

# ***Strategy for Center for Health Economics and Policy at UCPH***

## ***1. Objectives and rationale***

Center for Health Economics and Policy (CHEP) aims to deliver cutting-edge research in societal aspects of health. The broader mission of CHEP is to bridge the gap between research-based international knowledge in policy development, on the one side, and prioritization processes at the national, regional, local and organizational levels, on the other side. Engaging in cutting edge research helps to inform and assist policy makers in designing policies that address the societal challenges of improving population health. This requires an integrated approach combining several scientific disciplines to develop theories and methods to explain empirical observations in health economics, and to conduct research on the design and evaluation of health policies and technologies. In a globalized economy with constrained resources, such research has the potential to assist policy makers in prioritization and implementation at the societal, organizational and individual levels.

Since its establishment in 2013, CHEP has been actively engaged in developing research and education in health economics and policy at University of Copenhagen. CHEP facilitates the collaboration between economists, public health and political science researchers and thereby provides a strong platform for analysis that goes beyond traditional mono-disciplinary approaches. All of the participating departments are in the international forefront of their field and participate extensively in international research collaboration. Facilitating collaboration across the departments creates a unique platform for innovative approaches to solving scientific puzzles and engaging in societal and health policy challenges.

The increasing availability of “big data” facilitates the evaluation of policies’ causal impact on individuals, organizations and society. Similarly, the emerging research about ways to influence health related behavior at the individual level (e.g. nudging) can spur more efficient regulation. Research traditions in public health and economics share the perspective of life cycles/life course as a relevant approach for understanding the complex relationships between population health, individual health related behavior and societal contexts. Relying on research in this tradition can improve our capacity to regulate, plan and prioritize future health care.

## **2. Focus areas in CHEP**

At the core of CHEP is the societal challenge of improving population health within a globalized economy with constrained resources. Taking up this challenge requires, first, a fuller understanding of the structural determinants of health and health related behavior, and secondly, a further development of innovative policies that improve health sector

performance and stimulate health improving individual behavior. To develop such innovative solutions, CHEP will focus on the following two research areas:

- I. Individual behavior, socioeconomic resources and health**
- II. Regulation, prioritization and health sector performance**

### **I. Individual behavior, socioeconomic resources and health**

European health systems are facing a number of challenges. Ageing societies, life-style related diseases, and more culturally and ethnically diverse populations challenge the level and distribution of health in the population and the development and provision of health care.

Recent research in health economics and public health confirms that individual health is closely related to other socioeconomic parameters that characterize individuals. Hence, it is found that demand for health rises with income, and that health is perceived as both a consumption and an investment commodity. The dynamic nature of health and its relation to socioeconomic variables that change over the life course pose new interesting research questions that we can address both theoretically and empirically. Understanding fully the relationship between health, individual behavior and socioeconomic conditions is crucial for policy development.

Taking a life course perspective enables a number of important and innovative research areas. There is a growing recognition that the foundations for individual health is laid in the childhood and even in utero, and that early childhood health is important for later educational achievement and income.

Also, it is by now well established that individual health and position in the labor market are closely linked. Work life may potentially affect health, and good health is important for productivity and labor market attachment. CHEP researchers are involved in research that analyzes these complicated links and evaluates fundamental questions related to e.g. how people foresee and react to stressful life events. How do health shocks impact on individual choices in the family and in the labor market? How do sudden changes in economic conditions as e.g. unexpected unemployment affect individual health? And how do individuals make economic choices to insure themselves against loss of income in case of illness?

Throughout the Western world, populations are aging, thereby posing challenges to policy makers in terms of health care and labor supply. Important questions in this respect are to establish the causal relationship between retirement and health, and to suggest policy measures that can secure that the elderly can stay in the work force for a longer period.

With aging populations come increasing occurrence of e.g. dementia, stroke, visual impairment and chronic obstructive lung disease with high demands on long-term care, although age-specific incidences could be decreasing. Moreover, changing life styles, urban

development and working conditions, in combination with changing consumption patterns, contribute to explaining the rise in obesity and surge in diabetes.

Throughout the life course it is clear that inequalities in life conditions create important differences in health status. As health systems in many countries aim at delivering equity in health care provision, it is important to establish to what extent this aim is met, and to inform policy makers of instruments that can improve equity in health.

An important and growing field of research within economics – behavioral economics - combines insights from psychology and economics with state-of-the art techniques for conducting experimental research. Behavioral economics has provided new insights about the way individuals structure information and how the choice situation influences individual decision-making. Combining such information with advanced systemic models from public health can bridge the gap between systemic and individual level factors and provide more advanced understanding of how to design public health policies. Faculty of Social Sciences at University of Copenhagen houses an experimental lab which carries out experiments to test fundamental behavioral assumptions in practice.

## **II. Regulation, prioritization and health sector performance**

Increasing demands for health services and limited public resources make it necessary to maximize the benefits obtained by our investments in health care. Regulation and prioritization are important instruments to pursue this aim.

Research on regulation is about design and implementation of policies to optimize structures, processes and outcomes of the health care system. Efficient policy design requires careful analysis of the likely consequences. Researches in CHEP evaluate the efficiency of economic and political steering mechanisms for improving activity, quality and outcomes in health care.

Other key issues include the impact of economic incentives, including financing of health care, the optimal construction of health insurance systems, provision of health care through public versus private suppliers, the effects of competition and market solutions and the organization and processes of coordination and integration of care. CHEP researchers use comparative health systems analysis to illuminate such questions and to develop further theoretical propositions about health policies and their impact.

Prioritization is a particularly relevant topic for CHEP research. New and expensive medicines, advances in genetic screening, robotic technologies and the fusion of ICT and health care technology hold significant promises for health services and population health. Yet, technology also constitutes one of the main drivers of health care expenditures. It is therefore highly important to develop better ways of assessing the economic impacts of new technologies and to develop more precise methods for making decisions about investments in

such technologies at the societal level and within health organizations. The aim of CHEP research is to develop more sophisticated approaches to making decisions about health technology innovations and implementation.

Emerging regulatory regimes place a greater emphasis on the documentation of economic effects of health technologies. However, there is a lack of international consensus about the optimal methods and frameworks, and there is strong demand for research-based input to both regulators and industry. While the pharmaceutical aspects of these issues are being dealt with in a newly established Center for Regulatory Affairs at UCPH there is a strong need for developing solid, methodologically advanced expertise about economic regulation of technology, industry and decision making processes. This should be based on the international outlook and high level of methodological and theoretical knowledge at the University of Copenhagen.

Key questions about prioritization and health technology include: How can economic analysis contribute to better prioritization of health technologies? How should we measure outcomes of health technologies? What are the effects of different regulatory regimes on health and expenditures? What determines prices of pharmaceuticals and medical equipment?

All of the issues within the theme of regulation, prioritization and health sector performance are explored in an international, comparative perspective providing a solid understanding of the interaction between national organizational features and the international context. Furthermore, the combination of public health, political science and economics research provides insights into the political decision processes in health care, and the mechanisms behind implementation success or failure.

### **3. Methods**

CHEP is in a strong position to analyze life cycle and behavioral research questions due to the combination of public health, economics and political science expertise. Researches in the Department of Economics have a rich tradition for using advanced econometric techniques, taking advantage of the rich Danish register data to understand causal relationships at the individual level for e.g. socioeconomic characteristics, health care use, education, employment and more. Researchers in the Department of Economics also have extensive experience in using experimental techniques for analyzing behavioral patterns and responses to changes in decision contexts (nudging, framing etc).

Researchers at the Department of Public Health use register data as well as large scale cohort data to study the importance of societal, social, psychological and biological factors for developments in population health. Advanced epidemiological and bio-statistical methods are used to calculate effects of different types of exposures, health conditions and interventions. These research environments are extensively connected to international research

communities and have strong traditions for looking at health and health related issues in a global context.

Advanced knowledge of health behavior and economic resources provides a solid platform for analyzing the effects of economic policy and regulation on health system performance, technology and individual health behavior. Insights and methods from political science can help to understand the political and administrative decision processes involved in utilizing research results for designing and implementing health policies.

#### **4. Engaging with research and policy communities**

CHEP is already participating extensively in international research communities and contributing to international journals and books on health policy and economics. Using a life course perspective and engaging in research about individual behavior, socioeconomic resources and health on the one hand, and regulation, prioritization and health sector performance on the other hand, provides a unique and flexible platform for attracting future funding for innovative research projects.

CHEP is also aiming to expand its current engagement with policy makers and partners in the hospital sector and private industry. Using the experience and networks from participating in policy forums at local/regional, national and international levels CHEP will actively seek opportunities to use research based knowledge to inform decision making in health care. A key aim for CHEP is to contribute to bridging the gap between research-based international knowledge and policy development and prioritization processes at the domestic level.