Introduction

This chapter poses a fundamental – and increasingly urgent – question in the field of health literacy: how do we prepare adults with low basic skills in English, reading/writing and maths to navigate today’s healthcare system? In the US it is impossible to answer this question without a working understanding of our federally funded adult basic education (ABE) system. It is also impossible to answer this question without an informed appreciation of how enrolment in ABE courses can lead to meaningful change in areas such as improved health, employability and civic participation. This chapter seeks to fill this knowledge gap for health literacy practitioners, researchers and policy-makers who may not be familiar with the US ABE skills system.

We make the case for developing health literacy interventions that (1) harness the pedagogical expertise about literacy learning already well established in the ABE field and (2) are not constrained by ideologies about low literacy and patient competence that treat health literacy as an autonomous set of skills that a patient/learner does or does not master (for more information on autonomous literacy models, see Chapter 36, this volume). Our argument is not wholly original, as researchers working at the nexus of adult education and public health (Rudd, 2002; Pappen, 2009; Black et al, 2013) have long argued for such an ideological shift, and yet the level of investment in partnership building and interdisciplinary collaboration with the ABE system remains disproportionately thin compared to investment in the development of new health literacy measures, the creation of easy-to-read health materials or clinical communication strategies.

After making the case for re-thinking our assumptions about health literacy, we shift our attention to the promise of health literacy interventions based in the ABE context. In what ways are ABE classrooms uniquely qualified to support health literacy growth? We argue that a broader understanding of health literacy as a cognitive skill and social practice will lead to a fuller, more accurate appraisal of how adult educators support health literacy growth. A narrow view on health literacy as a bound set of reading and speaking skills does not account for the work adult
educators do to leverage their learners’ knowledge and skills to navigate a variety of contexts, such as healthcare, employment and their children’s schools. Many adults with low basic skills view their classrooms as safe, non-threatening environments where asking questions and active problem-solving are encouraged; these classrooms warrant more attention as vital gateways to equitable access in healthcare. We draw attention to the unharnessed promise of health literacy interventions in ABE classrooms as valid spaces for meaningful health literacy growth.

**Framing health literacy in the adult basic skills educational context**

For many adult basic skills educators, it is pointless to teach the cognitive dimensions of literacy (that is, the mental processing of information when reading, writing or speaking) without taking into account the functional purposes of literacy (that is, the real-world tasks that require these skills) or the social value of those literacy tasks, such as getting a better job or enrolling in health insurance. With this emphasis on the active application of literacy skills, the pedagogical goals of many adult education classrooms are most in line with health literacy definitions and intervention approaches that emphasise the acquisition of new social practices in the healthcare environment, not merely the acquisition of reading/writing skills or the ‘depositing of health content into learners’ minds’ (Freire and Macedo, 2013). While early health literacy frameworks tended to link improved health literacy to increased patient comprehension and compliance with healthcare instructions, adult learning frameworks tend to focus on literacy as a vehicle for learner empowerment and social agency (cf Knowles, 1980; Wallerstein, 1983; Nash et al, 1992).

To bridge cross-disciplinary boundaries between health literacy and adult education, we need health literacy frameworks that can unify a focus on literacy as a social practice and learning process. The definition from the Calgary Charter on health literacy is particularly valuable because it recognises the cognitive, linguistic and social skills that contribute to one’s health literacy competence:

The use of a wide range of skills that improve the ability of people to act on information in order to live healthier lives. These skills include reading, writing, listening, speaking, numeracy, and critical analysis, as well as communication and interaction skills. (Coleman et al, 2011)

The Calgary Charter also emphasises that health literacy is an attribute of ‘the public and personnel working in all health-related contexts’, not an individual characteristic. This definition enables us to appreciate that our health literacy is linked to the health literacy competence of those around us (for example, peers, teachers, family members and health professionals). The Calgary Charter is unique in that it specifies principles for curriculum design, providing a useful framework for integrating health literacy learning and teaching in adult basic skills classrooms (see Chapter 5, this volume, for a pilot project based on the Calgary Charter).
Nutbeam’s (2000) definition of health literacy broadly interprets the meaning of ‘social context’ in healthcare, ranging from one’s personal healthcare circumstances to the larger public health environment that shapes our access to resources. Nutbeam (2000, p 263) argues that ‘the narrow definition of health literacy misses much of the deeper meaning and purpose of literacy for people…. One approach to classification simply identifies types of literacy not as measures of achievement in reading and writing, but more in terms of what it is that literacy enables us to do.’ In this way, Nutbeam treats health literacy as a resource for healthy living, not an end unto itself. This view is particularly useful when working with adult learners whose skill deficits tend to be magnified if their health literacy is reduced to competency in English proficiency or reading comprehension.

Nutbeam’s (2000) conceptualisation of health literacy includes three types of literacy – basic/functional, communicative/interactive and critical – a scaling that demonstrates ‘different levels of literacy progressively allow for greater autonomy and personal empowerment’ (2000, p 264; for more information see also Chapters 1, 11 and 14, this volume). Nutbeam’s inclusion of critical literacy complements adult learning frameworks that value increased autonomy and self-empowerment as important literacy outcomes (cf Wallerstein, 1983; Auerbach, 1992; Nash et al, 1992). From a critical approach, adult educators are problem-positers who ask ‘questions that … help students think more analytically about aspects of their lives that they may assume cannot be changed’ (Degener, 2001). When students collectively reflect on their ‘common sense knowledge’ – for example, how much sugar is in a can of soda (fizzy drink) – they are able to identify the reasons behind their struggles to live healthy lives, and identify action steps. This is where Nutbeam’s (2009) ‘critical health literacy’ becomes critical! Because adult educators work closely with students over the course of this discovery process, their influence on students’ critical health literacy merits far greater attention in health literacy research and in proposed interventions to educate ‘vulnerable’ communities.

Health literacy in the US basic skills population: a brief history

The health literacy movement began in different countries via a variety of initiatives (Pleasant, 2013). In the US it was catalysed largely by the results of a large national study that showed a surprisingly low rate of functional literacy among adults. Two successive studies produced similar, equally discouraging results. The National Adult Literacy Survey (NALS) in 1992 found that almost half of American adults had marginal literacy skills. These findings prompted conversations about why so many people struggle to understand complex health information and, indeed, further studies revealed serious gaps between the reading skills of adults and the literacy demands of the healthcare system. This skills gap motivated adult literacy educators to ramp up the focus on health literacy in their classrooms to prepare their students meet these healthcare challenges. This ABE response to the health communication needs of their students was already
underway before the public health field began addressing the problem on a widespread scale and adopted health literacy practices and policy goals (Sticht, 2002).

In 2003, a follow-up iteration of the NALS was administered under a new name – the National Assessment of Adult Literacy (NAAL) – and included 28 items that measured health literacy skills in addition to measures of document literacy, prose literacy and numeracy skills. A major finding was widely published in healthcare and other fields: 90 million Americans – almost half of the total population – did not have the skills to take care of their health (Nielsen-Bohman et al, 2004). The NAAL further revealed that the demographic groups with the lowest levels of health literacy included people who had not finished high school and those whose primary language was not English. As we discuss later, these demographic characteristics also describe many adult learners in ABE programmes.

These distressing survey results sparked a movement to reduce the literacy-related demands of the healthcare system. New standards in plain language were applied to written materials, and new techniques for oral communication were created for healthcare providers. Now, there were focused efforts on both sides working to close the health literacy gap: providers were lowering barriers, and individuals were being educated in health literacy skills. Unfortunately, although the NAAL results generated this momentum, no plans were made to do follow-up surveys to see if these skills improved over time.

Starting in 2012, a new assessment platform, called the Program for the International Assessment of Adult Competencies (PIAAC), was administered in 24 developed countries. The PIAAC did not include a health literacy component, but assessed three categories of skills: (1) literacy, (2) numeracy, and (3) problem-solving in technology-rich environments. Since the PIAAC measurements and skill level categories did not match those of the NAAL, results could not be compared to see if US adult skills, particularly in the health literacy domain, had improved since 2003. The PIAAC results, however, did show that the US was poorly ranked in all categories, especially numeracy (Rampey et al, 2016). Another notable finding was that the US, along with Germany, had a significantly stronger association between literacy skills and self-reported health status than other countries. In other words, poor functional literacy skills appear to be a stronger predictor of health outcomes in the US than in most other countries. This finding further supports the need for a strong system of ABE and for incorporating health literacy skills into its curricula.

Adult basic education in the US

A focus on the ABE system in the health literacy field signals a commitment to supporting health literacy advancement where many adults are already invested in learning new skills. Adult education in the US is a loosely organised system of programmes that help adults to improve their skills in order to function more successfully in society. Funding comes from multiple government agencies,
but primarily through Title II, Adult and Family Literacy, of the Workforce Innovation and Opportunity Act (WIOA). There is little federal oversight of how programmes should be structured or how programmes should articulate with one another. While the system is often viewed as an unarticulated ‘patchwork of services’ (Wrigley, 2007), this fragmentation also means that states and regional districts bear much of the decision-making responsibility for how to address the basic skills needs of local populations.

ABE programmes are run by a diverse array of providers, including adult learning centres, public schools, community colleges, regional multi-service centres, career development centres, employers, housing developments, religious organisations, correctional institutes and various community-based organisations. The adult education teacher workforce largely consists of part-time professionals or volunteer tutors. Although most states have set forth professional teaching standards, these do not always translate into ongoing professional development or training opportunities. These training opportunities, however, have been expanding, with more programmes addressing adult learning theory and English as a second language (ESL)/literacy instruction, thus deepening the pedagogical expertise of the ABE workforce. There is also an emerging practice of training ABE teachers to address health literacy specifically, which guides them in how to approach this topic, and links them to a growing body of health literacy curricula and other supports.

In 2015, the ABE system served over 1.5 million adult learners (US Department of Education, 2016), although the need for services is estimated to be much higher: about 4 per cent (over 12 million adults) of the US adult population report not speaking English well, and about 12 per cent (over 37 million adults) lack a high school credential. Most publicly funded programmes operate at capacity, so there are waiting lists for classes across all 50 states (National Council of State Directors of Adult Education, 2012).

While the contexts of delivery may vary, ABE programmes share a common curricular goal: to teach literacy, numeracy and digital literacy skills, and ultimately, to help adult learners use these new skills to improve their lives. These improvements may manifest in getting better jobs, continuing their formal education, participating more fully in community and civic activities and taking care of their families’ health.

ABE programmes enrol learners from diverse ethnic, racial and linguistic backgrounds, schooling histories and learning goals. The ABE population includes demographic groups that overlap with those groups historically deemed ‘at-risk’ or under-resourced in healthcare, including adults who have low income or are un- or under-employed, immigrant and refugee adults who are not proficient in English, and elderly adults (US Department of Education, 2015, 2016). For several decades, the ABE system has supported the integration of adult education programming with early childhood education for parents or caregivers of young children (Clymer et al, 2017). Despite drastic cuts to family literacy programmes in recent years, large numbers of parents/caregivers continue to enrol, making
the ABE system arguably one of the most significant contexts for addressing the health literacy needs of this population. The ABE system also serves an increasing number of youth aged 16–24 (Davis, 2014), a population that to date has received little attention in health literacy research (Manganello, 2008). The ABE system also serves historically hard-to-reach populations, such as immigrant and refugee adults without legal documentation, as well as English language learners with little to no print skills in the primary language, and limited formal schooling experience (one of the fastest growing sectors of English language programming; see Center for Applied Linguistics, 2010).

Adult educators are ideally positioned to speak to the diversity of the ABE population and their learning needs and goals. By tapping into this professional knowledge base, the health literacy field can help move adult educators into a position of greater visibility and influence in the health literacy field, and suggest strategies for cross-disciplinary partnerships. For more information on the link between adult education and health literacy see Chapter 2, this volume.

**Evidence base**

Many ABE programmes now integrate health literacy skills into their curricula, and in some cases offer stand-alone health literacy classes, which combine the standard goals for literacy, numeracy or language acquisition with health literacy goals. For far longer than the health literacy field has been around, teachers have found that using health as a context is motivating for students and helps them to master the competencies for literacy and language acquisition (cf Sticht, 2002).

A growing body of empirical literature demonstrates that health literacy instruction in ABE classrooms has a positive impact on adult learners’ health literacy skills and, in turn, on their health behaviours. Studies have documented gains in the following areas for adult learners: knowledge of health topics and preventive health actions; confidence and self-efficacy to advocate for their needs; skills to find information and communicate with healthcare providers; and ability to navigate the healthcare system, make informed healthcare decisions and understand their rights and responsibilities (Kurtz-Rossi et al, 2006, 2007; Levy et al, 2008; Soto Mas et al, 2013; Santos et al, 2014). Other researchers have measured intention to act, and found positive gains as well. For example, learners have reported that they were more likely after the instruction to make a doctor’s appointment, get a screening or change their lifestyle (Kurtz-Rossi et al, 2007). Another important finding concerns the diffusion of the new information and skills to learners’ families and communities (Kurtz-Rossi et al, 2006; Hohn et al, 2010; Santos et al, 2014), which highlights the impact of classroom instruction on the broader community.

The ABE curricular focus of health literacy studies varies. Some studies focus on integrating a broad range of navigation and communication skills (for example, talking to healthcare providers, reading health labels) into the ABE curriculum (Soto Mas et al, 2013). Health literacy skills have also been addressed in the context
of specific healthcare topics, including lead poisoning prevention (Handley et al, 2009), healthy eating (Santos et al, 2011; Duncan et al, 2012), type 2 diabetes (Santos et al, 2014), hepatitis B (Coronado et al, 2008; Taylor et al, 2008), and breast and cervical cancer (Kurtz-Ross et al, 2006). This list reflects the wide range of health content that ABE educators value as curricular themes. These findings demonstrate not just the acquisition of new skills, but also their practical use, and the civic engagement and social empowerment that results.

More research needs to examine the educational pedagogies that result in significant gains. As noted earlier, there is great variety in teaching methods and in professional development in the ABE system, but for the most part, ABE teachers employ a participatory approach that values the students’ beliefs and experience, and provides ample time to discuss, process and practice the use of new skills and knowledge. Hohn et al (2010) investigated teaching methodologies, and found that the ABE class’ ‘collective efficacy’ – the support of peers during the learning process – contributed to individual self-efficacy.

While this literature is growing, many successful models and partnerships do not make their way into leading public health journals. Thus the ‘practitioner wisdom’ of ABE teachers about the variation and dynamics in health literacy learning is rarely visible to public health scholars. For example, a recent white paper, *Adult basic education and community health center partnerships: Improving the health of ABE learners*, produced by the Open Door Collective, features several successful, sustained ABE–public health partnerships and curricular models that have not been fully documented in the scholarly literature.

Very few of the aforementioned studies measured the health literacy levels of the learners using conventional tools in the health literacy field. In fact, the most common available tools, like the Rapid Estimate of Adult Literacy in Medicine (REALM) or Test of Functional Health Literacy in Adults (TOFHLA) are designed to measure health-related literacy rather than the more robust concept of health literacy that is accepted today. Instead, several of the ABE studies used pre- and post-tests to tap into gains in health knowledge (for example, anatomy terminology, the difference between primary and emergency care), changes in self-care skills and knowledge (how to do a breast self-exam), and intention to change behaviours. Additionally, several of these studies used common standardised measures, such as the Test of Adult Basic Education (TABE), to track gains in programme-mandated curricular goals, and found that general literacy skills improved at least as much as in classes without the health literacy content. This finding signals a need to re-think health literacy measurement tools and to invest in sustained partnership with literacy educators.

**An example: Health literacy learning in the HEAL:BCC programme**

ABE classrooms are places where adults learn new skills and are given multiple opportunities to *talk* about their learning. Extensive adult learning theory has demonstrated that this metacognition, referring to a person’s awareness and
management of their own learning process (Oxford, 1990), plays a critical role in learning any new skill. By working with ABE teachers and learners, the health literacy field is better poised to gain more insight into health literacy learning as a metacognitive activity: when a learner expresses the need for more health information or seeks to take action to improve their health, the classroom responds by providing a meaningful context for goal-setting, identifying resources for problem-solving, reflecting on milestones or roadblocks, and applying new skills to future contexts. ABE classrooms provide a unique window into health literacy learning as a process of learning how to manage one’s own goals for living a healthy life. We illustrate this promise with a discussion of the ABE-based health literacy programme called HEAL:BCC (Health Education and Adult Literacy: Breast and Cervical Cancer) (Kurtz-Rossi et al, 2006, 2007). Health literacy skills were effectively taught in these classrooms and contributed to gains in navigation skills, knowledge about cancer prevention, self-efficacy and changes in behavioural intention, including getting a wellness check-up and scheduling a mammogram.

HEAL:BCC was a collaboration between World Education, Inc and the US Centers for Disease Control (CDC), supported by a three-year demonstration grant. A partnership between ABE teachers, public health researchers and health educators, the project aimed to raise awareness and improve access to information about breast and cervical cancer to ABE learners. Implemented and evaluated in ABE programmes across eight states, the comprehensive curriculum addressed several topics, including: good health, risk assessment, cancer, preventive habits, early detection, communicating with healthcare providers and accessing services.

An over-arching goal of HEAL:BCC was to encourage more women in the ABE programmes – many of whom were low-income – to get pap smears and mammograms. Ultimately, the curriculum sought to help both women and men in the ABE classes ‘better understand health information, take action for themselves, and advocate for their families and communities.’ These goals are reflected in these teacher comments:

‘As a language teacher, I saw my role more clearly as providing vocabulary and basic health information about breast and cervical cancer and providing opportunities to practice language skills that would help students access the health services available in the United States. I wanted to give the students the tools they needed to get a Pap smear and a mammogram, to know more about breast self-examination, and to talk with their health practitioners more about all of this…. One concrete goal was to get women students in my class to the clinic for Pap smears and if needed mammograms and to start doing regular breast self-exams. Most important for the men and women in the class, I wanted to bring these issues into their everyday consciousness.’ (quoted in Hewitt, 2005)
Putting the literacy back into health literacy

HEAL:BCC incorporated a variety of learning tasks designed to support the students’ individual and collective exploration of emotional and personal experiences of illness or healthcare:

- learning and practising new vocabulary related to cancer prevention (for example, mammogram) and preventive health more broadly (for example, risk, screening);
- role-playing scenarios, like a friend seeking out healthcare advice from a peer;
- oral presentations in which students have the opportunity to present information about cancer prevention to their peers; and
- a blend of small-group and large-group discussions in which students discussed cancer risk statistics or personal stories about cancer.

As suggested by this list, the HEAL:BCC teachers’ integration of a variety of instructional approaches was significant because students were given multiple, meaningful opportunities to engage with the cancer content, check their comprehension, compare perspectives and ask questions, thereby increasing the likelihood of learner uptake and retention of new information. In contrast to efforts to ‘simplify’ health content in ‘plain language’ campaigns, the goal in HEAL:BCC lessons often focused on message abundancy, referring to the ‘amplification and enrichment’ of the learning context, ‘so that students do not get just one opportunity to come to terms with the concepts involved, but in fact may construct their understanding on the basis of multiple clues and perspectives encountered in a variety of class activities’ (Walqui, 2006, p 196).

While the curriculum addressed the literacy and language skills that were required by the ABE programmes, it was also geared toward taking action (for example, self-assessing one’s own risk) and then processing these individual action steps as a group. Learners were encouraged to share stories of people they knew who were affected by cancer, and the teachers created a space for these conversations. Learners were also encouraged to share and process their own cultural views, beliefs and experience with health and healthcare. This personalised approach to instruction had a positive impact on the students’ health behaviours and motivation to make changes. As one teacher observed, “it became clear that it is not necessarily just a lack of knowledge about Pap smears or mammograms that keep people from getting them: it is deeply rooted attitudes, experiences and health practices.” Through multiple opportunities to compare their ‘common sense’ perspectives about cancer with that of their peers’ experiences, and the information presented in the curriculum, the learners were able to incorporate the new information with their own beliefs and experiences. Throughout the course, students were encouraged – by their peers and teachers – to adopt healthy habits, make appointments with healthcare providers and share what they were learning with their families and friends. In this way, the impact went far beyond learning the literacy or language skills, and helped to support the use of these new skills to take action for the learners’ own health, and to become agents of change in their communities.
The impact of the HEAL:BCC curriculum is captured in the voices of this teacher and students:

‘Mary’s story [about breast cancer] helped students look at their own health attitudes and behaviors. One student took it home and shared the story with her teenaged daughter. Her daughter’s response was, “Mami, you have to take care of yourself, go to the clinic to make an appointment for a check-up. It’s a serious problem.” And in fact that student did go have a much needed check-up after we finished.’ (quoted in Kurtz-Rossi et al, 2006)

‘I learned that when I have some problem with the health I should go to the doctor. When I talk to the doctor I shouldn’t feel shy to talk to the doctor all about my problem.’ (quoted in Kurtz-Rossi et al, 2006)

‘I learned that I have to pay attention to my mother and my sister because sometimes my mother doesn’t go to her appointment. I don’t know if she had a mammogram or Pap smear.’ (quoted in Hewitt, 2005)

In sum, trained adult educators, like those who worked on the HEAL:BCC curriculum, have pedagogical strategies for creating safe learning environments where students feel free to admit confusion, share personal experiences and ask questions. They also have strategies for breaking down concepts that are hard to learn, and helping learners incorporate new skills into their daily lives. Each unit in the curriculum included opportunities for learners to share what they already know and want to know about cancer, and generate real-world goals. In this way, the teaching and learning strived to be authentically person-centred and participatory. These qualities – which emerge because there was a professional commitment to learner engagement in the HEAL:BCC project – demonstrate the ripe conditions needed for meaningful health literacy learning.

**Final thoughts**

We began this chapter with a question about the scope of work required to improve health literacy outcomes for adults with low basic skills. We hope our readers are convinced that the pursuit of answers will be most productive if viewed as a shared commitment between adult education and public health. We know that exploring answers to this question will likely test some enduring assumptions about literacy and literacy growth that guide health literacy policies and interventions. To effectively address the health literacy needs of adults with basic skills, we must embrace a broader understanding of literacy as both a cognitive skill and social practice, as well as foster a deeper appreciation for health literacy learning in adult education classrooms.
While we have focused on health literacy in US adult education contexts, we acknowledge that there is a critical need to share evidence, measurements, and intervention designs across international lines. These discussions will be particularly useful to have with countries that have extensive basic skills education systems, health literacy policies that specify a role for the adult basic skills education or similar shifts in immigration patterns (cf Pleasant, 2013). We also hope that the approach, methods and curricular resources used by US ABE programmes to address health literacy challenges can serve as a model for basic skills programmes in other countries.

Increased investment in partnership-building between the US adult education and health literacy researchers will go a long way in changing the landscape in health literacy interventions. And yet, expanded sources of funding alone will be insufficient. Effective partnerships will also require a serious interrogation of what we think health literacy is and a renewed commitment to interdisciplinary problem-solving.

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