

# Quantifying Long Term Care Preferences

Jing Guo, PhD, American Institutes for Research

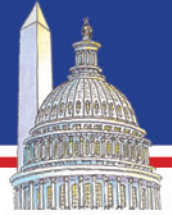
R. Tamara Konetzka, PhD, University of Chicago

Elizabeth Magett, MPA, University of Chicago

William Dale, MD, PhD, University of Chicago

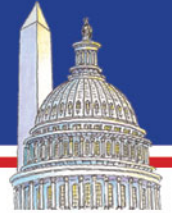
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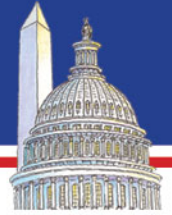
# Background

- Current policies redirecting long-term care (LTC) delivery away from institutional care to home- and community-based services are being made in the absence of crucial evidence on preferences.
- Studies indicate that the shift to home care is generally not cost-saving (Guo et al., 2014<sup>1</sup>; Kemper, 1988)
- Empirical assessment of effectiveness is needed to evaluate policies incenting home care investment .



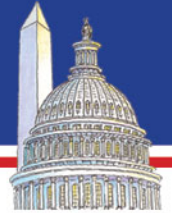
# Background

- Older adults' LTC preferences have been widely discussed qualitatively. (Wolff et al., 2008; Eckert et al., 2004)
- However, it is difficult to translate results of previous studies into useful information for LTC policymaking.
  - Never been quantified
  - Value of choice: too young or LTC experience



# Study Aims

- Formally quantifies LTC preferences between different delivery modes using standard tools of economic evaluation
- Enable comparison of effectiveness across LTC options to support efficient resource allocation

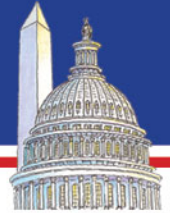


# Methods

- Modified Time Trade-off (TTO) method for LTC (Guo et al., 2014<sup>1</sup>)
- Measurement unit: quality of life (QOL) weights, anchored at 1 (full or “perfect” health) and 0 (dead).
- Two relevant LTC settings: nursing home (NH) care and home-based care (HC).
- 6 different health scenarios reflecting varying levels of functional and cognitive impairment, which are the classic health states signaling the need for LTC.



Health States	Description of Health State	
	Functional Impairment	Cognitive Impairment
	Cannot do the following without the assistance of at least one person:	
<b>Condition 1</b>	1) Bathing: need help with bathing more than one part of the body, getting in or out of the tub or shower.	None
<b>Condition 2</b>	Need help with [2 ADLs] at the same time, includes 1) from condition 1 and:	None
	2) Dressing: need help with dressing self or needs to be completely dressed.	
<b>Condition 3</b>	Need help with [3-4 ADLs] at the same time, includes all from Condition 2 and:	None
	3) Toileting: Need help transferring to the toilet, cleaning self or uses bedpan or commode.	
	4) Transferring: Needs help in moving from bed to chair or requires a complete transfer.	
<b>Condition 4</b>	Need help with [5 ADLs] at the same time, includes all from Condition 3 and:	None
	5) Continence: Is partially or totally incontinent of bowel or bladder.	
<b>Condition 5</b>	Need help with [5 ADLs] at the same time, same with Condition 4	Mild to moderate dementia
<b>Condition 6</b>	Need help with [6 ADLs] at the same time, includes all from Condition 4 and:	Moderate to severe dementia
	6) Feeding: Needs partial or total help with feeding or requires tube feeding.	



# Methods

## Sample TTO Question (Health Condition 1):

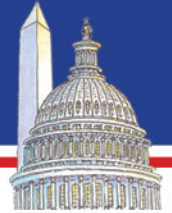
“First, imagine that your own health requires that you get somebody to help you ***bathe*** every day. You can still do all other things by yourself, but only need help with bathing

“Now, suppose that you can either live for 10 more years in that condition in a ***nursing home***, or you can live just one more year in perfect health.

- What would you pick? – 1 more year in perfect health or 10 more years living in a nursing home and needing help each day to bathe? If not, then how about 2 years in perfect health? (increase the number of perfect health year until they say yes or reach equivalence at 10)

“Okay, now consider the same health situation except that you are living at your own house and receiving ***home care*** (where trained staff would come in to your home) to help with your bathing.

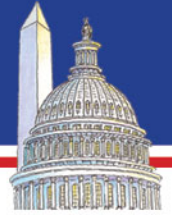
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# Methods

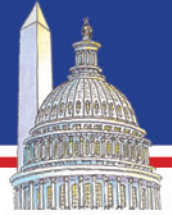
- Each participant answered the TTO questions across the 12 clinical scenarios (2 LTC settings x 6 health states)
- First calculated utility scores under each scenario
- Quantify LTC preference by differential utilities between the two LTC settings under same health condition





# Data Collection

- Utility data were collected at a general geriatrics clinic, the South Shore Senior Center on Chicago's south side, from May to August, 2013.
- “Informed community values” perspective — individuals “at short-term risk” of needing LTC: age 55 +, and having already thought about their own LTC
- Excluded:
  - 1) experienced any type of formal LTC;
  - 2) dementia or on medication for memory impairment;
  - 3) poor health when they took the survey.



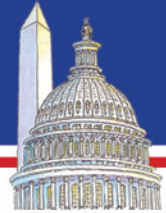
# Results

- 81 cases in the final sample;
- Sample characteristics:
  - average age: 74.5
  - 84% female
  - 84% African American
  - 32% bachelor's degree or higher.
  - 95% covered by Medicare and/or Medicaid
  - Other demographics: marital and residential status, family composition, income level, health status.

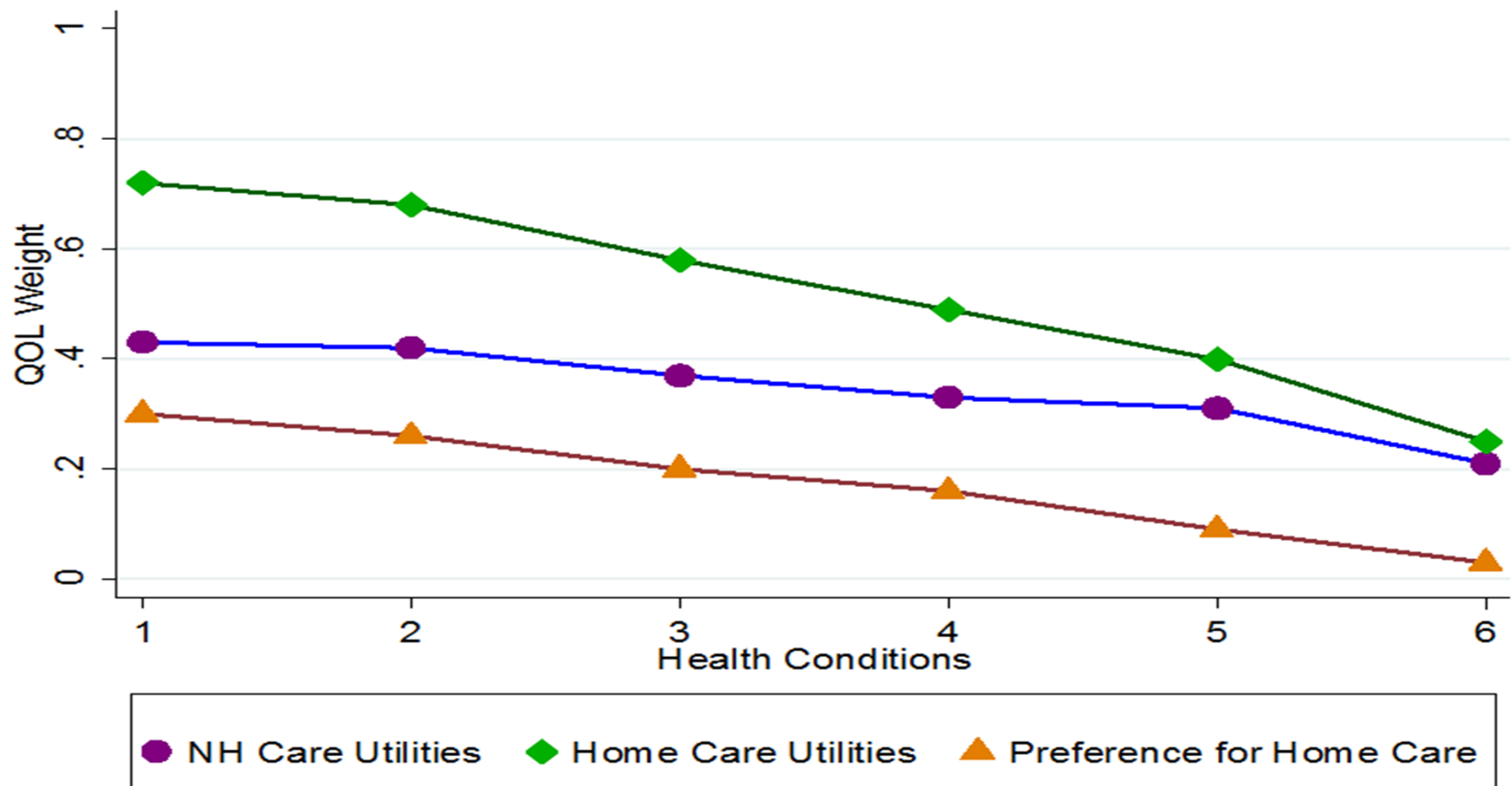


# Results

Health Condition	QOL of Nursing Home	QOL of Home Care	Preference for Home Care( $\Delta$ QOL)	
			Mean	t-test (P-value)
1	<b>0.43</b>	<b>0.72</b>	<b>0.30</b>	<b>&lt;0.01</b>
2	<b>0.42</b>	<b>0.68</b>	<b>0.26</b>	<b>&lt;0.01</b>
3	<b>0.37</b>	<b>0.58</b>	<b>0.20</b>	<b>&lt;0.01</b>
4	<b>0.33</b>	<b>0.49</b>	<b>0.16</b>	<b>&lt;0.01</b>
5	<b>0.31</b>	<b>0.40</b>	<b>0.09</b>	<b>&lt;0.01</b>
6	<b>0.21</b>	<b>0.25</b>	<b>0.03</b>	<b>0.10</b>



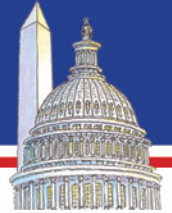
# Results





# Results

- When people only need help with 1-2 ADLs, the preference for home care over NH care is strong;
- $\Delta QOL = 0.30$  (condition 1) translates into a gain of \$15,000-\$30,000 per year if the value of a quality adjusted life year (QALY) is set at \$50,000-\$100,000.
- However, the preference for home care over NH care declines substantially with greater levels of disability
- $\Delta QOL = 0.03$  when patients suffer a combination of severe physical and cognitive impairments.



# Policy Implications

- LTC preferences vary by health conditions;
- People do not consistently prefer HC as usually assumed;
- In order to provide the most cost-effective care, the specific target population should be identified for different LTC options.



# Future study

- Large and more generalized sample
- Precise evidence of other factors of LTC preferences
- Caregiver utilities



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# Questions

Corresponding Author: Jing Guo

Email: [jguo@air.org](mailto:jguo@air.org)

Web: [www.air.org/person/jing-guo](http://www.air.org/person/jing-guo)

# Thank you!