Characteristics of the Danish Healthcare System emphasizing factors that affect innovation

Expert lectures at the Technical University of Denmark and Copenhagen Business School

The complex characteristics of the Danish Healthcare System

The Danish Healthcare System is characterized by being of a very high standard, relatively efficient, but also relatively complex to people not working natively as part of the system. Complexities such as regulations, administrative borders and incentive structures may inhibit innovation, calling for a navigational aid through the system to help innovators developing viable solutions. All over the industrialized world, we see a growing proportion of elderly citizens, more chronic patients and increased demands for faster rehabilitation, and similarly, the Danish Healthcare System experiences ever greater requirements for better and more efficient patient-centered healthcare services. To meet this demand, we need innovative solutions and we need a better understanding of the structure and dynamics of the Danish healthcare system to facilitate the development of solutions.

To address this challenge, the planned seminars will target educators, researchers and students in knowledge institutions ranging from business and management to technology and health sciences, giving them access to efficient overviews of the some main characteristics of the Danish Healthcare System. This will enable educators to incorporate healthcare challenges in both courses and student thesis projects and, in turn, help researchers and students in devoting their skills and creativity to the challenges of healthcare.

Expert lectures on factors affecting innovation in the Danish Healthcare System

In a series of expert lectures, *Copenhagen Health Innovation* will provide an overview of some of the key factors affecting innovation in the Danish Healthcare System in order to create solutions for tomorrow, linking health, entrepreneurship and innovation for the benefit of patients and society. By focusing on information systems, patient care paths, incentive structures and the challenges of innovation, the lectures will seek to provide teachers and thesis students with an overview of the main characteristics of the Danish healthcare systems with special emphasis on factors that are important for creating, testing and implementing innovative designs, interventions and service solutions.

On June 13 and 14, at half-day seminars at DTU and CBS, experts recruited by Copenhagen Health Innovation (DTU, CBS, Metropol, UCPH, the Capital Region and Copenhagen Municipality) will deliver lectures on the state-of-the-art within each of the themes below. Each lecture-plus-slides will be recorded and an edited version will be made available to teachers, students and health professionals.

To register for one or both seminars, please visit the following link where you will also find the abstracts and the detailed programme for the seminars: http://copenhagenhealthinnovation.dk/event/characteristics-of-the-danish-healthcare-system/. The abstracts on the following pages include the expert speaker and the title and content of each lecture.

Abstracts

Half-day seminar at Copenhagen Business School (CBS)

Kilen, rum K146, 1. sal, Kilevej 14, Frederiksberg

13 June, 12:00-15:00

Lecture 1: Challenges to innovation

Speaker: Inge Kristensen, CEO at Danish Society for Patient Safety

What are the challenges and possibilities for innovating within the Danish Healthcare system? The presentation will include a health care view on innovation, structural and social barriers, enablers of innovation and examples.

The lecture will include the following topics:

The framework

- Clinical guidelines and quality assurance schemes - their significance for and possible limitation of innovation. What are the requirements to changes of guidelines when, e.g., novel technologies and procedures become available? The Danish Quality Programme and the philosophy behind it.
- Requirements for carrying out innovation with patients: Ethical review board approvals, data protection, and privacy.
- Work environment – current debate about increased work pressure and demands for increased productivity and control of costs. Change of the performance management system.
- The professional cultures in the health care system. What barriers does culture impose on innovation?

Concepts and examples of innovation

- Structural oriented innovation, process oriented innovation and result oriented innovation – and some examples.
- The upcoming of new agendas and "burning platforms" in healthcare e.g. multi morbidity
- The importance of leadership and will to innovate

Lecture 2: Sector transitions, patient care paths and continuity of care

Speaker: Marie Schultz and Helle Høstrup, Coordination Consultants at Rigshospitalet

The Danish public healthcare system is widely known for providing equal and free of charge healthcare services and hospital treatment for all citizens. Throughout the system, great efforts are put into standardizing clinical, administrative and para-clinical workflows aiming to ensure high standard and efficient patient pathways. This entails a growing demand for coordination in order to overcome the complexity and challenges of cross collaboration between diverse organizations on both political and practical level.

The lecture will focus on patient transitions across sectors, care packages and the socio-technical infrastructures and processes that support the continuity of care.

The lecture will include the following topics:

- **Short introduction**
  The patient-centered approach and its consequences – from a hospital perspective.
- **Standardization**
  Standardization of care packages for cancer patients and programs for patient suffering from chronic diseases (COPD, cardio-vascular, diabetes etc.)
- **Cross-sectorial transitions**
  A short overview of the use of the main social-technical support of cross-sectional transitions (Med-Com).
- **Patient handovers and transitions**
  Measures to reduce gaps in the continuity of care when patients transition between hospital and home or care center and involving coordination of care among hospital, GPs and municipal health services.

Lecture 3: Stories on innovation in the Danish Healthcare System - Lessons learned

Speaker: Jakob Bardram, Director of CACHET, Professor at DTU

This lecture will provide two case stories on i-based innovation in health technology from which useful lessons will be drawn and discussed.

The lecture will include the following topics:

- Research and innovation processes
- Transition from research to innovation and product development
- The importance of paying customers
- Different types of investors and how they fit into the different phases of growth
- Working with the public healthcare system in Denmark
- Challenges to innovation in Denmark

Half-day seminar at the Technical University of Denmark (DTU)

Anker Engelundsvej 101, Kgs. Lyngby, Meeting Room S16

14 June 11:00-14:00

Lecture 4: Incentive structures and performance measures and management

Speaker: Professor Jakob Kjellberg, Program Manager for Health at KORA

This presentation will focus on incentive structures, reimbursement issues and related performance assessment.

The lecture will include the following topics:

- A short introduction to the Danish financing model, DRG-reimbursement and its consequences
- Alternative approaches to assessing performance – VBHC. quality/productivity
- The need for medical technology assessment and priority setting.

Lecture 5: Overall set-up of the Danish healthcare system

Speaker: Hjalte Aaberg, Regional Chief Executive at Capital Region of Denmark

The lecture will introduce you to the Danish healthcare system. It will provide the participants with a short historic overview of the recent major structural and organisational reforms in the healthcare sector, discuss the interplay between the different stakeholders relevant for the sector and highlight the future perspectives for the health care sector and how this development affect healthcare professionals and patients.

The lecture will include the following topics:

- **Short historic overview**
  Recent major structural and organisational reforms in the healthcare sector
- **The interplay between different stakeholders relevant for the sector**
  The complexity of the Danish healthcare system, how it is organized today, what the challenges are, and what measures that calls for – future scenario. Roles, functions and inter-relations of public and private players in the Danish healthcare system (e.g. Regions, Municipalities, GPs, the Danish Health Authority (Sundhedsstyrelsen), Directorate for Health Data (Sundhedsdatastyrelsen), Private practitioners, patient NGOs)
- **Structural challenges**
  Bureaucratic inertia in the state, regions and municipalities. How can relevant parties within healthcare be better at playing together? What are the major challenges and possibilities within this setup?
- **Future structures**
  Hospitals are packed with advanced technology, artificial intelligence and smart digital solutions. It opens up for oceans of opportunities and numerous risks, and it challenges the professional culture and roles as we know them today. It calls for transformation – what could this look like in the future what kind of organization/s and competencies in the healthcare sector?
- **Future competencies**
  The future competencies of health professionals. How do you manage a healthcare system where a robot might soon be better than the most skilled specialists? Better teamwork across sectors. Preparing health professionals (existing and students) for an uncertain future through lifelong learning and willingness to adapt.
- **Future patients**
  Innovating the system and shifting focus from activity to value for patients. Patient-centered care, how do we work with control of quality and safety as well as patient value as a core today?
- **Perspectives**
  Future perspectives on the international health/medico market and DK's position and potential.

Lecture 6: Information systems in the Danish healthcare system

Speaker: Mette Harbo, CIO, City of Copenhagen Health and Care Administration

The lecture will introduce you to information systems in the Danish healthcare system from the point of view of the municipality of Copenhagen. It will provide the participants with an understanding of the digital information systems used in the Danish Healthcare sector, the political vision and framework for digitalization, utilization of the new electronic healthcare records, and benefits and challenges for the healthcare professionals and the citizens.

The lecture will include the following topics:

- **From national strategies to local action**
  Digital transformation in the public healthcare sector. How do we go from national digital vision to local action?
- **Implementing a new mobile healthcare system in the City of Copenhagen**
  The municipal healthcare system (CURA) and its interfaces to hospital systems and other digital information systems used in the Danish Healthcare System
- **The Sandbox – A Plug & Play innovative lab**
  A possibility for companies to demonstrate digital products in a test area integrated in the municipality healthcare system and with end-users. Allows the municipality and providers to explore the possibilities and challenges of digital systems and to engage in innovative collaborations with companies. What is the potential of new digital products and how are the needs of municipalities met?
- **Information sharing**
  New methods for documentation and data sharing in the municipality and the sharing of data between hospitals, municipalities, GPs, patients, and their relatives. What is the potential in sharing information and what will be possible in the future? (Fælles Medicinkort og Fælles Sprog III)
- **Future opportunities**
  What are the potentials in utilizing digital health information across sectors in the years to come for the health professionals and the citizens? How will this alter the requested competencies in the health care sector?