



VCU

Virginia Commonwealth University
VCU Scholars Compass

Psychology Publications

Dept. of Psychology

2017

Knowledge and understanding of health insurance: challenges and remedies

Andrew J. Barnes

Virginia Commonwealth University, abarnes3@vcu.edu

Yaniv Hanoch

Plymouth University

Follow this and additional works at: http://scholarscompass.vcu.edu/psyc_pubs

 Part of the [Psychology Commons](#)

© The Author(s). 2017 Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated.

Downloaded from

http://scholarscompass.vcu.edu/psyc_pubs/39

This Article is brought to you for free and open access by the Dept. of Psychology at VCU Scholars Compass. It has been accepted for inclusion in Psychology Publications by an authorized administrator of VCU Scholars Compass. For more information, please contact libcompass@vcu.edu.

COMMENTARY

Open Access



Knowledge and understanding of health insurance: challenges and remedies

Andrew J. Barnes^{1*} and Yaniv Hanoch²

Abstract

As coverage is expanded in health systems that rely on consumers to choose health insurance plans that best meet their needs, interest in whether consumers possess sufficient understanding of health insurance to make good coverage decisions is growing. The recent *IJHPR* article by Green and colleagues—examining understanding of supplementary health insurance (SHI) among Israeli consumers—provides an important and timely answer to the above question. Indeed, their study addresses similar problems to the ones identified in the US health care market, with two notable findings. First, they show that overall—regardless of demographic variables—there are low levels of knowledge about SHI, which the literature has come to refer to more broadly as “health insurance literacy.” Second, they find a significant disparity in health insurance literacy between different SES groups, where Jews were significantly more knowledgeable about SHI compared to their Arab counterparts.

The authors’ findings are consistent with a growing body of literature from the U.S. and elsewhere, including our own, presenting evidence that consumers struggle with understanding and using health insurance. Studies in the U.S. have also found that difficulties are generally more acute for populations considered the most vulnerable and consequently most in need of adequate and affordable health insurance coverage.

The authors’ findings call attention to the need to tailor communication strategies aimed at mitigating health insurance literacy and, ultimately, access and outcomes disparities among vulnerable populations in Israel and elsewhere. It also raises the importance of creating insurance choice environments in health systems relying on consumers to make coverage decisions that facilitate the decision process by using “choice architecture” to, among other things, simplify plan information and highlight meaningful differences between coverage options.

Keywords: Choice architecture, Health insurance, Literacy, Numeracy

Main text

A major policy drama is taking place in the US where the government is in the process of deciding whether to repeal and replace the ACA (better known as Obamacare). The program, among other things, offers health coverage for millions of Americans who have never held or purchased health insurance in their lives and is the reason for the historically high rates of insurance coverage in the US currently. Despite these successes in coverage expansion, many consumers—especially minorities and low SES individuals—have limited knowledge about the nature and terminology of health insurance [1], with growing indication that consumers are having difficulty in

purchasing insurance plans that offer them adequate risk protection [2]. Obamacare, however, is not unique in facing this problem. An earlier US coverage expansion, known as Medicare part D, which offers standalone prescription drug coverage to (mainly) older adults, has exposed similar patterns. Indeed, empirical studies and secondary data analysis have repeatedly shown that beneficiaries do not have full command of the program and often, for example, focus on premiums rather than total expected cost leading to higher overall costs [3].

Much of our knowledge about consumers’ understanding of and decisions about health insurance is based on studies from the US health care market. One might wonder, therefore, if these findings are solely endemic to the US, or whether they can be generalized to other countries and populations.

* Correspondence: Abarnes3@vcu.edu

¹Health Behavior and Policy, School of Medicine, Virginia Commonwealth University, 830 E Main St, 9th Floor, Richmond, Virginia 23219, USA
Full list of author information is available at the end of the article



The paper by Green and colleagues—examining understanding of supplementary health insurance (SHI) among Israeli consumers—provides important and timely information about the experience of consumers outside the US [4]. Indeed, their study addresses similar problems to the ones identified in the US health care market, with two notable findings. First, they show that overall—regardless of demographic variables—there are low levels of knowledge about SHI, which the literature has come to refer to more broadly as “health insurance literacy.” Indeed, Green et al. report that less than 50% of the participants could answer questions correctly about the various services covered by SHI (see [4], Table 2), and about a third of the sample indicated that they have never even examined what coverage the SHI offers. Their findings, it might be argued, are slightly more alarming than those typically reported among US participants, as the coverage rates of SHI among participants is rather high (about 77% of the sample). That is, participants’ poor knowledge about SHI did not stem from lack of experience, but from variables that are yet to be investigated.

Green et al.’s second main result shows the existence of a significant disparity in health insurance literacy between different SES groups, where Jews were more knowledgeable about SHI compared to their Arab counterparts. The gap persisted even after controlling for sociodemographic descriptors that might confound the relationship between ethnicity and health insurance literacy (e.g., education, socioeconomic status, SHI ownership), suggesting a critical disconnect between Israelis’ perceptions of what services SHI covers and what services SHI actually covers.

The authors’ findings have empirical support from a growing body of literature, including our own, presenting consistent evidence that consumers struggle with understanding and using health insurance. Studies in the US have found that these difficulties are generally more acute for populations considered the most vulnerable and consequently most in need of adequate and affordable health insurance coverage. Health systems, like Israel’s and many others, which rely heavily on consumers’ ability to choose and use coverage, should be concerned that the populace has sufficient levels of health insurance literacy to understand the structure of health benefits and basic cost-sharing concepts well enough to make effective choices [5].

To understand the pervasive lack of health insurance literacy among many populations and the implications of this deficit on consumers’ ability to choose and use health insurance, consider again the US, where most of our research on this topic has been conducted. More than half of the US adult population lacks the facility with mathematics essential to understand health insurance information [6].¹ Previous studies have shown that insured people do not understand key insurance terms,

risk, and the likely out-of-pocket costs when they experience an illness, nor do they understand what is and is not covered by their insurance plans [7–9].

Limited understanding of health insurance is particularly acute among low-income and otherwise disadvantaged populations [2, 8–10]. Several studies demonstrate that poor health insurance literacy results in people making unambiguously bad choices for themselves, leading to excess medical spending, with older and lower income individuals worst off [11, 12]. Similarly, Green et al. emphasize that Arab populations in Israel, whom they showed to have lower health insurance literacy, tend to be in poorer health and have lower income, less education, and worse access to health care when compared to Jews living in Israel, contributing to the “inequality in the (Israeli) health system” [4]. Importantly, Green et al.’s results provide preliminary evidence supporting ethnicity as a unique marker for low health insurance literacy among Israelis even after controlling for socioeconomic status, education, and access to health care.

While the work of Green et al. makes an important contribution to the literature, the next phase of this line of inquiry should, we believe, focus on addressing low levels of health insurance literacy generally and among more vulnerable populations specifically. Needless to say, no magical formula exists that can easily solve this complex problem. However, our own research and that of others has highlighted three possible avenues. First, policymakers and supplementary health insurance funds should ensure that SHI information (e.g., leaflets) is presented and communicated in a range of languages and in a simplified way (e.g., avoiding technical terms), such that individuals from all sections of the population can read and understand it. SHI funds, for example, can imitate the way health care providers have tailored information to effectively communicate with patients and developed a shared decision-making model [13]. Second, SHI funds can improve the SHI decision environment. Better known as choice architecture, a growing body of research—largely inspired by the emerging field of behavioral economics—has devoted much effort and time to examining ways to improve the decision environment in which consumers operate. Some options to do so that payers can utilize include: reduce the number of SHI options consumers face, present choices in order of price and/or quality, create defaults, use symbolic representation, and standardize coverage options [14]. Third, SHI funds can coordinate with Arab community groups to target outreach and tailor SHI enrollment and education campaigns to improve how these populations understand and use health care coverage. These are some promising mechanisms that have been identified previously. Future research would need to evaluate their feasibility and appropriateness to the SHI market in Israel, and possibly develop novel ways to address the problem.

Conclusions

When there is a mismatch between health care needs and plan choices resulting from poor health insurance literacy, consumers may not have adequate risk protection to cover their expected health care needs or they may purchase unnecessary coverage. Green and colleagues' important findings add to a growing literature on health insurance literacy, most of which concludes that consumers do not understand key health insurance terms and have difficulty aligning what they want in an insurance plan with what they choose [15]. The authors' findings call attention to the need to tailor communication strategies aimed at mitigating health insurance literacy and, ultimately, access and outcomes disparities among vulnerable populations in Israel and elsewhere. It also highlights the importance of creating choice environments that facilitate the decision process, referred to as "choice architecture," in health systems relying on consumers to make coverage decisions. Indeed, our own work has revealed that participants with both high and low health insurance literacy benefit from simplifying coverage choices by equal amounts. However the magnitude of this effect represented a larger relative increase among participants with lower health insurance literacy given the disadvantage with which these participants came to the coverage choice environment [16].

Endnotes

¹Numeracy and literacy levels among Israeli adults are below OECD average (see <http://www.oecd.org/skills/piaac/Skills-Matter-Israel.pdf>). As such, there is little reason to believe that the results from the US would be dramatically different.

Abbreviations

SHI: Supplementary health insurance; US: United States

Acknowledgements

N/A.

Funding

N/A.

Availability of data and materials

Materials by the authors cited in this review as "under review" can be obtained from Andrew Barnes by contacting him at abarnes3@vcu.edu.

Authors' contributions

Both Drs. Barnes and Hanoch contributed equally to drafting this commentary.

Ethics approval and consent to participate

N/A.

Consent for publication

N/A.

Competing interests

The authors declare that they have no competing interests.

Author details

¹Health Behavior and Policy, School of Medicine, Virginia Commonwealth University, 830 E Main St, 9th Floor, Richmond, Virginia 23219, USA. ²School of Psychology, Plymouth University, B204, Portland Square, Drake Circus, Plymouth, Devon PL4 8AA, UK.

Received: 20 June 2017 Accepted: 3 July 2017

Published online: 13 July 2017

References

- Loewenstein G, Friedman JY, McGill B, Ahmad S, Linck S, Sinkula S, Beshears J, Choi JJ, Kolstad J, Laibson D, Madrian BC, List JA, Volpp KG. Consumers' misunderstanding of health insurance. *J Health Econ*. 2013;32(5):850–62.
- Politi MC, Kaphingst KA, Kreuter M, Shacham E, Lovell MC, McBride T. Knowledge of health insurance terminology and details among the uninsured. *Med Care Res Rev*. 2014;71:85–98.
- Abaluck J, Gruber J. Choice inconsistencies among the elderly: evidence from plan choice in the Medicare part D program. *Am Econ Rev*. 2011;101(4):1180–20.
- Green MS, Hayek S, Tarabeia J, Yehia M, HaGani N. A national survey of ethnic differences in knowledge and understanding of supplementary health insurance. *Isr J Health Policy Res*. 2017;6:12.
- Paez KA, Mallery CJ, Noel H, Pugliese C, McSorley VE, Lucado JL, Ganachari D. Development of the health insurance literacy measure (HILM): conceptualizing and measuring consumer ability to choose and use private health insurance. *J Health Commun*. 2014;19(Suppl 2):225–39.
- Peters E, Meilleur L, Tompkins MK. Appendix A: Numeracy and the affordable care act: opportunities and challenges. In: *Health literacy and numeracy: workshop summary*. Washington, DC: The National Academies Press; 2014. p. 91–136.
- Cunningham PJ, Denk CD, Sinclair M. Do consumers know how their health plan works? *Health Aff*. 2001;20:59–166.
- Kim J, Braun B, Williams AD. Understanding health insurance literacy: a literature review. *Fam Consum Sci Res J*. 2013;42(1):3–13.
- Paez K, Goldstein J, Ganachari D. Developing a measure of health insurance literacy: understanding consumers' ability to choose and use insurance. Issue brief American Institutes for Research. 2013; http://www.air.org/sites/default/files/downloads/report/Health_Insurance_Literacy_Issues_Brief_2.25.13_0.pdf
- McCormack L, Bann C, Uhrig J, Berkman N, Rudd R. Health insurance literacy of older adults. *J Consum Aff*. 2009;43(2):223–48.
- Bhargava S, Loewenstein G, Sydnor J. Do individuals make sensible health insurance decisions? Evidence from a menu with dominated options. Working Paper 21160, National Bureau of Economic Research. 2015. <http://www.nber.org/papers/w21160>
- Sinaiko AD, Hirth RA. Consumers, health insurance and dominated choices. *J Health Econ*. 2011;30(2):450–7.
- Fagerlin A, Zikmund-Fisher BJ, Ubel PA. Helping patients decide: ten steps to better risk communication. *J Natl Cancer Inst*. 2011;103(19):1436–43.
- Johnson, ER, Shu SB, Dellaert BGC, Fox C, Goldstein DG, Häubl G, Larrick RP, Payne JW, Peters E, Schkade D, Wansink B, Weber EU. Beyond nudges: tools of a choice architecture. *Mark Lett*. 2012;23:487–504.
- Barnes AJ, Hanoch Y, Rice T. Determinants of coverage decisions in health insurance marketplaces: consumers' decision-making abilities and the amount of information in their choice environment. *Health Serv Res*. 2015;50(1):58–80.
- Barnes AJ, Karpman M, Long S, Hanoch Y, Rice T. More intelligent designs: comparing the effectiveness of choice architectures used in us health insurance marketplaces. Under review, 2017.