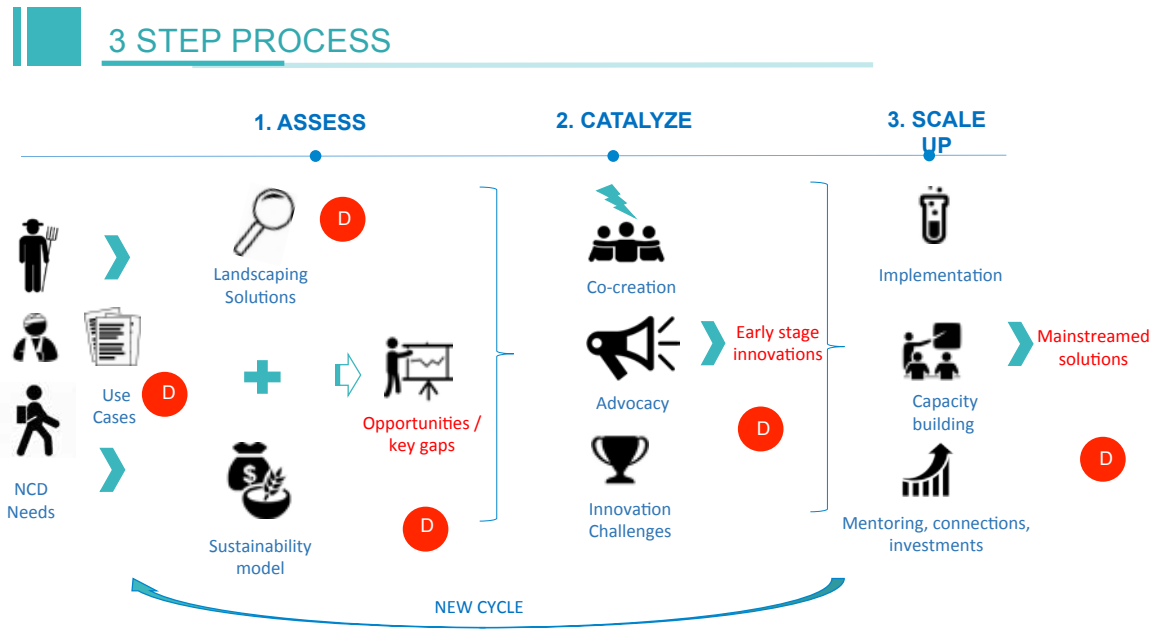


A key area for the phase II strategy is to take a more active role in terms of facilitating the dialogue and brokering appropriate partnerships between key stakeholders to promote the development and adoption of high-potential mobile and digital health innovations. For this, BHBM will start to assess key areas where new approaches to NCD prevention and management could improve public health outcomes. It will then work to catalyze, integrate and scale up solutions that address these gaps.

By collaborating with the appropriate stakeholders – including social entrepreneurs, governments, the ICT industry and the global health community - the initiative aims to make the global health community benefit from new technologies which offer simple, affordable and scalable solutions to health problems. These tools should support some of the improvements in health service quality, accessibility and affordability which are demanded by the 2030 Sustainable Agenda, in a highly sustainable and scalable way.

Approach

Cross-sectoral collaboration is a core part of ensuring that new technologies are appropriate for users, scalable by governments, and effective for health outcomes. Input from all user and provider groups is necessary in order to see an innovation move through the full cycle from invention to adoption and large-scale uptake.



STEP 1: Working out what to do

To do this, the initiative will document digital and mobile health needs for NCDs.

This will include mapping quality solutions that respond to country needs and identifying critical gaps where innovation is needed. Topics will cover:

Market analytics (size, barriers, and levers) and proven business models will we brought into the equation and factored into the gap analysis

A human-centered design approach will be used to consider NCD needs from local user perspectives.

a. Solutions landscaping will also look at different business models

b. Cross-sectoral engagement through workshops

STEP 2: Doing it

Once we understand the problems, we can help find better solutions to address them.

We will build on some of the critical gaps identified in part 1) through digital and mobile health innovation challenges for NCDs.

A set of issues needing to be solved will be selected and a challenge launched to look at how technology could help provide solutions.

These solutions will be looked at by participants from the full range of sectors whose input could affect the uptake and impact of a new solution. Adopting an ecosystems approach to the development of new tools should help the technology remain in touch with the context where it is hoping to be used – meaning it will solve problems instead of creating new ones.

mHealth Hubs

What is a Hub?

There is an increasing body of research that documents how mHealth can help with specific health issues, particularly around behaviour change. However, in many areas more knowledge is needed. Innovation is happening at all levels, and there needs to be a way to centralize the flood of learnings coming in.

Health agencies have solved some of these issues for other diseases using Knowledge and Innovation hubs. These are regional research centers which collect and coordinate knowledge from a specific field from around the world. An mHealth hub will help identify trends in innovations, highlight gaps in policies and regulations, and develop best practices in applying new tools or policies. It will also help countries use these best practices when designing their own national mHealth programs.

Be He@lthy, Be Mobile will support the founding of mHealth hubs and act as a coordinator to link them together. Hubs will build on the experience and processes developed by the initiative, but will extend beyond the programs already being run in existing partner countries. They can be hosted and co-run by approved partner organizations and will see independent activities develop depending on a region's particular are of interest or expertise.

Selection criteria for Hub Host:

I. Knowledge

Experience from the field of mHealth and/or digital health

Strength and quality of the proposal, including governance mechanisms, as well as national and international collaboration

Human resources in terms of management, competence, experience, Project Management experience, publications, mix of local and international staff, etc.

II. Sustainability

Ability to attract funding

Support from government or other source of long-term funding; sustainability

How will Hubs be selected?

The process for selecting and establishing a Hub host has three stages.

Stage 1: Set-up

The aim of this first stage is to select and prepare a host for the hub, selecting from a pool of shortlisted candidates.

Stage 2: Launch

This stage focuses on training and transfer of knowledge and process tools from the BHBM program to the hub personnel.

Stage 3: Independence

After an initial period direct support from the BHBM initiative will be phased out and the hub will act as an independent entity. The aim of this is to create a sustainable resource which can function independent of external support. While Hub will no longer receive direct support from the BHBM initiative, it is assumed that there will be close collaboration and interaction between the two entities.

Who can apply to become a Hub Host?

- ✓ Academic organizations with experience in mHealth/digital health
- ✓ Independent research institutes
- ✓ Commercial entities with knowledge and understanding of research and innovation in public sector/health sector
- ✓ Consortiums composed of any one of the above

VII. The Road Ahead

The conclusion of Phase I marks the end of the initial mission of the initiative. But with Phase II the work is not only continuing but expanding to meet new global expectations for digital health.

The first four years have started the journey on finding out what works for mHealth, but we are only starting to understand some of the successes, challenges and possibilities the technology offers public health.

By collecting and collating global experiences, we are moving closer to the answers. But there are years of work ahead to identify them.

As with all good stories then, the end is only the beginning.

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Annexes

Annex 1

Steering Committee

The *Be He@lthy, Be Mobile* Steering Committee is composed of the following members:
Dr. Nicholas Banatvala, Senior Adviser to the Assistant Director General, Non-communicable Diseases and Mental Health, WHO
Dr. Douglas Bettcher, Director, Prevention of Non-communicable Diseases, WHO
Dr. Edward Kelley, Director, Service Delivery and Safety, World Health Organization
Mr. Kemal Huseinovic, Chief of the Infrastructure, Enabling Environment and E-Applications, ITU
Dr. Eun-Ju Kim, Regional Director for Asia and the Pacific, ITU
Mr. Yushi Torigoe, Deputy to the Director and Chief of Administration & Operations Coordination, ITU

Informal Expert Groups

Three Informal Expert Groups (IEGs) have been established to date:

1. **mTobaccoCessation**:

Dr. Lorien Abroms, Associate Professor and Director of Public Health Communication and Marketing, George Washington University, Washington DC, USA
Dr. Erik Auguston, Program Director in Tobacco Control Research, National Cancer Institute, Bethesda, MD, USA
Dr. Caroline Free, Senior Lecturer in Epidemiology, London School of Hygiene and Tropical Medicine, London, UK
Dr. Pratima Murthy, Chief of De-addiction Services, National Institute of Mental Health and Neurosciences, Bangalore, India
Dr. Robyn Whittaker, Public Health Physician, Waitemata District Health Board, New Zealand

2. **mDiabetes**:

Dr. Line Kleinebreil, Primary Care Physician, Paris, France
Dr. Ambady Ramachandran, Researcher, Indian Diabetes Research Foundation, Chennai, India
Dr. Nalini Saligram, CEO, Arogya World, Napierville, IL, USA
Dr. Nikhil Tandon, Professor, All India Institute of Medical Sciences, New Delhi, India
Dr. Nigel Unwin, Professor of Public Health and Epidemiology, University of

the West Indies, Cave Hill, Barbados
Dr. Josefien Van Olmen, Institute of Tropical Medicine, Antwerp, Belgium
Dr. Robyn Whittaker, Public Health Physician, Waitemata District Health Board, New Zealand

3. **mCervicalCancer:**

Dr. Surendra S. Shastri, Professor and head of the Department of Preventive Oncology, Tata Memorial Centre in Mumbai, India, and head of the World Health Organization's (WHO's) Collaborating Centre for Cancer Prevention, Screening and Early Detection
Dr. Rengaswamy Sankaranarayanan, Special Advisor and Group Head of Screening at the International Agency for Research on Cancer
Prof. Groesbeck Parham, Director of the CIDRZ Cervical Cancer Prevention in Zambia, and Professor of Gynecologic Oncology, Department of Obstetrics and Gynecology, University of North Carolina
Ms Raveena Chowdhury, Deputy Director, Cervical Cancer Prevention, Marie Stopes International
Dr. Achim Schneider, MD, MPH, Professor and Chairman, Department of Gynecology and Gynecologic Oncology, Charité University Medicine Berlin
Dr. Patrick Petignat, Head of Surgical Gynecologic Oncology Unit, University Hospitals of Geneva
Dr. Dan Murokora, MD, Clinical Director of the Uganda Women's Health Initiative and former Director of Obstetrics, Masaka Regional Hospital, Uganda
Dr. Mauricio Maza, Medical Director, Basic Health International
Dr. Achim Schneider MD, MPH, Professor and Chairman, Department of Gynecology and Gynecologic Oncology, Charité University Medicine, Berlin
Dr. Karen Yeates, Associate Professor, Department of Medicine, Queen's University, and Co-Director, Office of Global Health, Queen's University School of Medicine, and Director, Pamoja Tunaweza Research Centre, Tanzania

From WHO Regional Offices:

Benoit Varenne, Elisa Prieto, Nyo Nyo Kyaing, Clayton Hamilton, Ahmed Mohamed Amin Mandil, Heba Fouad, Hani Farouk Abdel Hai Mohamed, Angela Pratt, Kelvin Khow, Mark Landry and David Novillo Ortiz.

From ITU Regional Offices:

Karim Abdelghani, Cleveland Thomas, Sameer Sharma, Ali Drissa Badiel, Aurora Rubio, Chali Tumelo.

Annex 2

Financial Overview: Income and Expenses

The 2015/2016 figures have been restated to reflect actuals for that period. The 2016 figures include commitments as at December 31st 2016 and are unaudited pending finalization of the 2015 financial period. Revenue figures exclude transfers to WHO. Expenses across all years include ITU's Administrative Agent costs of 1%. Where applicable, figures in Swiss francs (CHF) and euros (EUR) have been converted to United States dollars (USD) using the average UN operational rate of exchange for the relevant financial period.

Table 1. Funds raised by sector for 2013-2016 (in US dollars)

	2013	2014	2015	2016	2017+	Total
Pharmaceutical	104,895	150,000	648,006	241,278	440,000	1,584,179
Health insurance/ wellness	150,000	350,000	500,000	250,000	-	1,250,000
Telecoms/technology	71,429	-	71,429	-	345,000	487,858
Bilaterals/ foundations/ governments	-	140,959	545,354	685,529	332,086	1,703,928
Multilateral				-	3,300,000	3,300,000
All Sectors	326,324	640,959	1,764,789	1,176,807	4,417,086	8,325,964
Total			**USD 3,908,879**		**4,417,086**	**8,325,964**

In-kind contributions

Non-financial support from partners, countries and academic institutions include:

Donor	In-kind support
WHO	Additional Staff to Secretariat & Steering Committee
ITU	Additional Staff to Secretariat & Steering Committee; support for Telecoms 2012
IFPMA	Publication "Health at your fingertips"
The NCD Alliance	Advocacy support, support to mDiabetes Handbook
University of Cambridge	Financial modeling seminar and Monitoring & Evaluation Framework, March 2013
University of Southern California	Workshop on mSmartLife, February 2014
University of Oxford	Workshop on mHypertension, January 2015
AIIMS, University College of Medical Sciences	Workshop on mAgeing, November 2015
Norwegian Directorate of eHealth	Additional Staff to Secretariat
American University of Cairo	Workshop on mTB-Tobacco February 2016

Secretariat Operating Income & Expenses, 1 January 2016 – 31 December 2016, in US dollars

INCOME	2013-2015	2016	2013-2016
Total Income	**2,732,072**	**1,341,754**	**4,073,825**
Voluntary Contributions	2,386,472	1,332,791	3,719,263
Cash Contributions	344,313	-	344,313
Interest Earned	1,286	8,963	10,250

EXPENSES	2013-2015	2016	2013-2016
Total Expenses	**1,874,641**	**1,438,302**	**3,312,944**
Global Activities Subtotal	**1,096,783**	**950,433**	**2,047,215**
Programme Coordination and Management (staff to support global and country activity)	631,228	848,182	1,479,410
Toolkit Development	355,234	83,395	438,629
Promotion & Partnership	110,321	18,856	129,177
Country Activities Subtotal Program Planning and Implementation Support	**639,928**	**302,480**	**942,408**
Costa Rica	166,551	10,113	176,664
Egypt	-	2,220	2,220

EXPENSES	2013-2015	2016	2013-2016
Norway	64,252	16,479	80,731
Philippines	54,376	36,255	90,631
Senegal	165,098	45,318	210,416
Tunisia	27,551	25,151	52,702
UK	20,104	5,643	25,747
Zambia	38,263	113,607	151,869
India	76,894	38,407	115,301
Others	26,839	9,287	36,126
Operations Subtotal	**137,931**	**185,389**	**323,320**
Administrative and Operations Services	113,481	149,725	263,207
ITU Administrative Agent's Cost (1%)	20,436	3,281	23,717
Bank Charges and Other	4,013	32,383	36,396
Remaining Funds	**857,430**	**(96,548)**	**760,882**

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