

## Measurement Challenges for Oral Health Literacy

Kathryn Atchison, DDS, MPH

Vice Provost, New Collaborative Initiatives  
Professor, UCLA Schools of Dentistry and Public  
Health

November 4, 2014

## Four brief questions to guide the discussion:

- What is Health Literacy: A moving definition.
- What do we want a HL measure to tell us about our patient/population?
- The Chicken and the Egg Phenomenon: How does past receipt of dental care impact the response to the HL measure, and vice versa?
- In what populations & settings may/should HL be measured?

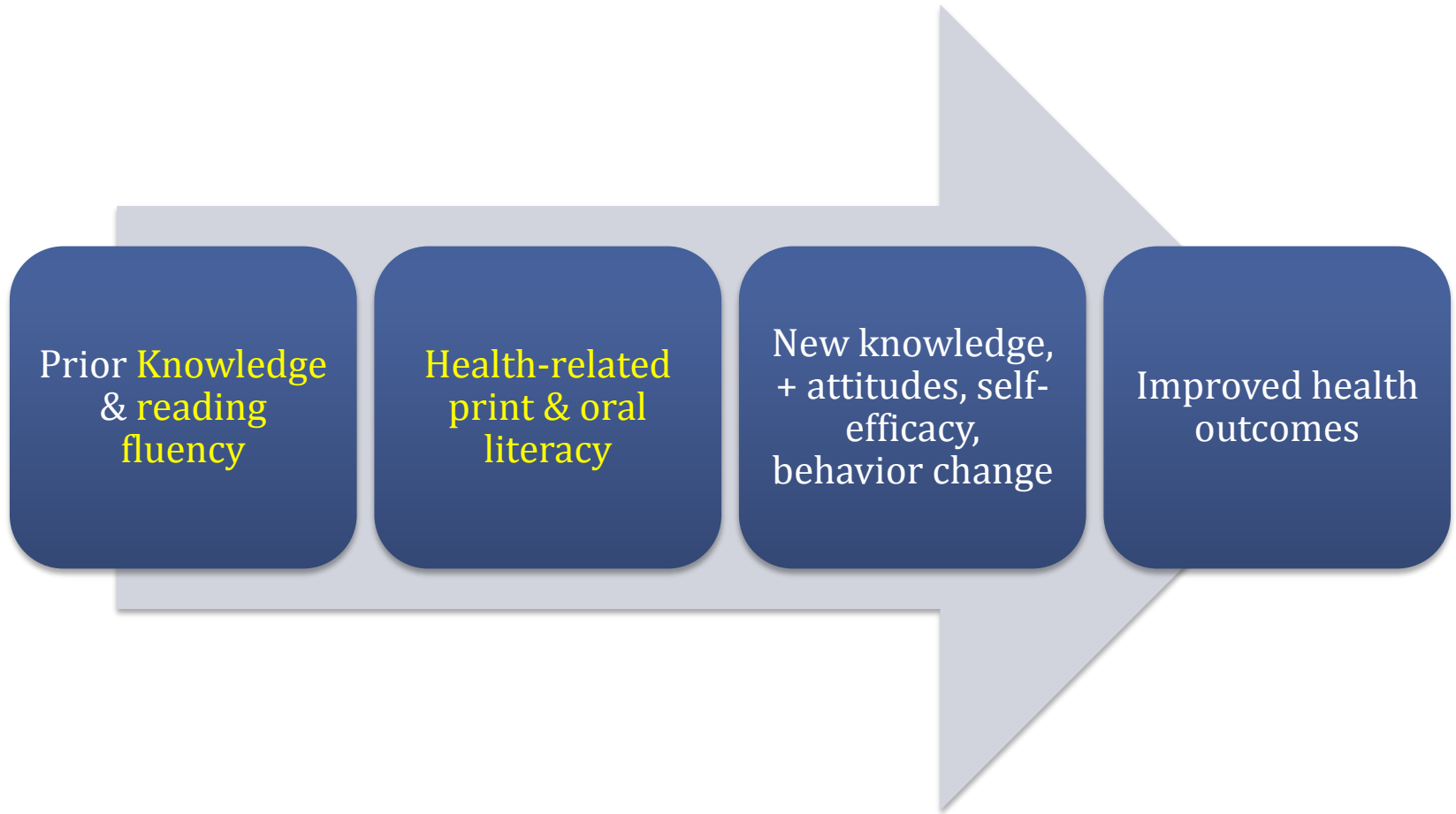
## **What is Health Literacy: A moving definition.**

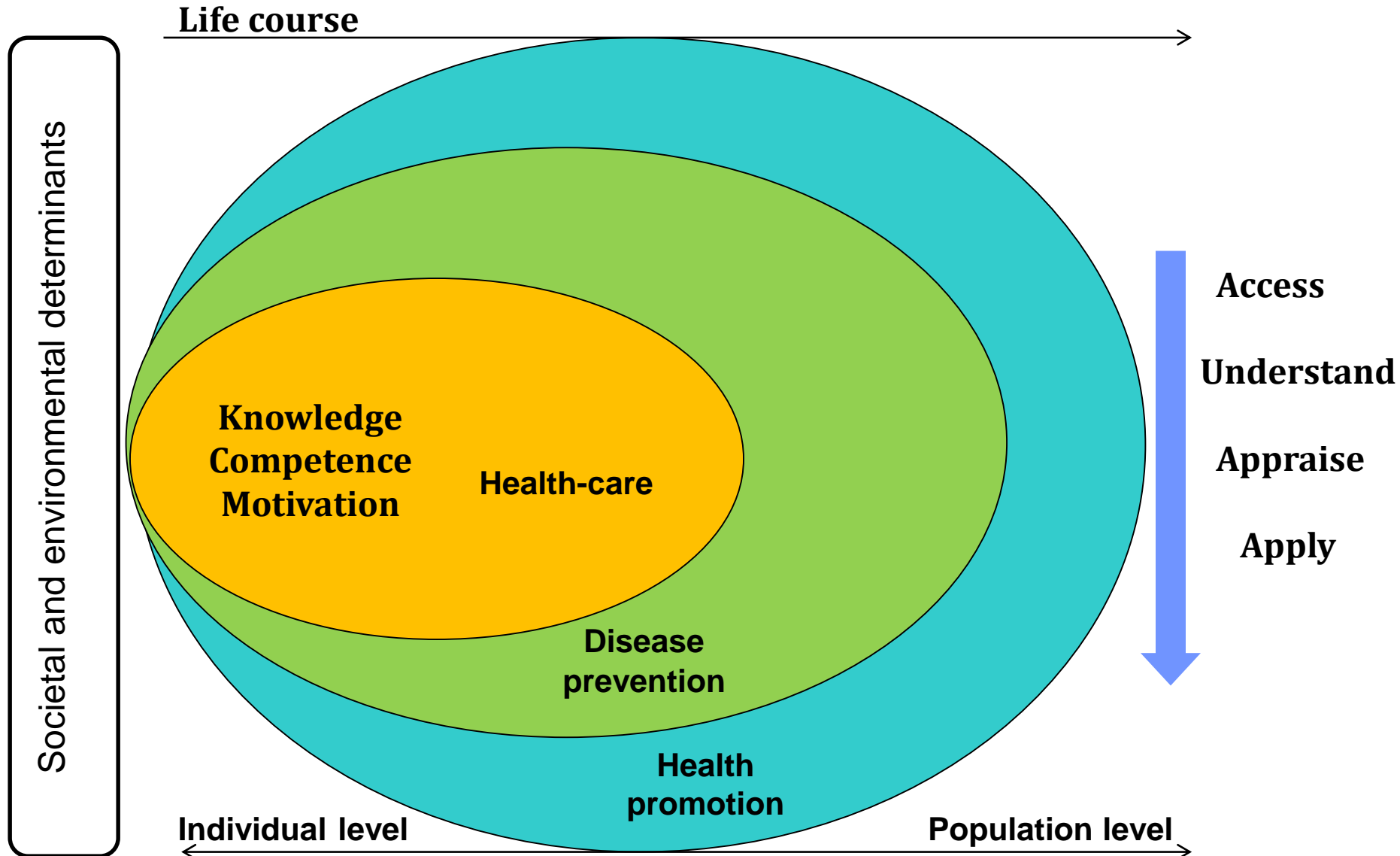
- Functional understanding of patient's capacity?
- A model to assess the public's health?
- Organizational capacity?
- Research to better understand the health care system and people's use of it?

## What is Health Literacy?

- “the degree to which **individuals** have the **capacity** to **obtain, process, and understand** basic health information and services needed to make appropriate health decision” (HP 2010)
- “a constellation of **skills**, including the ability to **perform** basic reading and numerical task required to function in the health care environment” (AMA)
- HL “allows the **public and personnel** working in all health-related contexts to **find, understand, evaluate, communicate, and use information**” (Calgary Charter on HL)

## **Simplified Baker model of Individual Capacity (JGIM 2006)**





## **What is health literacy: *National Action Plan to Improve Health Literacy***

- Engages “organizations, professionals, policymakers, communities, individuals, and families in a linked, multisector effort to improve health literacy”
- Based on two principles 1. everyone has the right to health information that helps them make informed decisions, and 2. health services should be delivered in ways that are understandable and beneficial to health, longevity, and quality of life.

## Yet, how do we measure it?

- Word Recognition
- Reading comprehension
- Evaluation of risk
- Arithmetic competency
- Combination of the above.



## What do we want the HL measure to tell us about our patient/population?

### Subject's Understanding of Terms

- Health promotion & prevention
- Navigation of the health care system
- Risk of disease

### Subject's Characteristics

- Beliefs
- Enabling Education
- Culture

## People are complex beings with a range of characteristics and skills

- Adult Victorian sample in Australia (n=310)
- % < Adequate health literacy
  - REALM 10.6%
  - Newest Vital Sign 26.0%
  - TOFHLA 6.8%
- Conclusion: HL “**measures, while moderately correlated, appear to measure different but related constructs...**”

Barber et al. Health Promotion International, 2009

## The Chicken and the egg phenomenon

- Role of Patient's past receipt of care (e.g. Doctor told you had Periodontal disease; Having an extraction)
- Association between education, utilization, HL
- Link between literacy (healthcare vocabulary) and knowledge (concepts)

## The Chicken and the egg phenomenon

	<b>Combined Enabling &amp; Behavior</b>	<b>Beliefs &amp; Attitudes</b>	<b>Combined Need &amp; Utilization</b>
REALD-30 was lower for people who	Did not own a toothbrush or didn't brush daily	Believe teeth should be brushed 0-1 daily	Visited dentist for problem

Parker & Jamieson

## **The Chicken and the egg phenomenon: No HL measure works for all of these questions.**

- Are disease specific measures or a general health knowledge measure better?
- Is knowledge an outcome measure or intermediate goal so providers understand peoples' learning needs?

## What is Health Literacy? (KAA)

- A multifaceted concept that examines:
  - How an **individual** has the capacity, will, and opportunity to maintain their health and receive appropriate care
  - Within an **organization** structure that encompasses formal and informal messages and services
  - Delivered by a variety of **professionals** with varying skills, and competing interests.

## Equivalency across diverse (vulnerable) populations

- Need appropriate methods to evaluate measurement equivalence across diverse patient groups.
- Are we measuring English competence, education level, or health literacy?
- Should HL dictate that materials be available in all languages appropriate for the patient population?



Education



Patient Care



Research



Service

[Home](#) > [How to Become a Patient](#)

## PATIENT CARE

[Patient Care Overview](#)[Current Patients](#)[Become a Patient](#)[New Patient Forms](#)[Levels of Care](#)[Specialized Clinics](#)[Grateful Patients](#)[FAQs](#)[Services We Offer](#)[Faculty Group Practice](#)[Directions & Parking](#)

## HOW TO BECOME A PATIENT

Caring for your teeth and mouth is vital to maintaining your overall health and appearance. Even if you brush and floss regularly, you still need to receive professional care on a regular basis to maintain good oral health. Make the UCLA Dental Clinics and their affiliated clinics your dental home where all your dental needs can be addressed.

If you are trying to make an appointment at the [UCLA Faculty Group Dental Practice](#), please call (310) 794-5750.

The UCLA Dental Clinics in Westwood and the UCLA Venice Dental Center are the patient care branches of the UCLA School of Dentistry. Since we are an educational institution, a number of our procedures and policies differ from a private practice. While patient care is always our foremost concern, we are equally responsible for the education and training of our students and residents.

### Step #1: Make an Appointment

If you are interested in becoming a patient at one of our General Clinic locations or any one of our



## Summary

- Get beyond basic patient demographics to understand culture.
- Consider studies with a diverse and adequate sample size to answer fulsome questions.
- Utilize definitions & models that include the provider/setting and patient in order to understand the implications behind the results.
- Develop a Research Agenda for Oral health literacy
- This could be the best thing since 'sliced bread'.

