The WHO Global Coordination Mechanism on the Prevention and Control of Noncommunicable Diseases (GCM/NCD) Working Group on health education and health literacy for NCDs was formed under Objective 3 of the GCM/NCD 2016-17 work plan to provide a forum to identify barriers and share innovative solutions and actions for the implementation of the WHO Global NCD Action Plan 2013–2020 and to promote sustained actions across sectors.

**Action 3.3:**

Establish a Working Group in 2017 to recommend ways and means of encouraging Member States and non-State actors to promote health education and health literacy for NCDs, with a particular focus on populations with low health awareness and/or literacy, and taking into account the cost-effective and affordable interventions for all Member States contained in Appendix 3 of the WHO global action plan for the prevention and control of noncommunicable diseases 2013–2020.

The Working Group is co-chaired by representatives of two Member States, appointed in consultation with all Member States:

- Dr Lixin Jiang, Assistant Director of the National Centre for Cardiovascular Diseases; Co-Director of China Oxford Centre for International Health Research; Editor-in-Chief, The Lancet China
- Professor Sergey Boytsov, Director, National Research Center for Preventive Medicine, Ministry of Healthcare of the Russian Federation


The present interim report elaborated by the WHO GCM/NCD Working Group 3.3 provides insight into the Working Group’s ongoing reflections and preliminary findings. The Working Group will build on this interim report in preparing its final report containing guidance and recommendations for Member States and non-State actors to effectively increase health literacy in addressing NCD prevention, control and management.
Using Health Literacy to impact on NCDs in the SDG-era

1 Why a Call to Action on NCDs through Health Literacy?

The United Nations ECOSOC (United Nations Economic and Social Council) Ministerial Declaration of 2009 provided a clear mandate for action: “We stress that health literacy is an important factor in ensuring significant health outcomes and in this regard, call for the development of appropriate action plans to promote health literacy.”

In 2014, through the Outcome Document of the High-level Meeting of the General Assembly on the comprehensive review and assessment of the progress achieved in the prevention and control of NCDs, Ministers and representatives of States and Governments committed to address NCDs as a matter of priority in national development plans, and to take, among others, the following measures with the engagement of all relevant sectors, including civil society and communities, as appropriate “To continue to develop, strengthen and implement appropriate multi-sectoral public policies and action plans to promote health education and health literacy, with a particular focus on populations with low health awareness and/or literacy.”

The Shanghai Declaration recognized, in 2016, that “Healthy living and increased wellbeing for people at all ages can be only achieved by promoting health through all the SDGs and by engaging the whole of society in the health development process.”

Through the Shanghai Declaration, Member States committed to invest in health literacy through:

- The recognition that health literacy is a critical determinant of health and there is a need to invest in its development;
- To develop, implement and monitor intersectoral national and local strategies for strengthening health literacy in all populations and in all educational settings;
- To increase individuals control of their own health and its determinants, through harnessing the potential of digital technology (digital or e-health literacy);
- Ensure that consumer environments support healthy choices through pricing policies, transparent information and clear labelling.

Driven by trends including globalization, urbanization, growing inequities and population ageing, and accelerated by five leading modifiable behavioural risk factors – tobacco use, harmful use of alcohol, physical inactivity, unhealthy diet and air pollution, NCDs - mainly cancer, cardiovascular diseases, diabetes, and chronic respiratory diseases and mental disorders- are now the leading cause of death and disability worldwide. Noncommunicable diseases impose a huge burden in health costs and lives cut short, which extends well beyond health to undermine multiple aspects of national development,
including workforce productivity, economic prosperity, social welfare, education and quality of life and wellbeing at individual, household, national, and global levels. Each year, 38 million people die from NCDs, primarily from diabetes, cardiovascular diseases, cancers, and chronic respiratory diseases. Of these deaths, approximately 15 million are premature (between the age of 30 and 70). Dramatically, most premature deaths from NCDs (representing 27% of all global deaths) could have been prevented. The negative effects on societies, economies and health systems are felt in all countries, but the consequences of the NCD pandemic has been most severe in countries with weak economies and social structures that are struggling to build their health systems to respond to this critical development challenge. The probability of dying prematurely from an NCD is four times higher for people living in low and middle-income countries (LMIC) than in high income countries. This is resulting in a vicious cycle whereby NCDs and their risk factors worsen poverty, while poverty contributes to rising rates of NCDs. This reduces productivity, curtails economic growth, and traps populations in poverty - threatening the achievement of the Sustainable Development Goals 2016-2030 in high and low-income countries alike.

The commitments, tools and frameworks are in place. Heads of State and Government have made political commitments\(^2\) to tackle NCDs (2011\(^3\), 2014\(^4\), and 2015), a road map, a menu of policy options and interventions are available, a monitoring framework is approved, and there is readiness to move from planning to action. However, there is clear evidence of insufficient uptake and implementation of programmes and of key indicators for NCD prevention and control in most countries to mitigate this burden, or in many cases they do not reach a sufficient proportion of society due to scarce financial resources as well as the capacities\(^5\). Through WHO’s Global NCD Action Plan 2013-2020\(^6\), cost-effective and high-impact ‘best buy’ interventions to prevent and control NCDs are available and, at individual level, they cost next to nothing. Evidence shows that an additional US$1.27 per person per year in LMIC will save 8.2 million lives, achieve a 15% reduction in premature mortality from NCDs and generate US$350 billion in economic growth by 2030\(^7\) through the implementation of cost effective interventions such as the WHO best buys included in Appendix 3 of the WHO. To ensure that these interventions are scaled up and delivered in an efficient and effective manner and have the desired impact especially considering the prevailing economic difficulties and the lack of funding for NCDs, a paradigm shift in our approach is necessary. As part of the 2030 Agenda for Sustainable Development, world leaders agreed to by 2030, to reduce one third of premature deaths from NCDs through prevention and treatment, and by promoting mental health and wellbeing (SDG target 3.4). Attaining SDG target 3.4 on NCDs will also create co-benefits for many other SDG targets by reducing poverty, hunger and inequity to ensure that all human beings can enjoy prosperous and fulfilling lives, and that economic progress occurs in harmony with health and well-being.


\(^2\) At the General Assembly of the United Nations High-level Meetings on Non-communicable Diseases


\(^4\) Available at [http://www.who.int/nmh/events/2014/a-res-68-300.pdf](http://www.who.int/nmh/events/2014/a-res-68-300.pdf)


\(^6\) Available at [http://www.who.int/nmh/events/ncd_action_plan/en/](http://www.who.int/nmh/events/ncd_action_plan/en/)

\(^7\) Source: WHO report “Saving lives, spending less”
All health systems and service providers need to prioritize and utilize health literacy so that they provide services that are effective for all users and reach all members of society. This is especially important for NCDs because their corresponding risk factors, and the underlying social, economic and environmental determinants, are related to decisions and actions taken at the individual, community and the societal level. Health literacy is necessary for effective management of the causes of NCDs, i.e., for generating and understanding effective disease prevention systems (e.g., for tobacco control, healthy diet, harmful use of alcohol and physical activity), and also for the management of NCDs as people must access, understand and engage in lifelong disease management process. Thus, health literacy is seen as a key mechanism to improve NCD prevention and management systems.

**Individuals** need health literacy to access, understand, appraise, retrieve and use information and services to make adequate decisions about health. Health literacy includes the capacity to communicate, assert and enact these decisions.

**Communities and Society,** as a whole need health literacy so that no one is left behind. Community health literacy is the assets and capacities existing within communities that promote health for all. It includes the number of people who have strong and retrievable health knowledge and who may influence decisions about health with in the community. Community Health Literacy may also include - the availability of trustworthy information across a community, and the number and accessibility of places at which community members can receive and share credible information. The stronger the health literacy across a community is, more likely individuals and families with low health literacy can be supported and not left behind.

**Healthcare, health promotion systems, work places and schools** need to understand and use health literacy so that environments, services and products enable health information and services to be accessible to all people across societies. This will also maximize disease prevention and management efforts to ensure no one is left behind so that every country reaches the 2030 UN Sustainable Development Goals (SDGs).

**Governments** need ensure to ensure that health systems are responsive to the health literacy needs of all individuals. This means ensuring policies and programmes use health literacy to optimise services (e.g., UHC, screening, prevention efforts) and enable them to be more inclusive and effective for more people. Health literacy should be the core of all programs and policies. Poor health literacy has been associated with increased health care costs, including delayed or inappropriate use of health services. It is therefore important that governments take action to improve the health literacy of the population and to make health literacy more responsive to the needs of the community.

**Health literacy** refers to the personal characteristics and social resources needed for individuals and communities to access, understand, retrieve, appraise and use information, services and information communication technologies (ICT) to make decisions about health. Health literacy includes the
capacity to communicate, assert and enact these decisions.

Health literacy responsiveness describes the way in which policies, services, environments and products make health information available and accessible to people with different health literacy strengths and limitations.  

2 How can health literacy be operationalised in the policy agenda?

There are two existing platforms for health literacy policy, one is a standalone health literacy policy that seeks to guide cross-sectoral health literacy actions and programs, the other is the integration of health literacy principles and practices within existing policies, i.e., within current NCD policy and strategies. A potentially effective way to integrate specific health literacy policies and the overall policy context is the so-called “health literacy by design”, embedding health literacy components in programme areas where health literacy is known to be a clear determinant of access, engagement or use of health information and health services. The strongest policy structure may be where there is a combination of standalone and integrated policy. A standalone policy may give health literacy greater profile and thus may attract specific funding, whereas an integrated policy may enable health literacy to be better integrated into practice. Examples of these policy approaches exist in some countries.

- Countries with examples of specific standalone health literacy policies: Scotland, USA, Austria.
- Countries with examples of integrated health literacy policies and programmes that have been integrated into NCD and related health policies: Australia, New Zealand, Myanmar, China, Canada

Figure 1 Overview of the link between health messages, health literacy and health outcomes.

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The development of health literacy and how it leads to outcomes

**Conditions that determine political and sociocultural environment:**
National security, Development status, Health care system strength, Gender equality, Education policy & systems, Endemic belief systems, Advertising, Marketing etc.

**Individual, Family & Community:** Exposure/non-exposure to health [or anti-health e.g., risk factors] messages and health opportunities, social, commercial and environmental determinants of health

**Knowledge, understanding of health**

**Cultural and religious practices, existing beliefs, community conversations, health-literacy responsiveness of practitioners & system**

**Understand and respond to Health literacy needs**
(Individual & community health literacy strengths & weaknesses)

**Respond to health literacy diversity** to enable improvement in health behaviours of individuals & people around them (e.g., control of risk factors, lifestyle, participation in screening, treatment, ability to advocate)

**Wellbeing, health outcomes & equity**
3 What are the Elements of a comprehensive health literacy strategy?

To curb the growing epidemic in NCDs and to meet the NCD and NCD-related SDG targets, bold action must be taken. The Eight broad areas for action include:

a. Developing a national policy, strategy and action plan to implement health literacy demonstration projects, collate local and international evidence, and build capacity among leaders (especially Mayors/Provincial/Community leaders, etc) to contextualize and embed health literacy programs across all sectors and all levels. To realize the benefits of a health literacy-augmented response to NCDs, dedicated long-term funding and capacity building is required that is aligned with national and context-specific targets.

b. Building a digital health system that maximises participation, ensuring digital products and processes, optimise reach and access, in particular for people with low literacy, disabilities and living in low resource settings. “Access” includes both physical access (i.e. a mobile phone, a computer, internet) and the skills to access, understand, retrieve, appraise and apply digital health-related information. Ensure developers and suppliers meet user, system and interaction requirements within e-health literacy framework.

c. Establishing national and regional collaborations for action, mandating multi-sectoral and multi-stakeholder partnerships to ensure health literacy is integrated within and across all sectors. To generate health and equity transformations over the coming decade, decision-makers need to take responsibility and ensure that multi-sectoral, co-designed processes across sectors such as education, employment, infrastructure, agriculture, industry, migration and others are engaged alongside the health sector.

d. Strengthening health literacy leadership through generating deep knowledge of the importance of health literacy among leaders and political decision makers, particularly through Mayors, provincial leaders, cultural leaders and village leaders.

e. Building individual health literacy through strengthening the education of children, and through health literacy-informed health promotion campaigns for mothers, families and the general population to ensure that people have adequate language, vocabulary and understanding of basic biology to speak about and address medical conditions. Education can also positively influence individual’s attitudes towards health, not only about the health promoting behaviours (to avert or minimise NCD risk factors), but to improve general attitudes about health, including why they should resist messages promoting unhealthy habits, when to engage in self-care and not seek costly or unreliable health services. It is also important to understand the diversity of health literacy strengths and weaknesses of individuals through national and targeted health literacy surveys. Such surveys may identify health knowledge gaps such as; that traditional diets are better than glamorised fast foods, what foods or behaviours are carcinogenic or obesogenic, or what health services they are entitled to receive at no cost. Such health literacy data will help not only understand the population but guide the development of contextually relevant interventions to build on
health literacy strengths and impact on health literacy limitations across the whole community.

f. **Building community health literacy** by undertaking detailed assessments of community capacity health literacy, i.e., the community resources (assets), such as new mother groups, men groups, religious groups, number of respected and knowledgeable village leaders etc, the community-level health literacy capacity can be understood. With these data, across communities or villages, measures can be undertaken to strengthen the health literacy in the environment people are living in.

g. **Building health literacy responsiveness of the health care system, generating people-centred and inclusive services and practitioners.** Provide adequate health literacy training at the undergraduate, postgraduate and professional levels so that they use appropriate simple everyday language to address and to speak about medical conditions and care options. When working with people and communities from different backgrounds, attention should be given to provision of an appropriate mix of written, visual and oral formats of materials to support learning. National incentives and awards for the health literacy responsiveness of services could be established to recognize and to promote excellence in meeting the community’s health literacy needs.

h. **Building partnerships with academia and industry**, and support corporate responsibility to enable community members to access healthy options as the cheap/easy/preferred/available option.

4 Specific actions to operationalise health literacy in preventing, controlling and managing NCDs and their shared risk factors

The eight broad areas above are outlined as areas for action to generate a comprehensive health literacy strategy.

It is important to note that health literacy investments must be context-specific - considering common barriers and opportunities alongside diverse strengths and limitations that both individuals and communities can have. This poses a challenge as local health literacy contexts dictate that one-size-fits-all approaches can be problematic (and could potentially generate health inequality) however general recommendations with clear links to key global policy initiatives are needed.

While many recommended health literacy interventions would build on existing policies and focus on a strength/value-based approaches, new health literacy-informed interventions will need to be built to ensure no one is left behind. To generate comprehensive impacts on NCDs, interventions will need to include those at the micro level (i.e., point of lifestyle decision / point of care decision) through to the macro (policy) level.

**Figure 3** The critical importance of health literacy diversity in explaining why one-size-fits all programmes are effective for some, but not all, members of society
The Working group identified five priority action areas. These are outlined below with specific activities that may be operationalised in low, middle and/or high-income settings.

4.1 Develop new and enhance current NCD programmes and policies

Health literacy is a tool that can be used to improve the reach, impact and effectiveness of new as well as existing NCD prevention, control and management programs. The health literacy concept therefore needs to be promoted across health, social and other sectors that directly or indirectly influence health. Given that current NCD programmes may neither reach all members of the community, nor are effective for all, action needs to be taken so that the ‘leave no one behind’ mission of the Shanghai Declaration and the SDGs can be enacted. Health literacy, including digital health literacy, can assist in this mission by being used as a specific tool to design new programmes and policies and to improve or enhance the reach and effectiveness of current programmes and policies.

Health literacy capacity of countries, however, needs to be strengthened. This means the inclusion of health literacy tools in routine processes by government sectors, academia, programme teams, NGOs and other non-State actors. The inclusion of health literacy concepts in policy and funding agendas and mechanisms to ensure communication/education programmes and NCD-specific interventions reach all community members.

It is important that governments take leadership in the development and implementation of health literacy and digital health literacy initiatives in support of impacting the burden of NCDs and, consequently, on the realization of the SDGs. Health literacy messages should be simple and understandable by all members of the community and ideally be developed and delivered in partnerships across sectors and with multiple actors, including industry and consumers.

For substantive impact to be achieved, Member States may need to develop new policies, and have well-formulated pathways for policies to be implemented. A coordination mechanism at national level should be a critical structure to ensure effective operationalisation of programs to generate substantive impact.
Below are some practical approaches to enhance current NCD programmes and policies:

- High priority NCDs, such as diabetes, cardiovascular disease, cancer, chronic respiratory disease, and mental health conditions can be used as a showcase to demonstrate the role and potential of health literacy in improving programmes to impact on NCDs and provide good practices for other NCDs.
- Diversify the workforce such that non-healthcare professionals are empowered and involved in service delivery settings where consumers can be supported in managing their long-term health conditions (i.e. NCDs, for example as regards adherence to lifelong treatment), particularly in setting goals and understanding what to do and why to do it. Non-healthcare professions/community health workers are an important resource as they have the potential to spend more time with people with low health literacy and support their understanding and engagement in self-management.
- Include health literacy goals in clinical management guidelines for the prevention, management and treatment of people with NCDs. Health literacy approaches, including digital health literacy need to be integrated into routine health and social service provision.

4.2 Improve the reach, quality and impact of new NCD interventions through incorporating health literacy in design and implementation

NCDs have a complex array of interconnected causes, determinants and risk factors, therefore for interventions to be effective they need to be delivered in a full range of settings and address a full range of elements. Many of the causes and the determinants of NCDs and the factors that impact on the effectiveness of NCD interventions are likely to be strongly related to health literacy. It is therefore important to establish a multi-stakeholder platform for the development, monitoring and evaluation of any health literacy programme or strategy to consider or address as many of these elements as possible so that the full range of interventions can be maximised and can be put in place across the causal pathways.

Multi-stakeholder designed initiatives are likely to be valuable and necessary when using health literacy approaches that aim at modifying and improving the impact of current programmes and building new interventions. However, all stakeholders (from individuals to central government) should be encouraged to engage in and co-design context-specific health literacy-informed or digital health literacy programs. Thus, clear national leadership is recommended to facilitate and accelerate reach and impact and to maximise knowledge sharing and capacity building.

Below are some practical approaches to enhancing current NCD programmes:

- To improve the community’s ability to find, understand and use the appropriate information to promote engagement in NCD prevention, control and management services. This can be done by incorporating health literacy into various means of mass communication to enhance the understanding and reach of the programs. The co-design of health literacy-informed interventions should be undertaken with community members in the context to which the interventions are to be applied. This generates a better fit of the interventions / refined services with the community, including opportunities for local ownership and embedding.
The NHLDPs (National Health Literacy Demonstration Projects) use the Ophelia (OPtimising HEalth Literacy and Access) process to enable systematic application of this approach.\(^9\)

- It is important to develop flexible and adaptable health literacy and digital health literacy tools and processes because the health literacy strengths and weaknesses of both individuals and communities vary considerably. These tools could then be made available for considerations in other countries in similar contexts to more rapidly expand the repertoire of interventions available.

### 4.3 Make health care systems health literacy responsive

*Health Literacy responsiveness* is broadly defined as the provision of services, programs and information in ways that promote equitable access and engagement, that meet the diverse health literacy needs and preferences of individuals, families and communities, and that support people to participate in decisions regarding their health and social wellbeing.\(^{10,11}\)

For countries with developing and/or under-resourced health care systems, the critical focus needs to be on two parallel activities; 1) health services actively supporting community members to understand available services and their rights of access, as well as 2) strengthening the range of services available and ensuring the accessibility of these services. This work also includes addressing social and commercial determinants of health and understanding how local cultures and religious beliefs affect access and use of services, and that these are respected and incorporated into the design and provision of services. In line with these priorities, it is necessary that health literacy is included in universal health coverage (UHC) service packages.

As health care systems are strengthened, ensuring they are health literacy responsive will increase the quality, reach and equity of services provided. Ultimately, health literacy responsiveness could be incorporated as an indicator within a monitoring and evaluation (M&E) framework, and thus promote continuous quality improvement.

Below are some practical approaches to enhancing health literacy responsiveness:

- Implement programs such as the Agency for Healthcare Research and Quality Health Literacy Universal Precautions Toolkit.\(^{12}\)
- Undertake regional or national surveys to understand the health literacy needs of the community and how services can respond to the identified needs.
- Develop local indicators of health literacy responsiveness.
- Incorporate health literacy indicators into M&E framework for health services.
- Use health literacy to evaluate the capacity of a health system to control and manage NCDs.

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\(^11\) Trezona A, Dodson S, Osborne RH. Development of the Organisational Health Literacy Responsiveness (Org-HLR) Framework in Collaboration with Health and Social Services Professionals. BMC Health Services Research 2017

- Implement programs that enable an organisation to become health literacy responsive.

4.4 *Build the health literacy of communities across the life course*

Community health literacy, in contrast to individual health literacy, relates to the collective strengths and weaknesses that may be present across a whole community (village, town, region, etc). Individual health literacy relates to the specific skills and abilities an individual may possess. Community health literacy includes the total number and strength of health literacy related assets in a community. These assets may include the number of individual community members with strong health literacy and who have influence on what the community believes and how they behave, the quality of information (oral, written, broadcasts), local services provide, and the health promoting customs existing either as embedded cultural beliefs, religious practices, or social norms. Communities with strong health literacy may be better able to resist negative commercial determinants (e.g. industry interference). Community health literacy also includes prevailing beliefs and trust in Western or traditional diagnosis and treatment approaches. A community may have a wide range of both positive and negative community assets that determine health literacy at the individual level.

Building community health literacy on specific topics such as infection control during Ebola or Avian Flu epidemics, or availability of a new service within UHC, can involve specific health education programs and positive effects can be observed over months. However, without strong health literacy-informed and digital health literacy approaches, people who are hard to reach, or for whom the standard health education approach is unsuitable, may be left behind. Long term strategies need to include school curriculum such that health literacy capacity is embedded into the understandings, conversations and action of future generations. A recent illustration of this, at least in part, has been health-related critical appraisal training of primary school children in Uganda. School children demonstrated improvement in their ability to assess claims about the effects of treatments from participation in nine lessons during school time.

Comprehensive generation of health literacy across the life course, vital for NCD prevention, control and management involves antenatal education for future parents, education for children and adults, and further education opportunities. In many cultures, information in communities is under the control of religious leaders and other community leaders. Therefore, the development and implementation of effective community health literacy programs will need to involve many stakeholders (see next section).

The strengthening of health literacy or digital health literacy of communities cannot be effectively accomplished using a top-down approach. Modern approaches to community engagement, including the genuine assigning of leadership to local communities is necessary. This is in line with the Shanghai Declaration with the locating of principal leadership among Mayors, Provincial leaders or Governors. The leaders need to be in context, be embedded in the communities, and be

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responsive to the people they directly serve. In effect, it is the local leaders who are best placed to uncover which health literacy and digital health literacy activities are required. Ultimately, responsibility for action and the autonomy to make decisions needs to be distributed across all stakeholders but following bottom-up prioritization and staying within the agreed framework.

Below are some practical approaches to understand and enhance community health literacy:

- Delivering health literacy and health education in all community settings such as schools, workplaces, cultural and religious places, community gardens etc.
- Undertake community health literacy surveys and/or community consultation to map community assets and needs.
- Identify strong communal and cultural practices to facilitate community engagement. This can be further aided by targeting and involving community leaders (political, religious and cultural leaders).
- Develop and implement programmes to enhance, strengthen and/or develop community level health literacy assets. Use community members as well as local leaders to co-design and implement programmes. Implement through religious leaders, chiefs, elders, teachers, and other local relevant authorities with power.
- Develop, train and support networks of community health workers who are members of local communities who provide health education, healthcare navigation support and advocacy at local level.
- Apply effective community education campaigns to promote healthy behaviours and dispel myths.
- Use systematic health literacy community intervention approaches such as the Ophelia (OPtimise HEalth Literacy and Access) approach that prioritizes local wisdom for intervention development and implementation.

4.5 Capacity building (educators and curricula; healthcare work force competencies; policy makers; researchers)

The capacity of most Governments to use health literacy as a tool to prevent, control and manage NCDs, and to respond to the NCD and NCD-related SDG targets, is limited. For national responses to become systematic and effective, capacity needs to be actively built through substantial investments. An overarching response by countries wishing to build capacity will be through the development of effective educational systems for multiple stakeholders, with short term and long-term targets, and assignment of accountability across key stakeholders. There are four broad groups that require focused development to increase the capacity of countries to realize systematic health literacy action these include Educational institutions, Policy makers, Healthcare professionals, and Digital health services.

Educational institutions (i.e. schools, technical training facilities, universities) already do some work in support of developing health literacy. School children in many countries receive extensive health education; however, specific programs are an exception. The most fundamental educational requirements are the basic concepts of biomedical health (including anatomy, reproduction, causal mechanisms and social determinants) with systematic processes to ensure both girls and boys are
supported to complete basic education programs. Given that health education curricula are often already crowded, health literacy concepts need to be incorporated into lifelong learning.

The education and training programmes of healthcare workers is a critical component of health literacy and digital health literacy responsiveness. This not only includes medical professionals, but nursing, allied health and community health workers. It is important that all health workers understand and respond to the health literacy diversity in their communities. Irrespective of the health literacy competency of any community member seeking care, healthcare workers should be able to maximise every single chance of understanding and providing the health information, treatment and services their community needs. Health workers should be trained to be health advocates for the community. In most settings, health workers require training, resources and infrastructure to reach this ambitious goal. This can be achieved by directing universities to adapt their priorities in medical education that should equally focus on social and environmental determinants, prevention and rehabilitation as on the treatment.

The vision for the WHO Competency Framework is to support policy-makers in scaling up and optimizing the health workforce through aligning education and training with health systems to meet escalating and changing population needs. The Framework will provide an ‘adopt and adapt’ model with a strong focus on meta-competencies and specific measurable objectives for the knowledge, skills, attitudes and behaviours required to deliver essential interventions across the continuum of care for UHC. The Framework’s new approach will focus on population needs and design curricula aligned to them. It will consider competencies that can be used across contexts and encompass multiple disciplines and levels of learning.

Digital health literacy should also be part of the curriculum at all institutions educating health professionals, providing an understanding of the providers and receivers of healthcare in relation to digital services.

Health literacy and digital health literacy is a relatively new field of research. While there is a growing number of academic publications from some countries (namely USA, Australia, Canada, China, and some countries in Europe), research is often academic project based and not incorporated into mainstream initiatives. A recent rapid review of health literacy from Nepal\(^\text{14}\), demonstrated that while health literacy has great capacity to impact on the SDGs, there is very little specific research on the topic. A substantial challenge for the field is the need for research on country-wide programs that, although not specifically called health literacy programs, do include numerous health literacy elements and are achieving health literacy outcomes for communities. The most striking example of this are large-scale programs involving village health workers such as those in India, Thailand, Egypt and other countries who are in effect with health literacy workers supporting households with topics such as maternal and child health, HIV/AIDS control and Hepatitis C management. In the past five years the breadth of research has greatly increased, as have the number of tools and approaches to apply health literacy in the fields of disease prevention and control.

\(^{14}\) Available at [https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2183-6](https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2183-6)
For the effective development of national and local systems that enable health literacy to be integrated into policy, programs and education systems, policymakers need to understand the relevance of health literacy, understand that it is a determinant of health, and that it is a key pillar for the achievement of the SDGs. More work needs to be done to provide roadmaps and case studies to empower policymakers to act on incorporating health literacy and digital health literacy into policies and programmes.

Some specific activities arising that will enable capacity building include:

- Health literacy and digital health literacy should be included in health professional training at each level.
- Government-led revision of curriculum for health care workers to prepare them for multi-sectoral and multi-stakeholder action to generate effective public health intervention to achieve the SDG targets.
- Develop local academic governmental platforms to educate and inform policy makers.
- Make use of international platforms (e.g. UN system) to inform parliamentarians/policy makers about importance and relevance of health literacy as a determinant of health.
- Engage media (journalists and community experts) to expand the reach of programs and to attract more stakeholders.

5.6 Research & innovation, and the systematic collation and dissemination of this information

There is a need to develop and test evidence-based approaches to understand health literacy and digital health literacy interventions for NCDs (and their risk factors and determinants), in different settings (from high income to low income countries), and in different cultures such that researchers in all regions of the world are equipped to rapidly build fit-for-purpose and effective interventions to promptly impact on NCDs. Measuring, evaluating and monitoring health literacy is also critical for identifying progress and groups at risk. This research priority is, in part, being implemented through the WHO GCM/NCD National Health Literacy Demonstration Project initiative with projects already underway in China, Egypt and Myanmar, with half a dozen more in the pipeline.

Digital health platforms such as mobile applications, websites and social media are cost effective ways with high potential to improve data collection, dissemination and health literacy at all levels.

Given the political mandate for health literacy, countries need to establish these as research priorities, and allocate adequate seed funding to promote innovation and substantial long-term funding for scaling up of health literacy initiatives. Specific emphasis must also be placed on digital health literacy and how this can be operationalised. It will be critical that the knowledge base is collated in real time to maximise global learning and to accelerate the generation of effective programs across contexts.

Governments should:
• Promote the establishment of and participate in local and regional communities of practice, including a repository of resources, that inform and support implementation and scaling of health literacy interventions.
• Promote and resource the development of trusted sources of information and use current technology and in particular current digital platforms to operationalize these.
• Enhance the resources for and strengthen the role of academia so that it is not only able to create evidence but also to communicate evidence and evaluate programs.