HEALTH AND ECONOMY: A GOVERNMENTAL PERSPECTIVE, NATIONAL ACCOUNTING MODEL FOR ASSESSING INVESTMENTS IN ROTAVIRUS VACCINATION

Connolly M1, Chey C2, Standeart B3
1Global Market Access Solutions, St. Prex, Switzerland; 2GlaxoSmithKline Biologicals, Wavre, Belgium

OBJECTIVES: The WHO repeatedly stresses the importance of human capital and investing in health as a determinant of future economic growth. We describe a health care investment model that reflects the government perspective attributed to investing in rotavirus vaccination in Egypt, and how changes in morbidity and mortality impact government expenditure (education, health, allowances) over many generations.

METHODS: The model applies a generational accounting approach for estimating the inter-temporal fiscal impact of policy changes. It accounts for direct fiscal transfers between age cohorts and the State during different life stages—childhood, school-age, working-age, and retirement—while simultaneously accounting for rotavirus medical costs, and how rotavirus morbidity and mortality influence government fiscal transfers. Costs are expressed in Egyptian Pounds (EGP, £1 = 7EGP). The model is constructed using Egyptian life tables, rotavirus related and unrelated health care costs, economic earnings adjusted for age and social parameters. The model compares vaccinated and unvaccinated cohorts against rotavirus using discounted net tax revenues (gross taxes—transfers). RESULTS: Based on variations in rotavirus vaccine price, the model predicts health service savings mostly attributable to averting rotavirus treatment costs that could be achieved within 3–5 years and reaching EGP178 million obtained at year-5. The discounted net tax revenue between vaccinated and unvaccinated cohorts was EGP 5.2 billion and EGP 27.3 billion at year 25 and 50, respectively. Investing in rotavirus vaccination represented a 15% rate of return for unvaccinated cohorts was EGP 5.2 billion and EGP 27.3 billion at year 25 and 50, respectively. Investing in rotavirus vaccination represented a 15% rate of return for government at year-50. Long-term government net tax revenues were insensitive to vaccine prices, although sensitive in short-term. CONCLUSIONS: Health investment models are complementary to conventional economic evaluations of health care technologies. But they illuminate how government accounts, tax revenues, and expenditures are influenced by investing in health care programs. Investing in rotavirus vaccination could deliver early cost-offsets associated with reduced health care expenditure. It could increase future government net tax revenue attributed to lives saved.

PUBLIC HEALTH ECONOMICS—AN EMERGENT SUBDISCIPLINE?

Briët L1, Kruse M2, Haagard B2, Søgaard J3
1Health Economics & Management, Institute of Business Studies, Aalborg University, Denmark; 2Aalborg, Denmark; 3Centre for Applied Health Services Research, University of Southern Denmark, Odense, Denmark; 4DSI Danish Institute for health services Research, Copenhagen, Denmark

BACKGROUND: Are we witnessing the beginning of the development of a new subdiscipline of health economics? The purpose of the paper is to outline the main theoretical arguments for the establishment of a new research tradition on "public health economics" combining public economics with health economics. METHODS: The results from a systematic literature search in PubMed and NHSEED on the term "public health economics" were presented and discussed at a workshop at the Danish public health conference in Nyborg September 22, 2009. Among the invited participants were health economists, public health researchers, HTA-advocates, economists, and decision makers. RESULTS: Three main theoretical arguments were identified: 1) There is a need for developing new methods for the economic evaluation of public health interventions. 2) Economic evaluation of public health care may be misleading if public health research is ignored. 3) The entire health economic research tradition may benefit from encompassing a more socioeconomic model of health. CONCLUSIONS: There is limited tradition yet for health economists and researchers with a public health background to work together and meet regularly, so scientific journals specifically oriented towards public health economics, and no textbook in health economics that include research from all these related areas. Thus, the research environment is to some extent characterised by lack of cooperation, which may constitute an obstacle for the development of a consistent and coherent line of economic research in the field of public health.

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