ITU and UNESCO Regional Digital Inclusion Week
22-28 September 2019

"Health, Education and Big Data for enhancing wellbeing"

Concept Note

Overview

The International Telecommunication Union (ITU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) will be organizing ***a Regional Digital Inclusion Week for the Arab States*** during the period 22-28 September 2018 under the theme "***Health, Education and Big Data for enhancing wellbeing***". In line with our overarching theme, the Week will seek to enlarge the space for participation and to enhance individual and societal well-being and the attainment of the 2030 SDGs by leveraging ICT as an enabler. The Week will give attention to initiatives in this space with a view to sharing case studies and experiences, identifying best practices and contributing to the adoption and development of more effective policies.

For 2019, the Week will in particular shed light on the game-changing role that digital inclusion can play in enhancing wellbeing through health and education to combat non-communicable diseases (NCDs) which are today the leading cause of deaths worldwide. The week will explore the contribution that education and big data can play in managing NCDs and enhancing well-being.

The Week will coincide with the celebration of UNESCO's "International Day for Universal Access to Information (IDUAI)", which is celebrated on the 28th of September each year. Access to information is directly linked to the enjoyment of basic rights and freedoms and influences the achievement of all the Sustainable Development Goals. Being a well-informed citizen means being knowledgeable, having a critical mind, and being able to play an active part

in community and national life. It means having access to knowledge essential to one's health and well-being. It means having the educational resources that make it possible to enjoy lifelong learning and adapt to an ever-changing socioeconomic environment. It means unlocking one's creative and innovative potential.

Health, Education and Big Data

Health: According to the World Health Organization (WHO), 41 million persons die from NCDs each year accounting for 71% of all annual deaths[1]. Almost 40% of persons who die from NCDs are between the ages of 30 and 69 and most of these deaths, over 85% of them, occur in low and middle income countries. The loss of this highly productive segment of the workforce is a constraint on economic growth. Research has shown that four categories of NCDs namely, cardiovascular diseases, cancers, respiratory diseases and diabetes account for 80% of all NCDs deaths. Furthermore, the risk of death from these NCDs is increased by a lack of exercise, unhealthy diets, tobacco usage and high consumption of alcohol. By having regular health checkups and incorporating behavioral and lifestyle changes the risks of acquiring an NCD can be lowered and/or more successfully managed. Good health contributes to a productive workforce and broader human well-being, this is prominently reflected within the 2030 Sustainable Development Goals (SDG). An entire goal, SDG 3 focuses on ensuring healthy lives and promoting well-being for all persons at all ages.

Education has the potential to change the lives of citizens. Education provides key communication skills and literacies, including digital literacies, that enable citizens to seek, receive and share information and create knowledge. This knowledge enable citizens to assume and fulfil their societal roles, rights and responsibilities and enhance their well-being. By leveraging their knowledge, citizens can make lifestyle and behavioral choices that enhance their longer term well-being. For example, by understanding and acting on the knowledge of the impact that diet and physical activity have on health, citizens can reduce and better manage their risk for NCDs. A 2011 study by the WHO[2] suggests that lower education levels are associated with increased incidence of NCDs. Accordingly national efforts to achieve SDG 4 which seeks to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all persons also positively contributes to the realization of SDG 3. The advent of smartphones and other ICTs enables learning to take place in a variety of format at practically any time. This in turn enables repetition, supports positive reinforcement of learning and the internalization and adoption of this learning as habits. So digital educational tools and

[1] WHO Noncommunicable diseases, published 1 June 2018 https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

[2] WHO Global status report on noncommunicable diseases 2010, published April 2011 https://www.who.int/nmh/publications/ncd_report_chapter2.pdf

resources can support behavioral changes that reduce the risk of contracting NCD and improve their management.

Big Data refers to vast sets of data which are generated rapidly, often in real time, from a variety of sources and in a variety of formats[3,4]. In the past, the provision of care to individuals relied primarily on their medical histories, vital signs and other information collected during examinations. Today, we have the ability to collect and analyze large diverse data sets from populations and also take into account environmental and other factors. The use of big data is now enabling the identification of persons likely to benefit from specific health interventions and to enable more effective and efficient healthcare delivery. While the use of big data in low and middle income countries has significant challenges, these countries potentially stand to reap the greatest benefits from the use and application of big data. In particular, the high penetration and wide availability of smartphones and other electronic devices in developing countries provide new, innovative approaches to data collection. A number of case studies, such as the tracking of cell phones to map the spread of malaria in Kenya have demonstrated this potential[5]. At the same time however, the use of data presents new challenges. It raises questions around user awareness and education, user privacy, data ownership and safeguarding users from the misuse of their data. Regulators, industry, consumer protection bodies and other stakeholders are mounting defenses against these and other challenges. Through the collection and aggregation of data in real time insights can be gained and predictive models developed that inform healthcare policy and decision-making leading to improved citizen health and well-being.

The Digital Inclusion, Health, Education and Big Data Nexus

Digital inclusion is concerned with enabling persons to effectively access, use information and communication technologies (ICTs) to create knowledge and apply it in their daily lives to achieve their full potential, lead empowered lives, and effectively participate in their communities. Today, more and more countries are embracing digital strategies and providing educational, health and a variety of public services and resources online. These new approaches are transforming service delivery. Digital health services offers many potential benefits including increased access to health services, faster diagnosis, supporting continuing professional development of health workers, reduced costs and greater flexibility for users. To ensure that all citizens can effectively access service strategies that place digital inclusion at their core become essential. A range of considerations including user skill level, connectivity,

3 A formal definition of Big Data based on its essential features, Library Review, Volume 65. Issue 3 published 2016
[4] WHO Bulletin - Policy & Practice: Big data in global health: improving health in low- and middle-income countries Published January 2015 https://www.who.int/bulletin/volumes/93/3/14-139022/en/
[5] Mobile phones and malaria: Modeling human and parasite travel, published February 2013 https://www.sciencedirect.com/science/article/abs/pii/S1477893913000057

relevant content, accessible content and devices need to be taken into account.

By taking into account digital inclusion criteria, leveraging access to information and knowledge particularly health information coupled with appropriate pedagogical models and the insights gained from big data it may be possible to significantly reduce the impact of NCDs.

How to get involved

The 2019 ITU-UNESCO Regional Digital Inclusion Week for Arab States will build on the success of earlier ITU-UNESCO Regional Week for Arab States organized by ITU and UNESCO in 2017 and 2018 respectively.

Adopting a multi-stakeholder approach, the Week will bring together Governments, other UN and intergovernmental bodies, civil society, academia, healthcare professionals, the private sector and citizens in advancing digital inclusion efforts. The Regional Digital Inclusion Week is thus an opportunity to raise awareness, strengthen collaboration amongst stakeholders and advance efforts to combat NCDs across the Arab region. ITU and UNESCO are therefore inviting stakeholders across the Arab region to organize at least one activity during this Week, to shed light on their key activities in this domain, whether at the national or regional level. Stakeholders are free to design the nature, scope and location of activities and associate them to the Week, as long they reflect the theme of Health, Education and Big Data for enhancing wellbeing in the Arab region. **The online form on the event website can be used to make your submissions, which should be received before 31 June, 2019.**

We invite you to follow us on social media under the hashtag #Digitalinclusionweek,
Further information can be found on our website.

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