

## СЕКЦИЯ МЕДИКО-СОЦИАЛЬНЫЕ ПОДХОДЫ К СОХРАНЕНИЮ ЗДОРОВЬЯ И ПЕРВИЧНОЙ ПРОФИЛАКТИКЕ ЗАБОЛЕВАНИЙ

### COMPARING HEALTH STATUS IN BELARUS BETWEEN 2001 AND 2010: A NOVEL METHOD FOR SURVEYS WITH DIFFERENT RESPONSE CATEGORIES

A. Vasianovich<sup>1</sup>, N. W. Scott<sup>2</sup>, W. C. S. Smith<sup>1</sup>, C. D. Wallace<sup>3</sup>,  
L. L. Shebeko<sup>4</sup>

<sup>1</sup> Division of Applied Health Sciences, School of Medicine and Dentistry, College of Life Science and Medicine, University of Aberdeen, UK, [a.vasianovich@abdn.ac.uk](mailto:a.vasianovich@abdn.ac.uk)

<sup>2</sup> Medical Statistics Team, Division of Applied Health Sciences, School of Medicine and Dentistry, College of Life Sciences and Medicine, University of Aberdeen, UK

<sup>3</sup> Department of Sociology, School of Social Science, King's College, University of Aberdeen, UK

<sup>4</sup> Department of General and Clinical Medicine, Educational and Medical Centre, Poleski State University, Pinsk, Belarus

**Keywords:** Health survey, Longitudinal studies, Republic of Belarus

#### Background

Two European Union funded population surveys were conducted in Belarus: The Living Conditions, Lifestyle and Health (LLH) [1] in 2001 (n=2000), and The Health in Times of Transition<sup>2</sup> (HITT) [2] in 2010 (n=1800). Each survey included a question on self-reported health status. The LLH survey provided a 4-point verbal response scale and the HITT survey used a 5-point scale. When translated into Russian, only two response categories had identical wording. The options “bad” from the LLH and “poor” from the HITT were translated as “Плохое”, and “good” from both surveys as “Хорошее”. These differences make a direct comparison of self-reported health status between 2001 and 2010 difficult.

#### Methods

We conducted a further Health Category Response Scale (HCRS) survey of Russian speakers in Belarus, 2010 (n=570). Two questionnaires were developed to correspond to the 4-point LLH and 5-point HITT categories. A 100<sup>th</sup> graduated Visual Analogue Scale (VAS) was designed and included in both questionnaires to understand how the different verbal response categories were perceived. Respondents were randomly allocated one of the questionnaires and asked to assess the strength of the Russian categories. The mean score of each health response category from our HCRS was utilised to calculate the weighted health status (WHS) for the LLH and HITT surveys. This allowed us to compare self-reported health status in Belarus between 2001 and 2010.

#### Results

A small statistically significant increase of 2.9 points on a 0-100 scale ( $p<0.001$ ) in the WHS in Belarus was found between 2001 (56.2, 95% CI=54.8-57.1) and 2010 (59.1, 95% CI=58.2-59.9). Identical response categories were perceived differently on a 4-point and 5-point VAS depending on whether more extreme categories were available. The category “good” (“Хорошее”) measured approximately 12 points higher, and the category “bad/poor” (“Плохое”) measured approximately 16 points lower, on the 4-point compared to the 5-point VAS.

#### Conclusion

Our HCRS survey and method, when applied to the LLH and HITT surveys, concluded that health status in Belarus has improved between 2001 and 2010. This type of method based on a VAS is useful for comparing similar questions with different response category scales and surveys conducted in different languages.

#### References:

1. The Living Conditions, Lifestyle and Health (LLH) Project. About Living Conditions, Lifestyle and Health. Available at: [http://www.llh.at/llh\\_project\\_about.html](http://www.llh.at/llh_project_about.html)
2. Health in Time of Transition Project. HITT-CIS. Press and Downloads. Press Release: New study on trends in population health in neighbouring EU countries. Available at: <http://www.hitt-cis.net>