

Development of pediatric health utility tool in Japan

Ruoyan Gai

Chief of Division of Policy Evaluation
National Center for Child Health and Development

In the panel, Ruoyan Gai will present ongoing studies to elicit preferences on different health states from adolescents for the Japanese version of the CHU9D, and provide an insight on health financing for pediatric care.

Pediatric care in epidemiological transition

- Reduced mortality and acute severe diseases in childhood
- Long-term care for congenital and pediatric chronic diseases: facility-based care, informal care at home
- Transition from pediatric to adult care
- QOL of pediatric patients and the spill-over effect to their families
- Life-style related diseases and behavioral & mental problems in childhood and long-term impacts in adulthood

✓ Evidence for resource allocation (e.g., reimbursement in health insurance, public subsidies)

Refining methodologies to evaluation pediatric health outcomes

- **Development of Child Health Utility 9 Dimensions (CHU9D) Japanese version**
- Discrete Choice Experiment (DCE) to capture health and non-health outcomes
- Projection of long-term impacts on non-communicable disease burden in adulthood

Technical limitations to exactly calculate Quality Adjusted Life Years (QALYs) among young children

- Limited cognitive ability to report and state their health by using abstract concepts in typical methods such as TTO, SG and VAS
- Necessary of child-friendly and appropriate proxy study tools in Japan



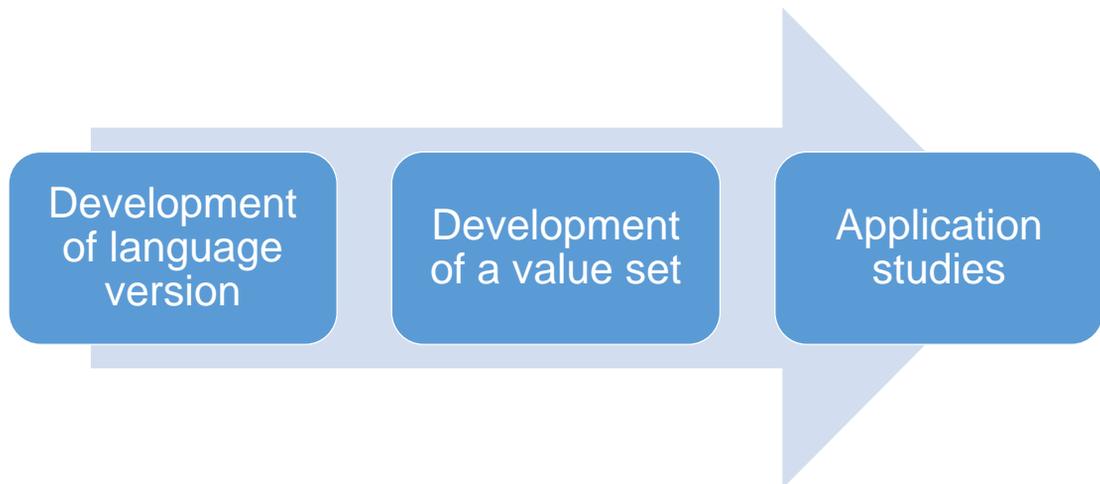
Child Health Utility 9D



Development of CHU9D in Japan

- Development of a value set for CHU9D
- Creating mapping algorithm from PedsQL to CHU9D
- Measuring health utilities of children with severe disabilities

Essential issues raised from the technical process



Development of language version

- A multidisciplinary team may capture various views and experiences
- Cognitive debriefing is influenced by age, schooling and literacy, then age limitation for and exact understanding and self-completion need to be examined
- An open-ended discussion is helpful
- Children with chronic diseases should be specifically considered

Development of a value set

Target population	Adolescents aged 12 to 18	Adult general population
Survey method	A paper-based questionnaire survey targeting students in junior high and high schools randomly selected from the nationwide school list	An online survey targeting adults
Valuation method	BWS-DCE, TTO	DCE, TTO
Sample size	Approximately 800	Approximately 1,000

- Target population
- Valuation method
- Design of survey and sampling

Application studies

- Validity, reliability and capacities of those child-friendly instruments need to be explored in a wide range of clinical settings and populations
- To boost economic evaluations, a linkage to disease-specific QOL instruments is necessary
- An interviewer-administrated survey may be feasible to elicit preference from younger children