

A concept paper on health literacy

On behalf of the Swiss Federal Office of Public Health (FOPH)
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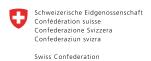
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Preface

This concept paper on health literacy has been developed on behalf of the Swiss Federal Office for Public Health (FOPH). It is the result of an intensive literature review as well as a process of discussions, reflections, and exchanges with multiple stakeholders in the field of health literacy and related fields, representing the three main linguistic regions in Switzerland. We therefore would like to express our sincere gratitude to all the experts, the interview partners, and the participants of the advisory board for sharing their perspectives and expertise on health literacy in Switzerland. The insightful discussions, reflections and the conceptualizing work have guided us towards a common understanding of health literacy – at least for the Swiss conditions – that provides a foundation for future actions.

1 Introduction

The current debates on health literacy in Europe originate from and are situated in the context of healthcare, disease prevention and health promotion (Sørensen et al., 2012). An increase in research also in Switzerland (e.g., the Health Literacy Survey 2015 of Bieri et al., 2016 and the Health Literacy Survey Switzerland 2019–2021 of De Gani et al., 2021) has led to growing attention towards health literacy. The concept and its outcomes have started to become an important element of political, societal, and academic agendas. The common ground of these agendas concerns the question on how health literacy can empower¹ people (i.e., individuals and collectives such as families, communities, groups and populations) in their health management, and thereby contribute to a well-being society (World Health Organization, 2022b).

1.1 Promoting health literacy as an objective of the strategy «Health2030»

The Swiss Federal Council's health policy strategy 2020–2030 «Health2030» is based on the Sustainable Development Goals (SDGs) and provides a framework for action in health policy with prioritized objectives to strengthen the Swiss health system in the upcoming years. The second out of eight objectives of the strategy is to promote health literacy of the resident population in Switzerland. Therefore, the strategy calls for concrete measures such as improving public information and supporting the management of information on health and diseases (FOPH Federal Office of Public Health, 2019). Furthermore, the National Strategy for the Prevention of Non-Communicable Diseases (NCD) 2017–2024 (Federal Office of Public Health [FOPH], 2016) includes the improvement of health literacy as a goal «to enable people to make their own decisions consciously in the light of the risks and potential consequences for their health» (FOPH Federal Office of Public Health, 2022). In Switzerland, health literacy is understood as a cross-cutting topic and measures are implemented as part of various public health strategies. However, there is no separate action plan for strengthening health literacy.

Nonetheless, to advance the issue of health literacy, the Swiss FOPH has appointed the Careum Center for Health Literacy to reflect upon the common conceptualizations and understandings of health literacy with a focus on Switzerland and to expand the definition and concept where necessary and appropriate. Thus, the present concept paper aims to shed light on the multi-facetted construct of health literacy, enhance its understanding, and provide a shared reflection on the concept of health literacy. Thereby, it illustrates how health literacy can be conceptualized in theory and elaborates on practice approaches.

1.2 Background

On behalf of the Swiss FOPH, the Careum Center for Health Literacy and gfs.bern (institute with expertise in political and communication research) conducted the "Health Literacy Survey Switzerland 2019–2021" (HLS₁₉₋₂₁-CH) (De Gani et al., 2021). The study results indicate that almost half of the adult population living in Switzerland (49 %) report frequent difficulties in dealing with health-related information, in particular with digital information and information to navigate the health system. Furthermore, the study illustrates the crucial interrelations of social and economic determinants of health (WHO, 2022b) and the association of health literacy and financial as well as social factors (De Gani et al., 2021). These and other study findings underline the ongoing need for action to systematically strengthen health literacy on the long term in order to empower people to manage their health and well-being as well as to address social and health inequities (Kickbusch et al., 2013; Schaeffer et al., 2018).

Considering the current grand global challenges related to public health, health literacy plays – more than ever – a fundamental role in and beyond health systems and people's well-being (WHO, 2021c). These global challenges include the *digitalization* and *digital transformation*, climate change and migration movements, geopolitical power shifts, demographic changes and the increasing number of NCD (WHO, 2022c), dysfunctional healthcare systems, as well as the *COVID-19 pandemic* (Su et al., 2016; Wu et al., 2020) – along with it an increasing uncertainty and mistrust in public authorities, scientific research as well as health professionals in general (Bromme et al., 2022).

 $^{^{\}rm 1}\,{\rm Specialized}$ terms are described in more detail in the glossary in Appendix B

1.3 Challenges through social, technical, and environmental developments

Initially, health literacy research and discussions emerged from debates in the United States on the difficulties patients encounter in the healthcare system (Parker, 2000; Parker et al., 1995). Early definitions of health literacy focused on the ability of individuals to apply basic reading and numeracy skills in the healthcare environment (Parker & Ratzan, 2010). This early concept understanding and focus on an individual's skill is overlapping with the concept of self-management, i.e., a concept which comprises how people with long-term illnesses and their relatives cope with their disease, and master their lives with the daily challenges they face (Kessler & Lasserre Moutet, 2022). In the context of self-management, self-management support (Kessler & Lasserre Moutet, 2022) and «therapeutic patient education» (mainly used in the French- and Italian-speaking regions of Switzerland) play an important role, aiming to «help a patient (or a group of patients and their families) to manage their treatment and prevent avoidable complications, while keeping or improving their quality of life» (WHO, 1998, p. 75). Based on these initial steps and moving beyond the medical and clinical setting, the public health community applied the concept of health literacy to people's everyday life (Kickbusch et al., 2013). At the same time, health literacy was included in the values and principles put forward by the Ottawa Charter for Health Promotion replacing the initial action area on individual skills (Kickbusch et al., 2013). Thus, health literacy evolved into a relational concept, covering an interaction of individual-/community-oriented and structural-/ environmental-oriented factors (Nutbeam, 2008; Nutbeam et al., 2018; Parker, 2009). Still, there has been a constant debate about different types, forms, dimensions and levels of health literacy and their practical relevance and embeddedness in everyday life (Nutbeam, 2017).

In the last decades, new dynamics and developments have further shaped both the academic and practice-oriented discussions of health literacy, far beyond the NCD perspective, also including the key role of health literacy in dealing with communicable diseases, *eHealth* and in navigating the health system. These debates reveal a potential need to integrate new aspects, components, and applications into the concept and understanding of health literacy. Especially five disruptive developments have posed long-lasting challenges for our health system as well as for people's health and well-being in recent years. These developments are part of a phenomenon called *polycrisis*, which can be defined as «a cluster of related global risks with compounding effects, such that the overall impact exceeds the sum of each part» (World Economic Forum, 2023, p. 57). A polycrisis comprehends present and future challenges that interact with one another. The following five challenges and chances related to the current polycrisis particularly question the currently applied concept and understanding of health literacy and show the urge of evolvement:

First, due to the rapid digitalization (lyamu et al., 2021) of all sectors including the health sector, organizational and behavioral processes have significantly changed. In addition, the amount of digital health data and information has continuously been growing. Besides the benefits of digital health data «[...] to improve the quality, safety and patient-centeredness of healthcare services, to support scientific innovation [...] and to redesign and evaluate new models of health service delivery» challenges occur regarding data protection standards, the applicability of information systems and efficient data usage (OECD, 2022, p. 9). People need to acquire specific knowledge, skills, and attitudes to face such challenges and to adequately deal with digital information, their differing quality, and digital data (e.g., being able to decide how and with whom to share personal health data) – in other words, they need adequate competences. At the same time, we can observe inadequate digital responsiveness from health and educational systems regarding for example the provision of digital services, the management of digital and smart interfaces or securing data safety and quality standards (gfs.bern, 2022; McKinsey Digital, 2021; Pahud & Dorn, 2023). The digital transformation, i.e., the process aiming at improving and changing organizations, social systems and the society (Iyamu et al., 2021; Vial, 2019), which derives from the digi $talization, has \ had \ an \ immense \ impact \ on \ practices, structures \ and \ processes \ in \ our \ health \ system. \ The results \ and \ processes \ in \ our \ health \ system.$ fore, adequate responses also from healthcare organizations, the health system, and decision-makers on a policy level are required. Furthermore, nowadays' digital era threatens to increase the digital divide, i.e., poses serious challenges to groups of people who are not familiar with new technologies (Cornejo Müller et al., 2020; van Dijk, 2012). In general, studies propose that different groups of a population might have difficulties in accessing digital health-related information and services, resulting in increased health and social inequalities (Azzopardi-Muscat and Sørensen, 2019).

Second, the COVID-19 pandemic has fundamentally challenged our perception of knowledge, attitudes, and skills (Kickbusch et al., 2021) – from an individual, a community's as well as professional and system's perspective. The pandemic has considerably revealed a major backlog demand regarding smart, digital, and interconnected processes and solutions. This includes the confrontation with the increasing relevance of health data, from an economic, a public health and a medical perspective, as well as the growth of digital or smart solutions in the field of health and according competences (Kickbusch et al., 2021). At the same time, our society is confronted with sociographic disruptions and unstable dynamics such as «infodemics» and «fake news» (WHO, 2020a). This overflow of both trustworthy but also misleading or false information (e.g., news, images, or videos) presents critical pitfalls for an informed decision-making process (WHO, 2020b). Moreover, such an overflow of information poses high demands on the population as well as on journalists and media professionals. While people – individuals and communities of any kind – are in greater need of adequate competences to deal with the *infodemic* appropriately, also health professionals require certain competences to understand and apply how to optimally deal with such challenges and developments.

Third, considering unstable developments such as the COVID-19 pandemic, violent conflicts and wars as well as ecological and economic crises, knowledge becomes increasingly fluid and needs to be critically reflected. Our societies are confronted with uncertainties combined with growing complex processes and practices as well as rapidly produced and outdated knowledge which call for different solution approaches (Abel & McQueen, 2021). Particularly the rapidly changing scientific knowledge and the increasing mistrust in scientific authorities (Bromme et al., 2022) as well as technological achievements and democratic structures present a major request for health literacy and the critical reflection and appraisal of health-related information. At the same time, it becomes essential for our society to acknowledge that «large gaps remain in the current evidence base on the interface of digital technologies and health, [and thus] taking a precautionary, mission-oriented, and value-based approach to its governance is crucial» (Kickbusch et al., 2021, p. 1727).

Fourth, a vast amount of research urgently warns that the effects of climate change and the evident loss of biodiversity will have devastating consequences for our health and well-being (Cook et al., 2019; Tangcharoensathien et al., 2023; Whitmee et al., 2015). These consequences include a rapid increase in climate migration and the spread of yet unknown infectious diseases due to the long-term destruction of crucial ecosystem services (Kickbusch et al., 2021; Roe, 2019; Schmeller et al., 2020; Turney et al., 2020). Regarding the multiple interrelated determinants of humans', animals' and environmental ecosystems' health and well-being, it will become even more vital to appropriately deal with health-related information to make sound decisions not only for everyday life (Diviani, 2019; Kickbusch, 2016) but also for the environment. To cope with such complex interrelations of humans', animals' and our planet's health, the WHO advocates a so called "One Health" approach, which "recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent" (WHO, 2021d). Informed decisions on health and well-being respecting the One Health approach represent an even greater challenge for everyone, i.e., individuals, communities, professionals, organizations, and (health) systems.

A fifth challenge concerns the major issues currently faced by the (Swiss) health system. The shortage of health professionals and the tremendous and continuously increasing costs of the health system increase the pressure on all actors within the system. In addition, the complexity of the system has been driven by the various interrelations and interdependencies between social, ecological, economic, commercial and cultural determinants of health (WHO, 2021a). As a consequence, the understanding of health and well-being has significantly expanded over time and new foci such as mental health (Kutcher et al., 2016; Prince et al., 2007), gender health (Hallam et al., 2016), mobile health (Steinhubl et al., 2015) or digital health (WHO, 2021b) are slowly gaining long-awaited and important awareness. Next to new foci, the development of the health system reveals the need for an aligned and integrated coordination of processes and an effective cultural shift towards a smarter system (Amelung et al., 2021). In order to reach this shift, not only professionals, but also patients and their families as well as the general population need the necessary skills to think and act collaboratively and have to be empowered to do so (Steering Committee of NRP 74, 2023). In other words, they need to be sufficiently health literate to be able to make sound decisions for their own and other's health and well-being.

1.4 Mastering the challenges with health literacy

Health-oriented knowledge, skills and attitudes which are (re-)produced, transformed, exchanged, and applied in social interactions and across time and space are central to providing a healthy and well-being society. Health literacy thus supports behavioral change and the creation of options for health and well-being in a way to make these options desirable, accessible, affordable and sustainable (WHO, 2022a). Health literacy plays a crucial role in empowering people to actively participate in managing their health and well-being (Kickbusch et al., 2013). People's *empowerment* is understood as «processes through which individuals and social groups are enabled to express their needs, present their concerns, devise strategies for involvement in decision-making, and achieve political, social and cultural action to meet those needs including co-creating the policies and services that affect and serve their communities» (WHO, 2021c, p. 14). Such empowerment can contribute to master the above-described challenges, because it allows people to get involved and be able to have an influence on their own health and well-being. Thus, health literacy can empower people in an era of polycrisis by:

- enabling them to adequately deal with digital information and services and to successfully adapt and apply new health technologies (Joseph et al., 2023),
- enhancing their critical thinking to identify health-related misinformation and find trustworthy resources (Abel & McQueen, 2021; Joseph et al., 2023), facilitating the recognition «of complex health ramifications of changing climate» (Limaye et al., 2020) and improving people's access, understanding, critical reflection and effective usage of health-related information (Lazakidou & Siassiakos, 2008) and services in general (WHO, 2022b). This allows people to better distinguish facts from fiction, expose political agendas or interests and rebuild trust in both science and society,
- enabling people to better cope with risky situations for their own and other's health or dealing with a disease. This in turn prevents secondary diseases and multimorbidity and increases quality of life.

1.5 Towards a shared understanding of health literacy

All these dynamics and the great potential to empower people to act and positively influence their own and other's health and well-being call for a more diverse, context-specific, yet holistic understanding of health literacy. The present concept paper on health literacy takes a first step in this direction and aims at establishing a common ground for health literacy in Switzerland. It further considers the above-mentioned social, technical, and environmental developments and therein the growing complexity and challenges of our society's life and the health system, which highly influence people's health and well-being.

For the development of the present concept paper, the Careum Center for Health Literacy conducted a literature review and six interviews with experts (researchers, policymakers, and practitioners) from different linguistic regions in Switzerland. In addition, an advisory board of Swiss health literacy experts was established to guide and support the process with their expertise and know-how. The first meeting of the advisory board included an initial reflection on common understandings and concepts of health literacy. The second advisory board meeting with the inclusion of the interview partners (extended advisory board) comprised a discussion on current and future challenges in healthcare, health promotion and disease prevention, and how health literacy can contribute to the empowerment of people. Subsequently, a draft version of the concept paper was sent to the extended advisory board members for written feedback and comments. Based on the written feedback and comments, the draft was revised and then presented to and discussed with members of the Swiss Health Literacy Alliance and the Association of Cantonal Health Promotion Officers. Building on all the constructive feedback and discussion rounds, the Careum Center for Health Literacy finally developed the present concept paper.

2 Clarification of terms

An initial step to conceptualize health literacy was to reflect and define the words which the term whealth literacy» itself consists of and the concept paper is based on. The main terms in this respect are whealth and wliteracy» or wcompetences, respectively. Any further specialized terms are explained in the attached Glossary.

2.1 Health

The understanding of health in this concept paper builds on the three main WHO-oriented perspectives on health – a determinants-oriented, a well-being-oriented, and a holistic and relational understanding (WHO, 2021a, 2021d):

- A determinants-oriented understanding of health defines health as «a resource for everyday life, not the
 objective of living. It is a positive concept emphasizing social and personal resources as well as physical
 capabilities» (WHO, 1986, p. 1). This perspective particularly emphasizes the fundamental prerequisites
 for health, including educational, commercial, environmental, societal, and economic determinants.
- A well-being-oriented understanding of health strives for a positive vision of health that integrates physical, mental, spiritual, and social well-being and promotes empowerment, inclusivity, equity (American Medical Association, 2021; WHO, 2023b), and meaningful participation. In this sense, well-being societies "provide the foundations for all members of current and future generations to thrive on a healthy planet, no matter where they live" (WHO, 2021a, p. 2).
- A holistic and relational understanding of health refers to health as «an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems» (WHO, 2021d). This holistic understanding of health builds on the WHO's One Health approach and thereby considers multiple sectors, disciplines, and communities at different levels of society to collaborate and enhance well-being (WHO, 2021d).

2.2 Literacy and competences

Literacy as a vital aspect of people's daily life is both content and context specific and enables people to make sense of the world to make informed and sound decisions (Nutbeam, 2009). This understanding of literacy is in line with several definitions of competences. Competences can be understood as individual capacities for action that are necessary to cope with future economic, political and cultural challenges (Erpenbeck, 2010). Competences are a person's ability to act in a self-organized, creative way in challenging or new situations (Erpenbeck, 2010). Regarding competent behavior, this ability also requires specific attitudes, skills, and knowledge (Wirtz & Soellner, 2022). Competences in this sense are directly linked to application and refer to concrete areas of action. Moreover, they are dynamic and can be developed and strengthened individually or collectively over time (Wirtz & Soellner, 2022). Depending on the social context and corresponding framework conditions, specific competences are unevenly distributed and not always accessible – leading to a reproduction of inequities in areas such as health(care) or education (Richter, 2019).

3 The concept journey of health literacy

The concept of health literacy has continuously evolved since its first mentioning (Nutbeam, 2008; Rudd, 2015). Currently, over 250 definitions of health literacy exist, including various health literacy approaches, forms, domains, or dimensions (Malloy-Weir et al., 2016). Many of these definitions partly overlap in terms of content and perspectives (Vogt & Gehrig, 2020), but there is only a limited consensus on certain core principles of health literacy in the professional debate (Sørensen & Pleasant, 2017).

3.1 Foundational work on health literacy

In the beginning, debates on health literacy were mainly based on the difficulties patients were confronted with in the health system and thus in the domain of healthcare. Furthermore, early studies on health literacy identified health literacy as an essential prerequisite for individuals to adequately be informed and to deal with NCDs and corresponding risk factors (WHO, 2022a). In this sense, health literacy is linked to the concept of self-management as an individual's ability to cope with daily challenges amid long-term illnesses. In the domain of disease prevention, health literacy is of particular importance for individuals with increased health risks or multimorbidity as well as their relatives, as they constantly need to deal with health-related information, services and health-related challenges throughout the growing complexities in the health and social system (Kessler & Lasserre Moutet, 2022). In doing so, these individuals with increased risk or multi-morbidity and their relatives develop specific self-management skills as part of their health literacy. Thus, self-management and its promotion can be regarded as vital aspects of health literacy (Kessler & Lasserre Moutet, 2022). As empirical research on health literacy grew and especially in the context of the inclusion in the Ottawa Charter (WHO, 1986) and Europe's increasing interest in this issue, the concept of health literacy evolved by addressing not only healthcare and disease prevention but also the domain of health promotion. Thus, health literacy was related with the process of enabling people to take healthy decisions for their life. From this understanding health literacy «refers to the ability to regularly update oneself on determinants of health in the social and physical environment and derive meaning, to interpret and evaluate information on determinants of health in the social and physical environment, and the ability to make informed decisions on health determinants in the social and physical environment and also engage in joint action» (Sørensen et al., 2013, p. 3). In this sense, health literacy represents a central intersection of the three domains healthcare, disease prevention and health promotion. However, recent studies locate health literacy not only on this intersection but emphasize the overlap with other sectors and fields, such as education, social services, technology and communication (WHO, 2021d).

Previous research on health literacy was predominantly oriented towards western societies and represented a rather individualistic perspective on health-related decisions and lifestyle. This perspective led to multiple approaches and interventions focusing on behavior change of individuals rather than on practices of people, including collectives such as groups, professionals, organizations, or communities (WHO, 2022a). However, current health literacy experts strongly emphasize that health choices, practices and behaviors are inherently relational and occur within people's family, neighborhood, circle of friends, workplace, social community, or in interaction with health organizations and professionals. Thus, health literacy is strongly embedded in socio-cultural contexts, traditions and beliefs and thereby shaped by social and environmental aspects beyond the realm of individuals (WHO, 2022a). Processes, practices and structures created and facilitated by various actors within the health system can support people in dealing with health-related information and services, e.g., through health literate health organizations which make it easier for people to find, understand, appraise and use such information and services (Farmanova et al., 2018). However, at the same time and despite their positive intention, these actions and structures can contribute to creating health inequalities, if for example vulnerable groups experiencing difficulties in dealing with health information and services (e.g., those with a lower education level, language difficulties, illiteracy, lack of digital literacy, chronic illness or elderly) are not reached and addressed appropriately (Rudd, 2015). Therefore, Kickbusch et al. (2005) provided a rather holistic health literacy perspective and defined health literacy as «[...] the ability to make sound health decisions in the context of every day life - at home, in the community, at the workplace, in the health system, the market place and the political arena. It is a critical empowerment strategy to increase people's control over their health, their ability to seek out information and their ability to take responsibility» (p. 8). Based on this more holistic understanding, the more recent and quite popular definition in the European region was proposed by Sørensen et al. (2012). This definition considers health literacy as being interrelated with literacy and «[...] entails people's knowledge, motivation, and competences to access, understand, appraise, and apply

health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course» (Sørensen et al., 2012, p. 3). Furthermore, besides basic reading, writing and numerical skills, health literacy includes «information-seeking, decision-making, problem-solving, critical thinking, and communication, along with a multitude of social, personal, and cognitive skills that are imperative to function in the health-system» (Sørensen et al., 2012, p. 11). These competences are developed in daily practices and interactions across various contexts and social systems. Next to personal determinants, also societal, and environmental determinants, such as social support, media use and the physical environment, are considered key factors impacting health literacy (Sørensen et al., 2012).

Nowadays, commercial actors and policies can be considered powerful determinants of health literacy, too: Through their wealth and power, commercial actors can positively contribute to health by providing the necessary products and services, while at the same time, they can cause harm, planetary damage and inequities through their actions (Kickbusch et al., 2016; The Lancet, 2023). Not only is health literacy strongly shaped and influenced by these determinants, but theoretical and empirical insights confirm that health literacy itself presents a key determinant of health (Kickbusch et al., 2013). The strong interrelations of health literacy with determinants of health are also reflected in the definition of health literacy in the revision of the WHO Health Promotion Glossary (Nutbeam & Muscat, 2021) stating that «[H]ealth literacy represents the personal knowledge and competencies which accumulate through daily activities, social interactions and across generations. Personal knowledge and competencies are mediated by the organizational structures and availability of resources which enable people to access, understand, appraise, and use information and services in ways which promote and maintain good health and wellbeing for themselves and those around them» (Nutbeam & Muscat, 2021, p. 1582).

With regard to health literacy being dependent on the contexts and circumstances of everyday life, three aspects or levels can be distinguished (Nutbeam, 2009; Nutbeam et al., 2018). These levels reflect different skills and abilities that build on each other and allow people to make health literate decisions:

- «Functional» health literacy comprises *basic skills* in reading, writing and essential communication skills to manage daily activities and includes basic health knowledge;
- «Interactive» health literacy includes more advanced cognitive, social, and communicative practices and skills to proactively participate in everyday interactions, to make sense of different forms of communication, and to apply new information amid changing situations;
- "Critical" health literacy covers the knowledge, attitudes, and skills to reflect upon, critically analyze and apply information and to use this information to cope with health-related challenges in life (Nutbeam, 2000). In a more up-to-date understanding, critical health literacy is not merely a health literacy aspect or level, but represents the fundamental skills of people to reflect upon health determining factors and to apply those reflective processes into actions for health (Abel & Benker, 2022).

Because of the dynamic social developments in the past years, also different forms of health literacy have been discussed and gained particular importance, such as digital health literacy and navigation health literacy (Diane Levin-Zamir et al., 2021; Griese et al., 2020). Digital technologies have become a dominant medium for health-related information and health communication, improving and facilitating health and well-being, and providing access to healthcare services for people (Park & Kwon, 2021). Rooted in the concept of health literacy, digital health literacy applies to all contexts of health and healthcare, such as health information seeking behavior, navigation of health systems, and healthcare access (Norman & Skinner, 2006). Initially, digital health literacy referred to the ability to find, assess, and apply digital health information only. The increasing digitalization and technological advances, however, made the consideration of additional literacies necessary, such as competences regarding health data sharing, data protection and digital communication, even basic understanding of artificial intelligence (Bautista, 2015; Griebel et al., 2018; Norman & Skinner, 2006). Thus, today digital health literacy can be described as a «dynamic and context specific set of individual and social factors, and technological constraints in the use of digital technologies to search, acquire, comprehend, appraise, communicate, apply and create health information» (Griebel et al., 2018, p. 17). In the modern digital era, facing the spread of health information online and on social media, the attention on necessary competences to appropriately deal with digital health information has been growing. In addition, the digital transformation has also led to

increasingly complex health systems. Thus, an adequate navigation health literacy is a prerequisite for being able to navigate system-related structures, processes, and activities. Navigation health literacy is accordingly defined as "people's knowledge, motivation and skills to access, understand, appraise and apply the information and communication in various forms necessary for navigating health care systems and services adequately to get the most suitable health care for oneself or related persons" (Griese et al., 2020, p. 6).

As already indicated, health literacy is inherently relational: It is based on the interplay of people's personal attitudes, knowledge, and skills and the contextual requirements and complexities of the social systems in which people live and operate (Parker, 2009; Parker & Ratzan, 2010; Vogt & Gehrig, 2020). Considering this relational understanding, in recent years, attention towards how professional and organizational actors can address and promote health literacy to support people in their health-related decisions has increased. In this context, the concepts of professional and organizational health literacy evolved. Professional health literacy thereby includes the ability of health professionals to professionally manage information and knowledge, to communicate, explain and convey health-related knowledge and information in an adequate didactically manner (HLS-PROF Konsortium, 2023). Furthermore, it comprises health professionals' ability to successfully deal with the challenges regarding the support of patients and their relatives with low levels of health literacy (HLS-PROF Konsortium, 2023). According to the concept of self-management support (Kessler & Lasserre Moutet, 2022), it is central that professionals adopt a partnership approach, invite stakeholders to participate, and take into account the individual needs, experiences, resources, and context of those affected. Next to professional health literacy, organizational health literacy can be defined as «[...] an organization-wide effort to transform organizations and delivery of care and services to make it easier for people to navigate, understand, and use information and services to take care of their health» (Farmanova et al., 2018, p. 1). Thus, health professionals as well as health literate organizations can strongly contribute to adequately addressing and strengthening health literacy of people and the society by creating necessary framework conditions.

3.2 Moving forward – health literacy in times of polycrisis

Our understanding of health literacy in this concept paper is based on seven interrelated principles. These principles, as they are called here, are axioms or statements relating to health literacy that are based on literature and were jointly recommended by our extended advisory board to serve as a premise and common ground to evolve the concept. They represent the main commonalities of the various perspectives on health literacy in the scientific, practice, and political community. These principles are considered to being equally important for a profound understanding of the theoretical conceptualization and the empirical operationalization of health literacy. They are interrelated and not always clearly distinguishable from each other.

Integrating people

The above-mentioned challenges through social, technical, and environmental developments (chapter 1.3) require a shift from a health system focusing on dealing with illnesses to a more holistic, integrated and people-oriented health system. This approach considers and respects individuals and communities with their multidimensional needs. A health system that integrates and addresses people and their needs enables and empowers individuals, families and communities to collaborate with health professionals and organizations (World Health Organization, 2007) and to take action for their health and well-being. Such health systems can be called health literacy responsive, i.e., they address and strengthen the health literacy of people. Thereby they facilitate the collaboration between people and the system and support people to become equal partners in the coproduction of health and well-being (OECD, 2018).

Integrating the context

Health and well-being are a resource for everyday life, which allows people to identify and satisfy their needs, as well as to change or cope with the living environment (WHO, 1986). Similarly, health literacy is contextually situated, and takes place in everyday life. Therefore, the social, environmental, and economic context proposes a fundamental determinant for the promotion, application, or acquisition of health literacy (Osborne et al., 2022). Moreover, these contextual factors need to be integrated into health literacy development initiatives and actions. One promising approach in this regard is the «Integrated Conceptual Framework for Health Literacy Development». This framework provides five action areas in

which health literacy development can prosper (Osborne et al., 2022; World Health Organization, 2022a). Due to the ongoing societal developments (chapter 1.3), new contexts where health literacy can be promoted, applied, and acquired need to be evaluated and considered repeatedly. For example, innovative technologies and social media offer promising and challenging contexts, where particularly interactive and critical health literacy play a central role (Bittlingmayer et al., 2020; Külling et al., 2022). Thus, health literacy must always be considered in respect to the context. On the other hand, health literacy promoting actors always need to understand, respect, and address the context of the individuals and communities to strengthen their health literacy appropriately and in a target-oriented way.

Inherent relationality

Health literacy depends on attitudes, knowledge, skills, and, at the same time, on the complexity of health-related information and services (Parker, 2009). In addition, health literacy includes the interactions of patients, health professionals, peers, and, in general, all people that accompany and support others in the acquisition and application of health literacy. These interactions are embedded into contextual, environmental, and situational framework conditions. In line with the self-management promotion principle of mutual appreciation between health professionals and patients and their relatives (Kessler & Lasserre Moutet, 2022), health-literate interactions are considered to be in partnership and part of a joint learning process. Therefore, the acquisition and the application of corresponding competences are deeply relational and strongly depend on the respective context (see above). The acquisition of health literacy takes primarily place in social and educational settings, e.g., in families, local communities, schools or the working environment (Kickbusch et al., 2013; WHO, 2021c; World Health Organization, 2022b). Similarly, the application of health literacy takes places in relational contexts as well, e.g., when healthcare users visit their physicians, when individuals want to adapt their lifestyle based on the information of their smart watch, or just assessing the trustworthiness of a health-related information heard on the radio. Consequently, health literacy responsive processes, practices, structures, and policies need to address this inherent relationality of health literacy. This means that the target of health literacy promoting actions is not only the development and enhancement of people's health literacy but is likewise the adaptation of the environment and contexts. By respecting the relationality of health literacy, an according concept «[...] shifts attention to the capacity of professionals and health institutions to support access to information and the active engagement of people» (Rudd, 2015, p. 8). However, this calls for appropriate tools and instruments to enable and empower people, professionals, and organizations to interact with each other in order to successfully address, acquire, apply, or strengthen health literacy.

Addressing health equity

The concept of health literacy is closely interrelated with health equity (Logan et al., 2015), as health literacy is a crucial mediator of socio-economic, commercial and environmental determinants of health and represents itself a health determinant. As an inherently relational concept, health literacy can contribute to all the five essential conditions of health equity – health services, income security and social protection, living conditions, social and human capital, and employment and working conditions (WHO, 2019). Thus, health literacy responsive and promoting processes, practices, structures and policies can support population wide health and well-being and can address social disparities to increase health equity and social justice at the same time (Bauer, 2019). To do so, target-group-tailored measures that consider the diverse social, physical, and environmental contexts of individuals are necessary (De Gani et al., 2021; Rüegg & Abel, 2019).

Central life and future skills

Life skills include social and psychological abilities that enable people to deal with the challenges and difficulties of everyday life and have accordingly been defined by the WHO as the «abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life» (WHO, 1994, p. 1). Considering the uncertain nature of our future and the increase of transformative ecosystems, more recent concepts have elaborated the term to so called "future skills". Future skills do not only enable people to react flexibly to any potential future development, but to proactively design and shape these futures (Samochowiec, 2020). Similarly, health literacy enhances the capacity to proactively deal with one's own and societal and environmental health and well-being. In this sense, health literacy can be regarded as a central life and future skill. As such, health literacy is both a medium for and an outcome of socialization and educational processes. Its development and application

are continuously evolving along people's life course (Bröder et al., 2017; Kirchhoff et al., 2022), and are supported by according processes, practices, structures and policies. Therefore, the strengthening of health literacy and the consideration of respective contexts should be a core part of the missions of educational and social institutions to empower people to proactively deal with health-related information and services to manage and shape their actual and future health and well-being.

Managing complexity and uncertainties

Modern societies are shaped by rapid environmental, societal, economic, and digital developments as well as dynamic disruptions and increasing complexity. This leads to a continuous confrontation with uncertainties, higher cognitive and social demands and needs for accurate coping strategies (Abel & McQueen, 2021; Kickbusch et al., 2021). Health literacy, which is characterized by interdependencies and interrelations with various social phenomena (Sørensen et al., 2012), plays a critical role in dealing with the demands and the complexity of the health system and of our societal life in general. Managing complexity also means being able to identify and understand how current crises (e.g., climate change, digitalization, pandemics) are interrelated (Dittrich, 2022), what impact they can have on our health and well-being and how they can be influenced by individual and communal behavior. Well-informed and empowered people can contribute to the most appropriate health promotion, prevention, or treatment decisions and are also more likely to implement them. At the same time, and in conjunction with the rapidly growing and changing health-related knowledge, the need and demand of individuals, communities and health professionals to make decisions based on insufficient knowledge and uncertainty are rising (Benatar & Brock, 2021; Lambert et al., 2020; World Economic Forum, 2023). To be able to address and to deal with these complexities and uncertainties, adequate critical health literacy, but also scientific literacy is required. Critical health literacy includes not only the knowledge and reflection on scientific facts, but rather builds on a profound understanding of science and research designs (OECD, 2018). As our world is constantly changing, competences in proactively dealing with uncertainties and complexities - relating to information and services on health and well-being - remain crucial (Abel & McQueen, 2021).

Multi-level and multi-dimensionality

Health literacy is inherently multi-level and multi-dimensional as it comprises different perspectives, domains, forms, and levels (Kickbusch et al., 2013; Nutbeam, 2009). As mentioned before, two main perspectives on health literacy are usually distinguished: A people-oriented perspective on the knowledge, skills, and attitudes of individuals and communities regarding health literacy and a system-oriented perspective on various actors and factors of enabling, strengthening, and promoting health literacy. The notion of health literacy domains comprises the fields of healthcare, disease prevention and health promotion and respective settings that both health literacy and health literacy promoting processes, practices and structures generally refer to (Sørensen et al., 2012). Health literacy thereby acts as a cross-cutting topic that affects all three domains equally.

Health literacy can also be further specified into different types, according to particular health issues, such as *mental health literacy*, digital health literacy, vaccination health literacy, nutrition health literacy, and many more. Despite the multiple foci, these different types of health literacy are based on the same foundation, concept and understanding of health literacy in general. In addition, health literacy may occur in different forms within the health system:

- individual health literacy: health literacy of individuals and communities empowers people to proactively deal with health-related information and services;
- professional health literacy: health literacy of health professionals addresses their ability to professionally manage information and knowledge, to communicate, explain and convey health-related knowledge and information in an adequate didactically manner (HLS-PROF Konsortium, 2023);
- organizational health literacy: health literacy of organizations means institutional efforts «to transform organizations and delivery of care and services to make it easier for people to navigate, understand, and use information and services to take care of their health» (Farmanova et al., 2018, p. 1).
- systemic health literacy: health literacy of systems targets societal involvement and improvement of health literacy as well as a systematic political, economic and social approach to enhance «health literacy capacity at all levels» (Sørensen et al., 2021).

4 Redefining health literacy

Based on the development process of the approach at hand to re-conceptualize and develop a common understanding of health literacy in Switzerland (i.e., conducting an in-depth literature review, engaging in expert dialogues, reflecting the concept with an extended advisory board) and the above-mentioned seven health literacy principles, the following two definitions have been jointly developed:

Health literacy

Health literacy is a *bundle of competences* to proactively deal with health-related information, services, and challenges and, thereby, empowers people to manage their and other's health and well-being.

Health literacy enablers

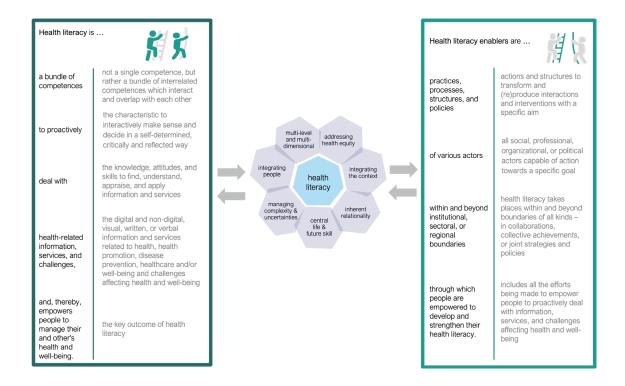
Health literacy enablers are practices, processes, structures, and policies of various actors within and beyond institutional, sectoral, or regional boundaries through which people are empowered to develop and strengthen their health literacy.

Instead of considering health literacy as a single and independent competence, it is regarded as a bundle of interrelated competences that may interact and partly overlap with one another. Such competences comprise the ability to act in a self-organized way in challenging (new) health-related situations. Thus, they enable people to proactively find, understand, appraise, and apply health-related information and services with the aim to empower them to make sound decisions and to face challenges and maintain or improve their and other's health and well-being.

As emphasized in one of the seven health literacy principles, health literacy is inherently relational and can be strengthened and enabled in different contexts and at different levels. This is considered in the definition of health literacy enablers, which are practices, processes, structures, and policies that strengthen health literacy of people, professionals, organizations, and systems. This implies an active responsiveness on the part of the enablers, i.e., health literacy requirements need to be recognized, considered, and accurately addressed. Under these conditions, they can create enabling environments that provide equitable access to and engagement with health-related information and services and support people in dealing with their and other's health and well-being. The notion of practices, processes, structures, and policies comprises all the regulations, actions and approaches aimed at transforming and producing interactions and interventions to build and strengthen health literacy. These interactions and interventions are performed by various actors, including organizations, professionals, politicians, and decision-makers as well as citizens.

Figure 1 elaborates on the different components of health literacy and health literacy enablers in more detail. It aims to visualize that health literacy empowers people, while health literacy enablers are rather symbolized by the tools, circumstances, and instruments in order to facilitate the development and strengthening of health literacy.

Figure 1: Concept of health literacy including health literacy enablers and the seven underlying principles.



5 Operationalization of health literacy in research, policy, and practice

The acquisition and application of health literacy takes place at the research, practice, and policy level. In addition, also health literacy enablers are enacted in these three fields. These three fields or action areas, respectively, as well as the entire concept paper are generally in line with the new WHO report on health literacy development for the prevention and control of NCD which presents a clear and comprehensible integrated framework for health literacy development including five action areas (WHO, 2022a). The present concept paper, however, goes beyond the prevention and control of NCD, considers a rather holistic understanding of health and well-being and addresses further challenges related to the current polycrisis. The following sections elaborate on these three levels in more detail.

5.1 Health literacy in research

«The aspect of how to best strengthen people's health literacy through other actors such as health professionals has received too little research attention so far» (health literacy expert in Switzerland)

Health literacy research in Switzerland is still in its infancy and only few studies have been conducted so far. However, like the concept of health literacy itself, the research field is rapidly evolving (Nutbeam, 2008; Vogt & Gehrig, 2020). As the research community on health literacy grows, a common and valid understanding of health literacy early on is necessary to develop and apply measurement instruments and target-oriented measures, which can effectively assess, compare, and strengthen health literacy of people and organizations and systems. This approach has proven to be successful, as the example of the European Health Literacy Questionnaire (HLS-EU-Q) shows (Pelikan & Ganahl, 2017). Based on the definition and concept of health literacy by Sørensen et al., 2012, an instrument to measure population health literacy was developed and applied within the framework of an international study conducted by the WHO Action Network on Measuring Population and Organizational Health Literacy (M-POHL). Building on this instrument and on other research insights, several measurement instruments have been developed in the past years. Meanwhile, the vast amount of research on health literacy measures has led to the launch of an online database of health literacy measures by the Boston University (i.e., the Health Literacy Tool Shed²). Most of the health literacy measurement tools are based on self-reporting, whilst others aim at a more objective measurement approach (Schulz et al., 2021). However, all of them, including the HLS-EU-Q, merely measure specific aspects or subareas of health literacy and focus on individuals dealing with health-related information. Thus, these instruments are not covering our concept and understanding of health literacy. In addition, whilst the existing studies and instruments aim at measuring health literacy at the individual level, only few research has focused on the organizational level so far (Farmanova et al., 2018). Moreover, instruments and studies that assess health literacy at a community and system level are even missing to date. Furthermore, there is a gap in research and a lack of instruments that measure individual health literacy considering its contextuality appropriately. These limitations and gaps in research reveal the need for further studies and instruments with a more holistic, relational, and integrated perspective on health literacy. Apart from that, the choice of the appropriate study design and measurement instrument should always be based on the study's aims and objectives (Tavousi et al., 2022), and in order to define them, a clear understanding of the underlying concept is crucial. Thus, the concept on health literacy at hand aims at forming a basis for a common understanding of health literacy, its enablers, and the corresponding key principles, where future research should be based on.

5.2 Health literacy in practice

«In practice, health literacy goes beyond the concept of dealing with health information» (consensus of the involved health literacy experts in Switzerland).

At a practice level, health literacy comprises a bundle of competences to proactively deal with both health-related information as well as services with the aim of empowering people to manage their and other's health and well-being. This is also reflected in the exemplary statement and consensus above. To acquire, address, apply, enable and promote health literacy in practice, relevant stakeholders of diverse

² https://healthliteracy.bu.edu/

social contexts need to be engaged. The enabling and promotion of health literacy as an essential life and future skill takes place through the whole life course and in all three health domains of healthcare, disease prevention and health promotion. Furthermore, health literacy as autonomy-strengthening asset appears in multiple settings, such as schools or other educational institutions, free-time activities, workplaces, in the interactions with (health) professionals and many more. Since the promotion of life skills is already a declared goal of the Swiss education system, schools and educational institutions provide a crucial environment to strengthen health literacy. Therefore, health literacy should be included within the curricula of various educational institutions in lower and higher education, vocational training, or professional development. To be able to effectively enable health literacy, teachers, school staff, school principals, school nurses or parent advisory boards should be provided with the necessary knowledge, competences, materials, and tools. In addition to school and education settings, the acquisition, application, and promotion of health literacy take place in interaction with health professionals, as well as with public health professionals. Therefore, health literacy should be integrated in the training, education, and ongoing professional development in all relevant fields of study. Generally, to foster and support health literacy enablers in practice, all relevant stakeholders should participate in every necessary step on this journey. A prerequisite also therefore is a common understanding of the concept of health literacy and its relevance, where this concept paper forms a basis.

5.3 Health literacy in policy

«The responsibility for health literacy lies not on the shoulders of patients. I always tell health professionals: Health literacy is your responsibility first! – But it is not solely the responsibility of health professionals either, it is fore and foremost the responsibility of the institutions and the system to promote health literacy»

(health literacy expert in Switzerland).

Policies regarding and including health literacy occur at various levels, e.g., the individual, community, organizational, or system level. Health literacy and its enabling and promotion among the population represent a vital objective in the Swiss Federal Council's health policy strategy 2020-2030 «Health2030». Referring to these objective and previous findings, health literacy is of great relevance for future health and well-being initiatives: First of all, people with adequate health literacy tend to be healthier and are less overburdening healthcare services (De Gani et al., 2021). Furthermore, health literate people are able to take informed health-related decisions and to pro-actively participate in decision-making processes with health professionals (Kickbusch et al., 2013). As a result, health literacy has the potential to empower people and to strengthen their self-determination regarding their and other's health and well-being. However, next to public health policies, also policies in other sectors or areas can significantly contribute to the development of health literacy. Such policies can provide health literacy friendly and responsive societies and environments, e.g., by supporting health literacy enablers within the school system and by integrating health literacy in the curricula of health and public health professionals. Whether embedded in the health context or in any other sector and setting, policies should not only apply to individuals, but even more to their community and social environment. Contextual factors, such as socio-economic, ecological, and commercial determinants must also be considered. Thus, to successfully address health literacy of people, a holistic and integrated policy approach is needed, as well as a collaboration involving different actors, settings and sectors with the aim to create a supportive environment for health literacy (Global Self-Care Federation, 2022). Furthermore, in a federalist system and a diverse society as we find it in Switzerland, it is important to fully understand, translate and incorporate the different cultural contexts and social dynamics, languages, migration backgrounds, social environments and living conditions, to successfully implement health literacy in practice. For example, besides translating materials and documents into the national languages, context validation involving the target groups and translation into plain language are necessary. From a health policy perspective, health literacy can help to improve healthcare quality, to relieve the burden on the health system (regarding the shortage of skilled health professionals), and to curb the steadily increasing healthcare costs. For this purpose, not only is a common understanding of the concept necessary, as provided with this concept paper, but also specific research addressing these fields is essential in the future. Thus, it becomes apparent that policy strategies in the health sector and beyond are a promising tool to promote health literacy in the long term (Kickbusch et al., 2013).

6 Conclusion

The concept of health literacy has been continuously evolving and several definitions and conceptualizations have emerged during the past years. A common, shared, and valid understanding of the concept is crucial for its successful application in research, policy, and practice. Health literacy comprises a bundle of competences, and thus the knowledge, skills, and attitudes to proactively deal with health-related information, services, and challenges with the final aim to empower people in managing their and other's health and well-being. These interrelated and to some extent overlapping competences accumulate through everyday activities and social interactions and are situated in diverse social settings, including schools, neighborhoods, but also digital platforms and social media. In this sense, health literacy is a key resource for facing health-related challenges, e.g., the infodemic and the general difficulties posed by the high complexity of the health system and the increasing knowledge and societal uncertainties. This perspective of health literacy is inherently relational. This means that personal knowledge, skills, and attitudes are mediated by organizational, institutional, and system-oriented structures, processes, and resources. Hence, a key role in strengthening health literacy is attributed to health literacy enablers defined as the practices, processes, structures, and policies of various actors beyond institutional, sectoral, or regional boundaries to strengthen health literacy of people. Besides the relational perspective, the presented concept of health literacy is based on seven key principles, i.e., integrating people, integrating the context, addressing health equity, inherent relationality, central life and future skill, managing complexity and uncertainties, and multi-level and multi-dimensionality.

The present concept paper represents a first fundamental step to establish a common ground for health literacy in Switzerland. Its development involved experts from the three main linguistic regions with different professional backgrounds, and considered the current social challenges, complexities, and uncertainties. As a result, the present concept paper provides an important foundation to improve both the acquisition and the application of health literacy in research, policy, and practice.

References

- 1 **Abel, T., & Benker, R. (2022).** Critical health literacy: reflection and action for health. *Health Promotion International, 37*, 1–8. https://doi.org/10.1093/heapro/daac114
- 2 **Abel, T., & McQueen, D. (2021).** Critical health literacy in pandemics: the special case of COVID-19. *Health Promotion International, 36*(5), 1473–1481.
- 3 Amelung, V., Stein, V., Suter, E., Goodwin, N., Nolte, E., & Balicer, R. (2021). *Handbook Integrated Care*. Springer International Publishing. https://doi.org/10.1007/978-3-030-69262-9
- 4 American Medical Association. (2021). Advancing health equity: A guide to language, narrative and concepts. Retrieved 2/3/22 from: https://www.ama-assn.org/about/ama-center-health-equity/advancing-health-equity-guide-language-narrative-and-concepts-0
- 5 **Bauer, U. (2019).** The social embeddedness of health literacy. *International Handbook of Health Literacy*, 573.
- 6 **Bautista, J. R. (2015).** From Solving a Health Problem to Achieving Quality of Life: Redefining eHealth Literacy. *Journal of Literacy and Technology, 16*(2), 33–54.
- 7 Bieri, U., Kocher, J. P., Gauch, C., Tschöppe, S., Venetz, A., Hagemann, M., Schwab, J., Schüpbach, S., & Frind, A. (2016). Bevölkerungsbefragung "Erhebung Gesundheitskompetenz 2015": Schlussbericht. Studie im Auftrag des Bundesamt für Gesundheit BAG, Abteilung Gesundheitsstrategien. https://www.bag.admin.ch/dam/bag/de/dokumente/nat-gesundheitspolitik/gesundheitskompetenz/erhebung-gesundheitskompetenz-schweiz.pdf
- 8 Bittlingmayer, U. H., Dadaczynski, K., Sahrai, D., Van Den Broucke, S., & Okan, O. (2020). Digitale Gesundheitskompetenz Konzeptionelle Verortung, Erfassung und Förderung mit Fokus auf Kinder und Jugendliche. Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz, 63(2), 176–184. https://doi.org/10.1007/s00103-019-03087-6
- 9 Bröder, J., Okan, O., Bauer, U., Bruland, D., Schlupp, S., Bollweg, T. M., Saboga-Nunes, L., Bond, E., Sørensen, K., Bitzer, E.-M., Jordan, S., Domanska, O., Firnges, C., Carvalho, G. S., Bittlingmayer, U. H., Levin-Zamir, D., Pelikan, J., Sahrai, D., Lenz, A., . . . Pinheiro, P. (2017). Health literacy in childhood and youth: A systematic review of definitions and models. *BMC Public Health*, *17*(1), 361. https://doi.org/10.1186/s12889-017-4267-y
- 10 **Bromme, R., Mede, N. G., Thomm, E., Kremer, B., & Ziegler, R. (2022).** An anchor in troubled times: Trust in science before and within the COVID-19 pandemic. *PloS One, 17*(2), e0262823.
- 11 **Cook, P. A., Howarth, M., & Wheater, C. P. (2019).** Biodiversity and health in the face of climate change: implications for public health. *Biodiversity and Health in the Face of Climate Change*, 251–281.
- 12 Cornejo Müller, A., Wachtler, B., & Lampert, T. (2020). Digital Divide Soziale Unterschiede in der Nutzung digitaler Gesundheitsangebote. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*, 63(2), 185–191. https://doi.org/10.1007/s00103-019-03081-y
- 13 **De Gani, S. M., Jaks, R., Bieri, U., & Kocher, J. P. (2021).** *Health Literacy Survey Schweiz 2019-2021.* Schlussbericht im Auftrag des Bundesamt für Gesundheit. Zürich. Careum Stiftung.
- 14 Diane Levin-Zamir, Stephan Van den Broucke, Jürgen Pelikan, Éva Birô, Henrik Bøggild, Lucy Bruton, Saskia Maria De Gani, Sarah Gibney, Robert Giebler, Lennert Griese, Zuzana Klochánová, Zdenek Kucera, Thomas Link, Julien Mancini, Dominika Miksová, Kjell Sverre Pettersen, Christopher Le, Hanne Søberg Finbråten, Øystein Guttersrud, . . . The HLS19 Consortium of the WHO Action Network M-POHL (2021). Digital Health Literacy. International Report on the Methodology, Results, and Recommendations of the European Health Literacy Population Survey 2019-2021 (HLS19) of M-POHL, 275–311. https://vbn.aau.dk/en/publications/digital-health-literacy

- **Dittrich, K. (2022).** Scale in research on grand challenges. In *Organizing for societal grand challenges*. Emerald Publishing Limited.
- **Diviani, N. (2019)**. On the Centrality of Information Appraisal in Health Literacy Research. *Health Literacy Research and Practice, 3*(1), e21-e24. https://doi.org/10.3928/24748307-20181214-01
- **Erpenbeck, J. (2010).** Kompetenzen-eine begriffliche Klärung. *Grundstrukturen Menschlicher Kompetenzen. Praxiserprobte Konzepte Und Instrumente*, 13–19.
- 18 Farmanova, E., Bonneville, L., & Bouchard, L. (2018). Organizational Health Literacy: Review of Theories, Frameworks, Guides, and Implementation Issues. *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, 55, 46958018757848. https://doi.org/10.1177/0046958018757848
- **Federal Office of Public Health. (2016).** Nationale Strategie Prävention nichtübertragbarer Krankheiten (NCD-Strategie): 2017-2024.
- **FOPH Federal Office of Public Health. (2019).** Health 2030 the Federal Council's health policy strategy for the period 2020–2030. Bern.
- **FOPH Federal Office of Public Health. (2022)**. *National Strategy for the Prevention of Non-communicable Diseases (NCD strategy)*. https://www.bag.admin.ch/bag/en/home/strategie-und-politik/nationale-gesundheitsstrategien/strategie-nicht-uebertragbare-krankheiten.html
- **gfs.bern. (2022).** Verbesserung in der Gesundheitsvernetzung in Reichweite: Swiss eHealth Barometer 2022 Bericht zur Befragung der Gesundheitsfachpersonen und Akteure des Gesundheitswesens.
- 23 Global Self-Care Federation. (2022). Self-Care Literacy.
- **Griebel, L., Enwald, H., Gilstad, H., Pohl, A.-L., Moreland, J., & Sedlmayr, M. (2018).** eHealth literacy research—Quo vadis? *Informatics for Health and Social Care, 43*(4), 427–442.
- **Griese, L., Berens, E.-M., Nowak, P., Pelikan, J. M., & Schaeffer, D. (2020).** Challenges in Navigating the Health Care System: Development of an Instrument Measuring Navigation Health Literacy. *International Journal of Environmental Research and Public Health, 17*(16). https://doi.org/10.3390/ijerph17165731
- 26 Hallam, J., Boswell, R. G., DeVito, E. E., & Kober, H. (2016). Focus: sex and gender health: gender-related differences in food craving and obesity. *The Yale Journal of Biology and Medicine*, 89(2), 161.
- **HLS-PROF Konsortium. (2023).** Professionelle Gesundheitskompetenz ausgewählter Gesundheitsprofessionen/-berufe.: Ergebnisse einer Pilotstudie in der Schweiz, Deutschland und Österreich (HLS-PROF). Zürich Berlin/Bielefeld Wien. Careum, Hertie School/ Universität Bielefeld/Stiftung Gesundheitswissen und Gesundheit Österreich.
- **Iyamu, I., Xu, A. X. T., Gómez-Ramírez, O., Ablona, A., Chang, H.-J., Mckee, G., & Gilbert, M. (2021).** Defining digital public health and the role of digitization, digitalization, and digital transformation: scoping review. *JMIR Public Health and Surveillance, 7*(11), e30399.
- **Joseph, L., Rahman, A [Alphonsa], & Varghese, R. (2023).** Medical Misinformation and Healthy Information Environment: A Call to Action. *The Journal for Nurse Practitioners, 19*(4), 104502.
- **Kessler, C., & Lasserre Moutet, A. (2022).** Konzept Selbstmanagement-Förderung: bei nichtübertragbaren Krankheiten, Sucht und psychischen Erkrankungen. Bern.
- **Kickbusch, I. (2016).** Global health governance challenges 2016–Are we ready? *International Journal of Health Policy and Management, 5*(6), 349–353. https://doi.org/10.15171/ijhpm.2016.27

- 32 Kickbusch, I., Pelikan, J. M., Apfel, F., & Tsouros Agis D. (2013). Health Literacy. The Solid Facts. Copenhagen, World Health Organization. Isbn: 978 92 890 00154. https://apps.who.int/iris/handle/10665/326432
- 33 Kickbusch, I., Piselli, D., Agrawal, A., Balicer, R., Banner, O., Adelhardt, M., Capobianco, E., Fabian, C., Singh Gill, A., Lupton, D., Medhora, R. P., Ndili, N., Ryś, A., Sambuli, N., Settle, D., Swaminathan, S., Morales, J. V., Wolpert, M., Wyckoff, A. W., ... Wong, B. L. H. (2021). The Lancet and Financial Times Commission on governing health futures 2030: growing up in a digital world. *The Lancet, 398*(10312), 1727–1776. https://doi.org/10.1016/S0140-6736(21)01824-9
- 34 Kickbusch, I., Wait, S., Maag, D., McGuire, P., & Banks, I. (2005). Navigating health. The role of health literacy.
- 35 Kirchhoff, S., Dadaczynski, K., Pelikan, J. M., Zelinka-Roitner, I., Dietscher, C., Bittlingmayer, U. H., & Okan, O. (2022). Organizational Health Literacy in Schools: Concept Development for Health-Literate Schools. *International Journal of Environmental Research and Public Health*, 19(14).
- 36 Külling, C., Waller, G., Suter, L., Willemse, I., Bernath, J., Skirgaila, P., Streule, P., & Süss, D. (2022). JAMES - Jugend, Aktivitäten, Medien - Erhebung Schweiz. Zürich. Zürcher Hochschule für Angewandte Wissenschaften.
- 37 **Kutcher, S., Wei, Y., & Coniglio, C. (2016).** Mental health literacy: Past, present, and future. *The Canadian Journal of Psychiatry, 61*(3), 154–158.
- 38 **The Lancet. (2023).** The Lancet infographic: Rebalancing global power asymmetries to substantially improve human and planetary health. https://www.thelancet.com/pb-assets/Lancet/infographics/cdoh/image-1679052309040.pdf
- 39 Lazakidou, A. A., & Siassiakos, K. M. (2008). Handbook of research on distributed medical informatics and e-health. IGI Global.
- 40 **Limaye, V. S., Grabow, M. L., Stull, V. J., & Patz, J. A. (2020).** Developing A Definition Of Climate And Health Literacy: Study seeks to develop a definition of climate and health literacy. *Health Affairs, 39*(12), 2182–2188.
- 41 Logan, R. A., Wong, W. F., Villaire, M., Daus, G., Parnell, T. A., Willis, E., & Paasche-Orlow, M. K. (2015). Health Literacy: A Necessary Element for Achieving Health Equity. *NAM Perspectives, 5*(7). https://doi.org/10.31478/201507a
- 42 Malloy-Weir, L. J., Charles, C., Gafni, A., & Entwistle, V. (2016). A review of health literacy: Definitions, interpretations, and implications for policy initiatives. *Journal of Public Health Policy*, *37*(3), 334–352.
- 43 McKinsey Digital. (September 2021). Digitalisierung im Gesundheitswesen: Die 8,2-Mrd.-CHF-Chance für die Schweiz.
- 44 **Norman, C. D., & Skinner, H. A. (2006).** Ehealth Literacy: Essential Skills for Consumer Health in a Networked World. *Journal of Medical Internet Research, 8*(2), e9. https://doi.org/10.2196/jmir.8.2.e9
- 45 **Nutbeam, D. (2000).** Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International, 15*(3), 259–267.
- 46 **Nutbeam, D. (2008).** The evolving concept of health literacy. *Social Science & Medicine (1982), 67*(12), 2072–2078. https://doi.org/10.1016/j.socscimed.2008.09.050

- **Nutbeam, D. (2009).** Defining and measuring health literacy: what can we learn from literacy studies? *International Journal of Public Health, 54*(5), 303. https://doi.org/10.1007/s00038-009-0050-x
- **Nutbeam, D. (2017).** Discussion paper on promoting, measuring and implementing health literacy: Implications for policy and practice in non-communicable disease prevention and control.
- **Nutbeam, D., Levin-Zamir, D., & Rowlands, G. (2018).** Health literacy and health promotion in context. *Global Health Promotion, 25*(4), 3–5. https://doi.org/10.1177/1757975918814436
- **OECD. (2018).** Health literacy for people-centred care: Where do OECD countries stand? https://doi.org/10.1787/d8494d3a-en
- **OECD. (2022).** Health Data Governance for the Digital Age: Implementing the OECD Recommendation on Health Data Governance. Paris. OECD. https://www.oecd-ilibrary.org/content/publication/68b60796-en https://doi.org/10.1787/68b60796-en
- 52 Osborne, R. H., Elmer, S., Hawkins, M., Cheng, C. C., Batterham, R. W., Dias, S., Good, S., Monteiro, M. G., Mikkelsen, B., Nadarajah, R. G., & Fones, G. (2022). Health literacy development is central to the prevention and control of non-communicable diseases. *BMJ Global Health*, 7(12). https://doi.org/10.1136/bmjgh-2022-010362
- **Pahud, O., & Dorn, M. (2023).** Ärztinnen und Ärzte in der Grundversorgung Situation in der Schweiz und im internationalen Vergleich.
- 54 Park, E., & Kwon, M. (2021). Testing the Digital Health Literacy Instrument for Adolescents: Cognitive Interviews. *Journal of Medical Internet Research*, 23(3), e17856. https://doi.org/10.2196/17856
- **Parker, R. (2000).** Health literacy: a challenge for American patients and their health care providers. *Health Promotion International, 15*(4), 277–283.
- **Parker, R. (2009).** Measuring Health Literacy: What? So What? Now What? PowerPoint presentation at the Institute of Medicine workshop on measures of health literacy; Washington, DC.
- **Parker, R., Baker, D. W., Williams, M. V., & Nurss, J. R. (1995).** The test of functional health literacy in adults: A new instrument for measuring patients' literacy skills. *Journal of General Internal Medicine, 10*(10), 537–541. https://doi.org/10.1007/bf02640361
- **Parker, R., & Ratzan, S. C. (2010).** Health literacy: A second decade of distinction for Americans. *Journal of Health Communication, 15 Suppl 2,* 20–33. https://doi.org/10.1080/10810730.2010.501094.
- **Pelikan, J. M [Juergen M.], & Ganahl, K. (2017).** Measuring health literacy in general populations: Primary findings from the HLS-EU Consortium's health literacy assessment effort. Stud Health Technol Inform, 240, 34–59.
- 60 Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M. R., & Rahman, A [Atif] (2007). No health without mental health. *The Lancet*, *370*(9590), 859–877.
- 61 Ratzan, S., Parker, R., Selden, C., & Zorn, M. (2000). National Library of Medicine Current Bibliographies in Medicine: Health Literacy. *Bethesda, MD: National Institutes of Health.*
- **Richter, S. (2019).** Gesundheitliche Ungleichheit–Fakten und Erklärungsansätze unter besonderer Berücksichtigung von Health Literacy. *Versorgung Gestalten: Interdisziplinäre Perspektiven Für Eine Personenbezogene Gesundheitsversorgung*, 45.
- **Roe, D. (2019).** Biodiversity loss—more than an environmental emergency. *The Lancet Planetary Health, 3*(7), e287-e289.

- 64 **Rudd, R. E. (2015).** The evolving concept of health literacy: new directions for health literacy studies (No. 1). Taylor & Francis, 8.
- 65 **Rüegg, R., & Abel, T. (2019).** The relationship between health literacy and health outcomes among male young adults: exploring confounding effects using decomposition analysis. *International Journal of Public Health, 64*(4), 535–545.
- 66 **Samochowiec, J. (2020).** Future skills: Four scenarios for the world of tomorrow. Rüschlikon. Jacobs Foundation. https://gdi.ch/en/publications/studies/future-skills-pdf-2020-d#attr=
- 67 **Schaeffer, D., Hurrelmann, K., Bauer, U., & Kolpatzik, K. (2018).** Nationaler Aktionsplan Gesundheitskompetenz. Die Gesundheitskompetenz in Deutschland stärken. Advance online publication. https://doi.org/10.1515/pubhef-2016-2164 (Berlin: KomPart).
- 68 Schmeller, D. S., Courchamp, F., & Killeen, G. (2020). *Biodiversity loss, emerging pathogens and human health risks*. Springer, 29.
- 69 Schulz, P. J., Pessina, A., Hartung, U., & Petrocchi, S. (2021). Effects of Objective and Subjective Health Literacy on Patients' Accurate Judgment of Health Information and Decision-Making Ability: Survey Study. *Journal of Medical Internet Research*, 23(1), e20457. https://doi.org/10.2196/20457
- 70 Sørensen, K., Levin-Zamir, D., Duong, T. V., Okan, O., Brasil, V. V., & Nutbeam, D. (2021). Building health literacy system capacity: A framework for health literate systems. *Health Promotion International*, 36(Supplement_1), i13-i23. https://doi.org/10.1093/heapro/daab153
- 71 **Sørensen, K., & Pleasant, A. (2017).** Understanding the Conceptual Importance of the Differences Among Health Literacy Definitions. *Studies in Health Technology and Informatics, 240*, 3–14.
- 72 Sørensen, K., Van Den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., & Brand, H. (2012). Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*, 12, 80. https://doi.org/10.1186/1471-2458-12-80
- 73 Sørensen, K., Van Den Broucke, S., Pelikan, J. M., Fullam, J., Doyle, G., Slonska, Z., Kondilis, B., Stoffels, V., Osborne, R. H., & Brand, H. (2013). Measuring health literacy in populations: Illuminating the design and development process of the European Health Literacy Survey Questionnaire (HLS-EU-Q). *BMC Public Health*, 13, 948. https://doi.org/10.1186/1471-2458-13-948
- 74 **Steering Committee of NRP 74. (2023).** Programme summary of the National Research Programme "Smarter Health Care" (NRP 74). Bern.
- 75 **Steinhubl, S. R., Muse, E. D., & Topol, E. J. (2015).** The emerging field of mobile health. *Science Translational Medicine, 7*(283), 283rv3-283rv3.
- 76 Su, S., Wong, G., Shi, W., Liu, J., Lai, A. C. K., Zhou, J., Liu, W., Bi, Y., & Gao, G. F. (2016). Epidemiology, genetic recombination, and pathogenesis of coronaviruses. *Trends in Microbiology*, 24(6), 490–502.
- 77 Tangcharoensathien, V., Campbell-Lendrum, D., Friberg, P., & Lekagul, A. (2023). Political commitments needed to address health impacts of the climate crisis and biodiversity loss. Bulletin of the World Health Organization, 101(2), 82-82A.
- 78 **Tavousi, M., Mohammadi, S., Sadighi, J., Zarei, F., Kermani, R. M., Rostami, R., & Montazeri, A. (2022).** Measuring health literacy: A systematic review and bibliometric analysis of instruments from 1993 to 2021. *PloS One, 17*(7), e0271524. https://doi.org/10.1371/journal.pone.0271524
- 79 **Turney, C., Ausseil, A.-G., & Broadhurst, L. (2020).** Urgent need for an integrated policy framework for biodiversity loss and climate change. *Nature Ecology & Evolution, 4*(8), 996.

- **van Dijk, J. A. (2012).** The evolution of the digital divide-the digital divide turns to inequality of skills and usage. In *Digital enlightenment yearbook 2012* (pp. 57–75). IOS Press.
- **Vial, G. (2019).** Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems, 28*(2), 118–144. https://doi.org/10.1016/j.jsis.2019.01.003
- **Vogt, D., & Gehrig, S. M. (2020).** Bedeutung und Stärkung von Gesundheitskompetenz/Health Literacy in der Prävention und Gesundheitsförderung. In M. Tiemann & M. Mohokum (Eds.), *Springer Reference Pflege Therapie Gesundheit. Prävention und Gesundheitsförderung* (pp. 1–11). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-55793-8_18-1
- 83 Whitmee, S., Haines, A., Beyrer, C., Boltz, F., Capon, A. G., de Souza Dias, Braulio Ferreira, Ezeh, A., Frumkin, H., Gong, P., & Head, P. (2015). Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health. *The Lancet, 386*(10007), 1973–2028.
- **WHO. (1986).** Ottawa charter for health promotion, 1986. World Health Organization. Regional Office for Europe
- **WHO. (1994).** Life skills education for children and adolescents in schools. Pt. 1, Introduction to life skills for psychosocial competence. Pt. 2, Guidelines to facilitate the development and implementation of life skills programmes. World Health Organization.
- **WHO. (2003).** Skills for health: Skills-based health education including life skills: An important component of a child-friendly/health-promoting school. World Health Organization.
- **WHO. (2019).** Healthy, prosperous lives for all: the European Health Equity Status Report: executive summary. World Health Organization. Regional Office for Europe.
- **WHO (2020a).** Understanding the infodemic and misinformation in the fight against COVID-19. *Pan Am Health Organ*(5).
- **WHO. (2020b, August 25).** *Immunazing the public against misinformation.* https://www.who.int/news-room/feature-stories/detail/immunizingthe-public-against-misinformation
- 90 WHO. (2021a). The Geneva Charter for Well-being. Geneva.
- 91 WHO (2021b). Global strategy on digital health 2020-2025. 92400209.
- 92 WHO. (2021c). Health promotion glossary of terms 2021: Licence: CC BY-NC-SA 3.0IGO. Geneva.
- **WHO. (2021d).** *Tripartite and UNEP support OHHLEP's definition of "One Health": Joint Tripartite (FAO, OIE, WHO) and UNEP Statement.* https://www.who.int/news/item/01-12-2021-tripartite-and-unep-support-ohhlep-s-definition-of-one-health
- **WHO. (2022a).** Health Promotion: Track 2: Health literacy and health behaviour. World Health Organization (WHO). https://www.who.int/teams/health-promotion/enhanced-wellbeing/seventh-global-conference/health-literacy
- **WHO. (2022b).** Toolkit for tackling misinformation on noncommunicable disease: forum for tackling misinformation on health and NCDs. World Health Organization. Regional Office for Europe.
- 96 WHO. (2023a). eHealth. https://www.emro.who.int/health-topics/ehealth/
- 97 WHO. (2023b). Health Equity. https://www.who.int/health-topics/health-equity#tab=tab_1

- **Wirtz, M. A., & Soellner, R. (2022).** Gesundheitskompetenz Konstruktverständnis und Anforderungen an valide Assessments aus Perspektive der psychologischen Diagnostik. *Diagnostica, 68*(4), 163–171.
- **World Economic Forum. (2023).** The Global Risks Report 2023. Cologny/Geneva. https://www.weforum.org/reports/global-risks-report-2023/
- **World Health Organization. (2007).** *People-Centred Health Care: A policy framework.* https://apps.who.int/iris/bitstream/handle/10665/206971/9789290613176_eng.pdf
- **World Health Organization. (2022a).** Health literacy development for the prevention and control of noncommunicable diseases: Volume 2. A globally relevant perspective. (No. 2). Geneva Licence: CC BY-NC-SA 3.0 IGO.
- **World Health Organization. (2022b).** Health literacy development for the prevention and control of noncommunicable diseases: volume 4: case studies from WHO national health literacy demonstration projects (No. 4). Geneva Licence: CC BY-NC-SA 3.0 IGO.
- **World Health Organization. (2022c, November 6).** Health literacy development for the prevention and control of noncommunicable diseases: Volume 1. Overview. Geneva Licence: CC BY-NC-SA 3.0 IGO. https://www.who.int/publications/i/item/9789240055339

7 Appendix

A) Common terms of health literacy in the German-, French- and Italian-speaking parts of Switzerland

In the **German**-speaking part of Switzerland, the dominant term used for health literacy is «Gesundheitskompetenz». This term is also used by Austrian and German experts on health literacy and is widely applied in regional, national as well as cross-national initiatives in the DACH-Region. The Careum Center for Health Literacy, the Health Literacy Alliance of Switzerland as well as the FOPH use the term Gesundheitskompetenz in their publications.

In the **French**-speaking part of Switzerland common terms for health literacy are «Compétences en santé» and «Littératie en santé». However, the term Compétences en santé has been defined as the more applicable by the HLS19-21-CH, by the Health Literacy Alliance of Switzerland and in publications of the FOPH. Therefore, this concept paper builds on this suggestion.

In the **Italian**-speaking part of Switzerland common terms of health literacy are «Alfabetizzazione sanitaria», «Cultura della salute» and «Competenze di salute». The later has been used in the HLS19-21-CH, by the Health Literacy Alliance of Switzerland and in publications of the FOPH and is suggested as Italian translation for health literacy in this concept paper.

B) Glossary

Term	Short description
Basic (or fundamental) skill	«A basic ability usually considered necessary for competent functioning in society (e.g., reading, basic mathematics, essential communication skills)» (American Psychological Association, 2023).
Bundle of competences	Health literacy does not present a single competence, but rather a bundle of interrelated competences which interact and overlap with each other. While the carriers of these competences are individuals, competence-enablers appear on different levels (i.e., organizations, professionals, community, systems).
Competences	Individual capacities for action that are necessary to cope with future economic, political, and cultural challenges (Erpenbeck, 2010).
COVID-19 pandemic	«The coronavirus is one of the main pathogens that can attack the human respiratory system and cause respiratory diseases (Su et al., 2016). The new coronavirus, the so-called «SARS-CoV-2» («Severe Acute Respiratory Syndrome Coronavirus 2»), belongs to this virus family. The disease caused by the new virus was first discovered in the Chinese city of Wuhan in December 2019 and officially named «COVID-19» («Coronavirus-Disease-2019») by the WHO on 11 February 2020 (Wu et al., 2020). After an initial major spread, COVID-19 has developed into a worldwide pandemic». (De Gani et al., 2021)
Critical health literacy	«The ability to reflect upon health determining factors and processes and to apply the results of the reflection into individual or collective actions for health in any given context» (Abel & Benker, 2022, p. 2). In this sense, critical health literacy is not only one level of health literacy (Nutbeam, 2000), but it reflects a fundamental individual and collective skill.
Determinants of health	«The range of personal, social, economic and environmental factors that determine the healthy life expectancy of individuals and populations.» (WHO, 2021c)
Digitalization	«Digitalization involves organizational and cultural changes to include and maintain technologies in the process of service delivery to meet established goals». (Iyamu et al., 2021, p. 9)
Digital divide	The digital divide can be understood as inequalities in four successive types of access: motivation, physical access, digital skills, and different usage (van Dijk, 2012).
Digital health literacy	Digital health literacy is included in the notion of health literacy and comprises the ability to find, understand, assess and apply health information from digital sources in order to make decisions in daily life that have a positive impact on health (De Gani et al., 2021; Sørensen et al., 2012).
Digital transformation	Digital transformation is a complex process where digital technologies create disruptions triggering strategic responses from organizations that seek to alter their value creation paths while managing the structural changes and organizational barriers that affect the positive and negative outcomes of this process (lyamu et al., 2021; Vial, 2019).
eHealth	eHealth is «the cost-effective and secure use of information and communications technologies in support of health and health-related fields, including health-care services, health surveillance, health literature, and health education, knowledge and research.» (WHO, 2023a)

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Empowerment	«Empowerment results from social, cultural, psychological or political processes through which individuals and social groups are enabled to express their needs, present their concerns, devise strategies for involvement in decision-making, and achieve political, social and cultural action to meet those needs including co-creating the policies and services that affect and serve their communities. Through such a process people see a closer correspondence between their goals in life and a sense of how to achieve them, and a relationship between their efforts and life outcomes». (WHO, 2021c)
Future skills	Future skills do not only enable people to react flexibly to any potential future, but to proactively design and shape those futures (Samochowiec, 2020).
Health equity	«The absence of avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically or by other means of stratification. (Health equity) or (equity in health) implies that ideally everyone should have a fair opportunity to attain their full health potential and that no one should be disadvantaged from achieving this potential.» (American Medical Association, 2021; WHO, 2023)
Health-related information	Health-related information means all kinds of information, whether oral or recorded, in any form or medium, directly or indirectly linked to health and well-being, diseases, causes, symptoms, risks, health promotion and prevention, benefits and services. Health-related information is required for a wide variety of purposes, including building knowledge and understanding of health conditions; helping people to make decisions; supporting choices in relation to treatment, management or social care options; identifying, choosing and accessing appropriate healthcare providers; and educating patients and the public about public health risks and health prevention (based on Lazakidou & Siassiakos, 2008).
Health literacy development	«The ways in which health workers, services, systems, organizations and policy-makers (across government sectors and through cross-sectoral public policies) build the knowledge, confidence and comfort of individuals, families, groups and communities through enabling environments. Enabling environments support people to access, understand, appraise, remember and use information about health and health care, through verbal, written, digital and other communication channels and social resources, for the health and well-being of themselves and those around them, within the circumstances and demands of their daily lives.» (World Health Organization, 2022b, p. 7)
Health literacy responsiveness	«The extent to which health workers, services, systems, organizations and policy-makers (across government sectors and through cross-sectoral public policies) recognize and accommodate diverse traditions and health literacy strengths, needs and preferences to create enabling environments that optimize equitable access to and engagement with health information and services, and support for the health and well-being of individuals, families, groups and communities.» (World Health Organization, 2022b, p. 7)
Health policy	«Refers to decisions, plans, and actions that are undertaken to achieve specific health (care) goals within a society.» (WHO, 2021c)

HLS-EU-Q	«The European Health Literacy Survey Questionnaire (HLS-EU-Q) is currently the most widely used instrument for measuring the general health literacy of a population. The HLS-EU-Q uses respondents' assessments to measure health literacy at the individual level. The items of the HLS-EU-Q are based on the health literacy definition according to Sørensen et al. (2012). There is a long version of the instrument with 47 questions (HLS-EU-Q47) and a short version with 12 questions (HLS-EU-Q12).» (De Gani et al., 2021)
Infodemic	According to the WHO, an infodemic represents «an overabundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance when they need it» (WHO, 2020a, p. 2).
Life skills	«Life skills are abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of every-day life []. In particular, life skills are a group of psychosocial competences and interpersonal skills that help people make informed decisions, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and cope with and manage their lives in a healthy and productive manner. Life skills may be directed toward personal actions or actions toward others, as well as toward actions to change the surrounding environment to make it conducive to health.» (WHO, 2003, p. 3)
Mental health literacy	In this concept paper, the term is understood in line with the description of it in De Gani et al. (2021): Mental health literacy is part of health literacy (based on the definition of Sørensen et al. (2012)) and expanded on by Kutcher et al. (2016), who define four components of mental health literacy: (1) understanding how to obtain and maintain positive mental health, (2) understanding mental illness and its treatments, (3) destigmatizing mental illness, and (4) knowing when and where to get support and developing skills to improve one's mental health and self-management skills.
Navigation health literacy	In line with De Gani et al. (2021), navigation health literacy is understood as part of health literacy and includes the knowledge, motivation, and skills of people to be able to find, understand, assess and apply the information necessary to navigate and find their way through the health system, organizations and services in different forms, and thus to obtain the best possible care for themselves or their loved ones (De Gani et al., 2021; Griese et al., 2020).
Noncommunicable diseases (NCD)	«Noncommunicable diseases (NCDs) are diseases that are non-communicable/non-contagious and usually have a long-term chronic course. They occur in the population, especially in the older generation. Therefore, the terms (chronic diseases) or (diseases of civilization) are often used. Next to mental illnesses, five groups of diseases are responsible for a large part of the burden of disease in Switzerland: Cancer, diabetes, cardiovascular, chronic respiratory or musculoskeletal diseases. These NCDs are causally linked to four widespread and lifestyle-modifiable risk factors: unbalanced diet, lack of physical activity, tobacco use, and excessive alcohol consumption.» (Federal Office of Public Health (FOPH) 2016)
One Health	The WHO's «One Health» approach «recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent» (WHO, 2021d).
People	Based on the WHO understanding of the term «people», this concept paper uses the term to refer «not only to individuals but also to collectives such as families, communities and groups associated by kinship or land, and nations» (WHO, 2022a).

Polycrisis	«A cluster of related global risks with compounding effects, such that the overall impact exceeds the sum of each part.» (World Economic Forum, 2023, p. 57)
Self-management	«Self-management comprises what people with long-term illnesses and their relatives do to master their lives with the daily challenges and to find a balance again and again.» (Kessler & Lasserre Moutet, 2022)
	Figure 2: Self-management as an aspect of health literacy (adapted from Kesseler & Lasserre Moutet, 2022)
	healthy at risk ill
	self-management competences
	health literacy
Self-management support	Self-management support means what all actors (affected persons, professionals, affected relatives and peers) undertake together to strengthen the self-management skills and resources of people with long-term illnesses and their relatives. (Kessler & Lasserre Moutet, 2022, translated into English)
Settings	«Health literacy development is undertaken across all settings where people's knowledge, understanding and behavior about health can be influenced. This includes prenatal environments, people's homes, villages and cities, schools and workplaces – that is, all the places where people are exposed to health-related information and where their health behaviors may be influenced» (World Health Organization, 2022b, p. xi)
Therapeutic patient education	«Educational activities essential to the management of pathological conditions, managed by health care providers duly trained in the field of education, designed to help a patient (or a group of patients and their families) to manage their treatment and prevent avoidable complications, while keeping or improving their quality of life.» (WHO, 1998)
Well-being	«Well-being is a positive state experienced by individuals and societies. Similar to health, it is a resource for daily life and is determined by social, economic and environmental conditions.» (WHO, 2021c)
Well-being society	According to the WHO, «well-being societies provide the foundations for all members of current and future generations to thrive on a healthy planet, no matter where they live» (WHO, 2021a, p. 2). Well-being societies are characterized by bold policies and innovative, transformative approaches, which build on (i) a positive and holistic vision of health and well-being; (ii) the principles of human rights, justice, equity, and peace; (iii) social and ecological responsibilities; (iv) new indicators of success and prosperity; and (v) a strong focus on empowerment, inclusivity, equity, and meaningful participation (WHO, 2021a).

