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Themed Section: Evolution of EuroQoL

The EQ-5D and the EuroQoL Group



We are pleased to be able to introduce a series of articles that reflect the current research focus and interests of the EuroQoL Group. The EuroQoL Group was formed in 1987 by a small group of academics (primarily health economists) from the United Kingdom, the Netherlands, and other European countries with a shared interest in measuring and valuing health. Since then, it has developed into an organization that is global in scope, with a nonprofit foundation that supports the educational and research mission of the group and an association of almost 100 scientific members from 30 different countries.

The articles in this themed section are intended to provide an update or current review of several areas of the group's research activity. Although the group established much of its research around the generic measurement and valuation of health, that is, not focused on specific conditions or subgroups/populations, the scope of research activities conducted by the group has continued to progress with the field. With the expansion of the original EQ-5D health self-classifier from 3 levels to a new classifier with 5 levels, the group invested in a body of research designed to improve methods of valuation. Research projects explored different aspects of time trade-off (TTO), especially the challenge of valuing states worse than dead and ways to operationalize it. In parallel, the potential role of discrete choice experiments to augment or replace TTO was explored. As the articles reveal, striking a balance between innovative methods and providing a standardized approach to health valuation is a constant challenge. Standardized formats can facilitate data collection and ensure data quality, all in an effort toward better practices in health valuation around the world, particularly by researchers in countries with limited experience in the field.

Stolk et al¹ present an overview of the current practice in valuation research—the process of generating scoring weights for the measure. This valuation protocol forms the basis for current practice involving EQ-5D studies throughout the world. The TTO method remains at the heart of the valuation approach, but despite efforts toward improving the method, some substantial problems remain. It is fundamentally a difficult task for people to complete, and data quality can be dependent on skilled interviewers and quality control procedures. The recent data that have been collected may be as good as TTO can be and perhaps leave us with the question, “As a valuation method, is it good enough?”

The research direction of the EuroQoL Group is established by the Executive Committee, which delegates research initiatives to members in working groups, some of which are supported by special interest groups. Although working group initiatives are not mutually exclusive, they are organized into areas of focus that include valuation methods, child health, applications to health systems and populations, and development of descriptive systems. Kreimeier and Greiner² report a detailed update on the development of the EQ-5D-Y—the measure specifically designed for children. Measuring and valuing health in children raises a series of technical

issues that the group has been working on. Functional status and maturity of children change as they grow up, but this does not mean that younger children are in a suboptimal health state. The valuation of child states also presents some difficult challenges. Kreimeier and Greiner² provide some details of the proposed approach to the valuation of child health that requires participants to imagine themselves as a child. In the future, as these values are applied in cost-effectiveness analyses, it is important that decision makers reflect on the possible impact of these different valuation approaches on the resultant cost-effectiveness ratios.

Although the expansion to 5 dimensions was a step toward greater measurement precision related to the core dimensions, there is also the issue of the breadth of content coverage by the EQ-5D. Toward these ends, “bolting on” additional dimensions to the core 5 dimensions has been explored for a number of years, including in vision, hearing, sleep, and other specific health problems.³ It does raise issues. Adding dimensions to the EQ-5D may set up framing effects that have an impact on people's responses to and valuations for the other dimensions. Here Finch et al⁴ report a study that is designed to explore this use of valuation methods to understand the influence of additional dimensions on weights. Bolt-on research is of considerable interest to the EuroQoL Group, but there are many questions and issues to address regarding the impact that bolt-on versions have on decision making.

There is considerable interest still in undertaking valuation research in countries around the world. The 5-level EQ-5D weights exist for most of the major health technology assessment (HTA) markets, but there is still a lot of work to do. Providing a local valuation set for the EQ-5D is an important contribution that the EuroQoL Group can provide to support the growth of HTA methods in that country. The need for efficient resource allocation is greater in low- and middle-income countries than it is in developed nations. But the costs of this research are substantial. One way to reduce the costs potentially is through smaller, more efficient designs that would allow value sets to be modeled on the basis of fewer participants. Yang et al⁵ explore these issues in an interesting article on small designs. It is clear, however, that small designs may work from a statistical perspective but valuation research may also reflect the society's views. This requirement limits how small the sample sizes can become.

The development of the 5-level EQ-5D has necessitated the development of new scoring weights through valuation research and also through crosswalk mapping. Yang et al⁶ report their research that has explored the comparability of these 2 methods in a cost-effectiveness model of treatments in peritoneal dialysis and hemodialysis. The authors contrast different combinations of utilities and identify some important effects on the resultant cost-effectiveness ratio. This leads them to conclude that utilities from new valuation studies cannot be used interchangeably with

utilities based on the crosswalk without there being a potential impact on the cost-effectiveness findings.

Finally, Brazier et al⁷ describe the future challenges that exist for valuation research. The limitations of the EQ-5D as a measurement tool are described and the authors present ideas around a new agenda for health state measurement and valuation that has the potential to work across health and social care sectors. A global research program is underway—centered in Sheffield, UK—to develop a novel measure that reflects health, well-being, and other factors. This research is a funding collaboration between UK's Medical Research Council, the National Institute for Health and Care Excellence, and the EuroQol Group.

These articles represent a snapshot of some of the current initiatives undertaken by the EuroQol Group. They are, however, by no means comprehensive and may represent only 1 aspect of a multifaceted issue or topic. Furthermore, the topics covered examine issues that are certain to be dynamic. Healthcare and HTA policies change, and the field of health measurement and valuation continues to evolve alongside. The importance of understanding the local and global direction of policy is recognized by the group, and is at the heart of the mission of the collection of diverse internationally based scientists who are its members.

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REFERENCES

1. Stolk E, Rand K, Ludwig K, Van Hout B, Ramos-Goni J. Overview, update and lessons learned from the international EQ-5D-5L valuation work: version 2 of the EQ-5D-5L valuation protocol. *Value Health* 2019;22(1):23–30.
2. Kreimeier S, Greiner W. EQ-5D-Y as a health-related quality of life instrument for children and adolescents—the instrument's characteristics, development, current use and challenges of developing its value set. *Value Health* 2019;22(1):31–7.
3. Yang Y, Rowen D, Brazier J, Tsuchiya A, Young T, Longworth L. An exploratory study to test the impact on three “bolt-on” items to the EQ-5D. *Value Health* 2015;18(1):52–60.
4. Finch A, Brazier J, Mukuria C. Selecting bolt-on dimensions for the EQ-5D: examining their contribution to health-related quality of life. *Value Health* 2019;22(1):50–61.
5. Yang Z, Luo N, Bonsel G, Busschbach J, Stolk E. The effect of health state sampling methods on model predictions of EQ-5D-5L values: small designs can suffice. *Value Health* 2019;22(1):38–44.
6. Yang F, Devlin N, Luo N. Cost-utility analysis using EQ-5D-5L data: does how the utilities are derived matter? *Value Health* 2019;22(1):45–9.
7. Brazier J, Rowen D, Lloyd A, Karimi M. Future directions in valuing benefits for estimating QALYs: is time up for the EQ-5D? *Value Health* 2019;22(1):62–8.