

# TECHNOLOGY, HEALTH CONSUMERISM, AND A NEW AGE OF GLOBAL HEALTH—WHO WILL BE LEFT BEHIND?

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## Purpose

The goal of this research was to explore the following questions:

- What is the role and importance of health consumers within the healthcare system?
- How will the shift towards a technologically revolutionized, health consumer driven model, widen disparities between the health statuses of different populations?

In order to investigate the potential impact of continued growth of the health consumerism movement on health care inequities, this project aimed to identify and synthesize existing health consumerism discourse in order to assess relationship between health consumerism and the health of different populations; the abilities, needs, and values within existing health consumer literature were qualitatively analyzed.

## Background:

Shifts in terminology from patient to consumer reflect the sentiment of a more active patient role in the healthcare process, however health science technologies have begun to develop which transcend this active role even further by directing health information primarily at consumers. Historically, healthcare systems have been accepted as running on compliance based patient-provider interaction models (1). Compliance in this sense refers to a model in which patients are expected to follow the orders of healthcare providers without any input into their healthcare decisions whatsoever (2). In this model the healthcare provider is often the sole source of health information. However, new models based on concordance have begun to emerge which place the patient in a position of equal responsibility and power in the decision making process regarding their health and treatment (2). In part, these shifts have been driven by increased numbers of web and technology enabled health information sources (3). Enhanced health information access and personal choice for patients over where and how knowledge and services are accessed have been captured in the introduction of the term health consumer to health care discourse. The term health consumer as it is often defined implies an active role of patients in assessing and deciding healthcare options(4). Shifts in terminology from patient to consumer reflect the sentiment of a more active patient role in the healthcare process, however health science technologies have begun to develop which transcend this active role even further by directing health information primarily at consumers. The role of developing health consumer focused technologies, motivation behind their development, as well as their implication for the health of groups of varying abilities has yet to be examined within the literature.

## Methods: Literature Review

### Database

•A literature review was conducted of the following databases: GlobalHealth, HealthStar, HealthSource Consumer Edition, New York Times, and Canadian News Stand, using the keyword "health consumer".

### Search Limits

•Databases searches were organized into 4 time periods: 1900-1930, 1930-1960, 1960-1990, 1990-2011, as were limited to English full text articles only.

### Inclusion Criteria

•To be included within the review articles had to contain the keyword, as well as have health in the title or abstract. Articles had to address the research questions explicitly within and/or one of the following additional criteria: roles of individuals in the healthcare system, role of the healthcare system, consumer health technologies, shifts to consumer model, the meaning of health or healthcare, guides to do-it-yourself health diagnostics and/or self-directed healthcare.

### Analysis

•Articles included were coded using NVIVO 9

•Themes were identified (grounded theory) and sorted chronologically. Node structure and coding were reviewed throughout.

## Results

A total of 151 articles were included within the review. No articles fitting the criteria existed for the years 1900-1960.

Role of Health Consumers	Ability Preferences & Health Inequities
<ul style="list-style-type: none"> <li>•The literature suggests that the health consumer is poised to become the driving force behind future health care development in terms of both service and delivery (5).</li> <li>•There appears to be varying levels of health consumerism and health consumerism can be realized for self-care, advocacy, and autonomic purposes (6).</li> <li>•Health consumers on the far right of the spectrum appear to be pushing towards new paradigms of conceptualizing not only health care, but health itself (7,8).</li> </ul>	<ul style="list-style-type: none"> <li>•Health consumers were outlined as requiring various physical, cognitive, financial, and social abilities.</li> <li>•Health literacy in particular was identified as a major contributor to gaps between health consumerism levels.</li> <li>•The abilities required for health consumerism are all highly interdependent; for example an active role in patient-provider interactions is dependent on an established level of communicative skills such as talking, listening and asking questions, as well as on a base level of health literacy and knowledge (9).</li> <li>•Ability preferences appear to favour young adult to middle aged demographics that are educated, affluent, and tech savvy(10,11).</li> <li>•As the result of the increased trend towards wireless health technology and software, various concerns for the protection and control of private information were identified(12,13).</li> <li>•An expanding number of consumer targeted services and products are being offered, ranging from health information sites, health social networks, and smartphone applications to at home medical test kits and wearable biosensors (14,15).Privatized development and delivery of these technologies implicates the potential for financial access barriers to exist.</li> <li>•The level of health consumerism that can be realized by patients for self-care, advocacy, and autonomic purposes is restricted by ability preferences (16,17). Health consumers on the far right of the spectrum appear to be pushing towards new paradigms of conceptualizing not only healthcare, but health itself, whereas those on the left remain restricted within the passive patient role created by traditional healthcare interactions (18). For example, within the literature the notion of the quantified self was identified as evolving out of health consumers on the right of the consumer spectrum(18). This notion is based off the technology enabled generation of personal health data by health consumers, which is then used to track their health as well as conduct consumer run research trials; the quantified self movement was identified as shifting an individual's perspective of their health from an internal locus to an external viewing platform(45)(46).</li> </ul>

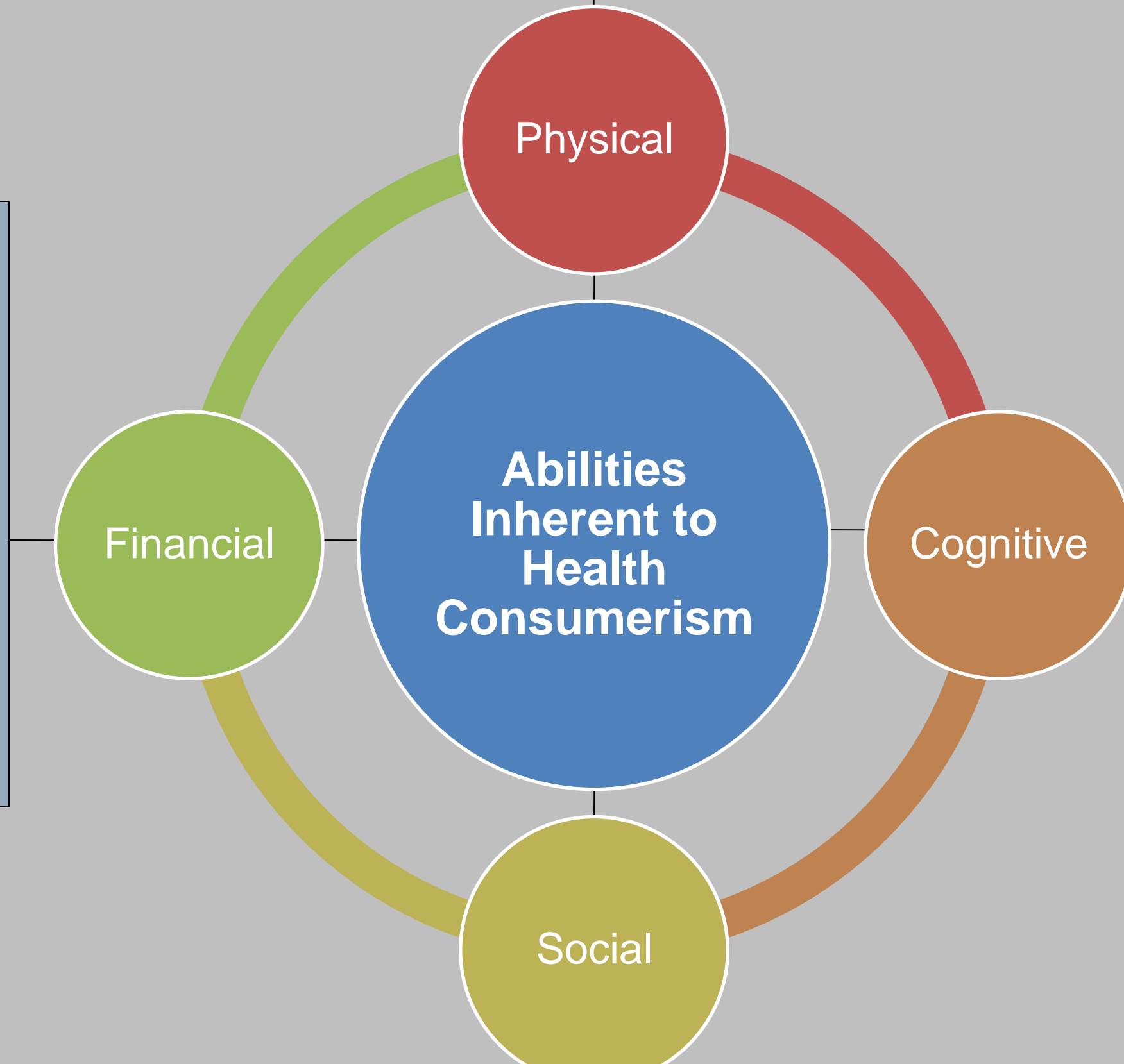


- Communicative: Talking, listening
- Vision
- Tactile, to interact with and use health consumer technologies
- Young to middle aged favoured

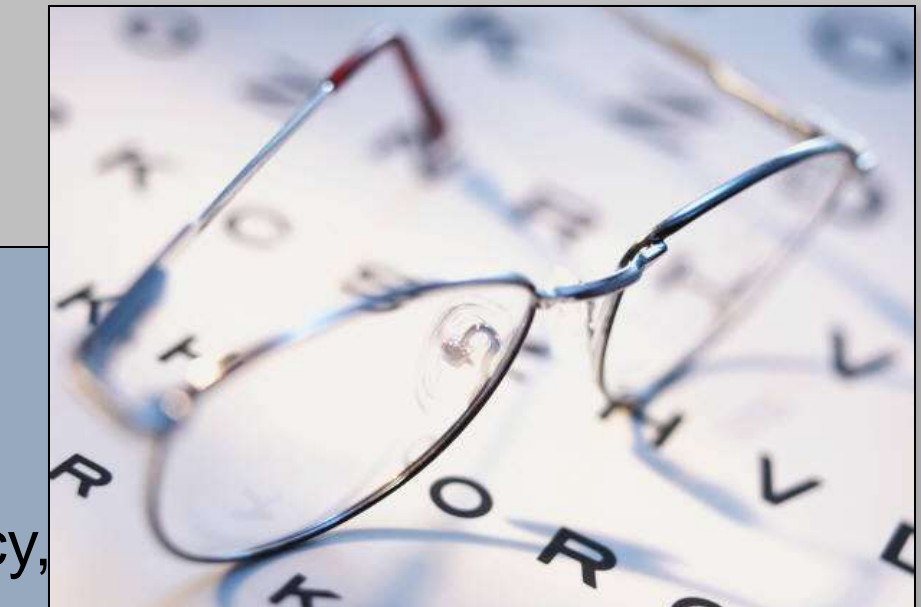


- Affording health consumer technologies— mostly privately Developed and offered.
- Access to choice in healthcare products and services

•Educated, affluent, and tech savvy favoured



- Enhanced health knowledge
- Understand and interact with health information
- Communication skills: advocacy, interpretation, questioning
- Problem solving
- Self awareness
- Health literacy



- Active and equal role in the patient-provider partnership
- Challenging traditional patient-provider roles
- Empowerment or a sense of control over health and healthcare decision making
- Connections to other health consumers



## Conclusions:

Health consumerism has largely developed based on an emphasis on individual empowerment through knowledge, control, and autonomy. The attainment of knowledge, control, and autonomy within a health care setting as the transition from patient to consumer within healthcare takes place, marks a shift in patient power, roles, and expected abilities. The abilities inherent within health consumerism can create barriers for individuals who either do not possess these abilities or who do not want to participate in this style of healthcare interaction. Should the health consumerism movement continue to grow and develop, individuals such as these will likely experience isolation and diminished health states.

Future research is needed to explore health consumer acceptance and practical implementations. In particular the impact of health consumerism on the health outcomes of different groups and the minimization of access and literacy gaps need to be explored.

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