



eHealth

-what is it, pitfalls and challenges, future trends and Telenor in eHealth

Naeem Zahid

Senior Business Developer

Medical doctor, PhD, Surgeon, Master of Business Administration



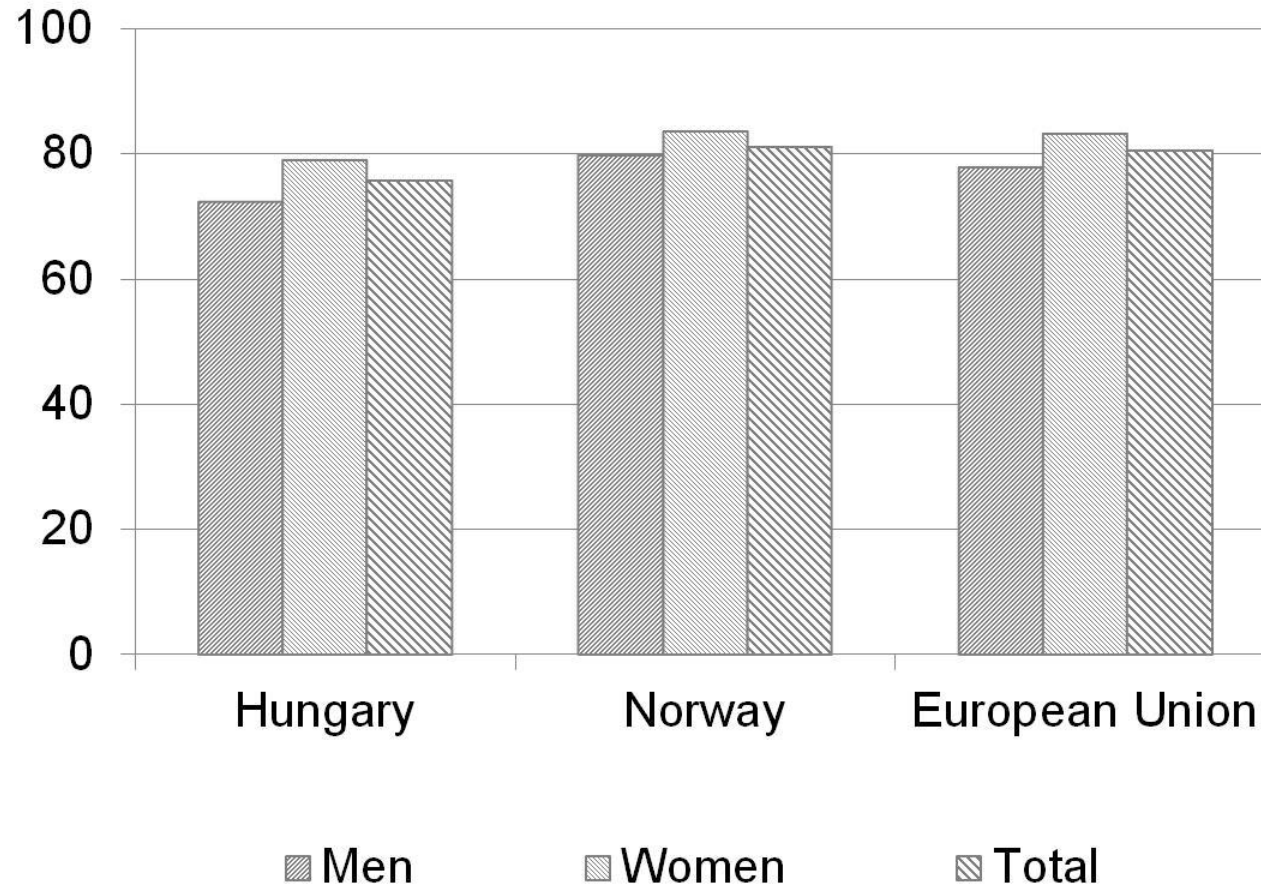
eHealth

-what is it, pitfalls and challenges, future trends and Telenor in eHealth

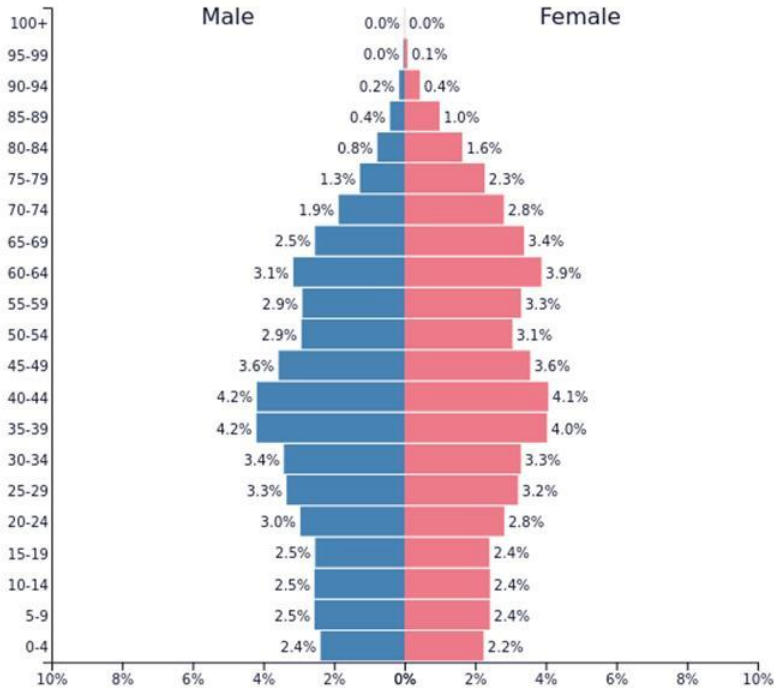
1. Current situation in developed countries
2. Definition of e-health
3. Telenor in e-health
4. Future trends
5. Challenges and pitfalls
6. My vision of health care anno 2020



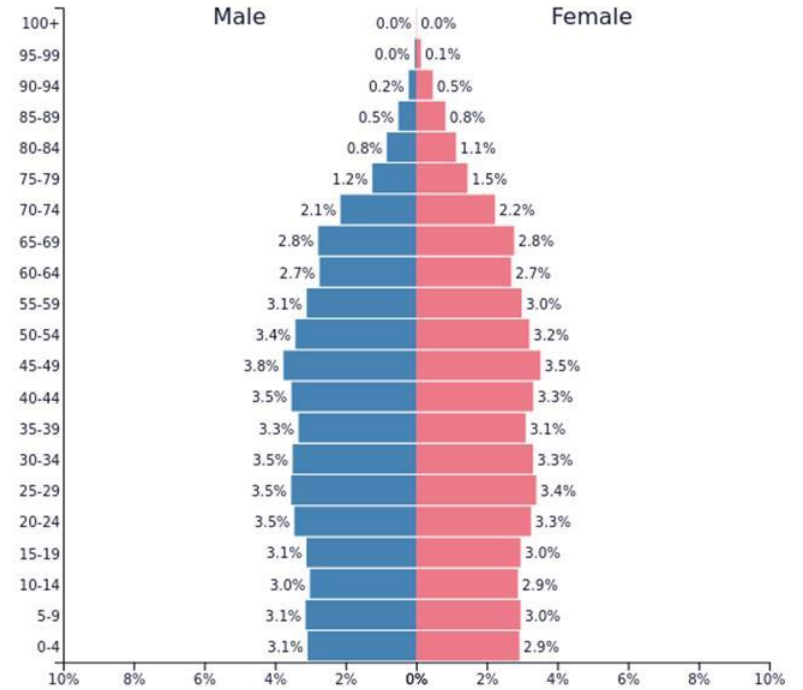
Life expectancy



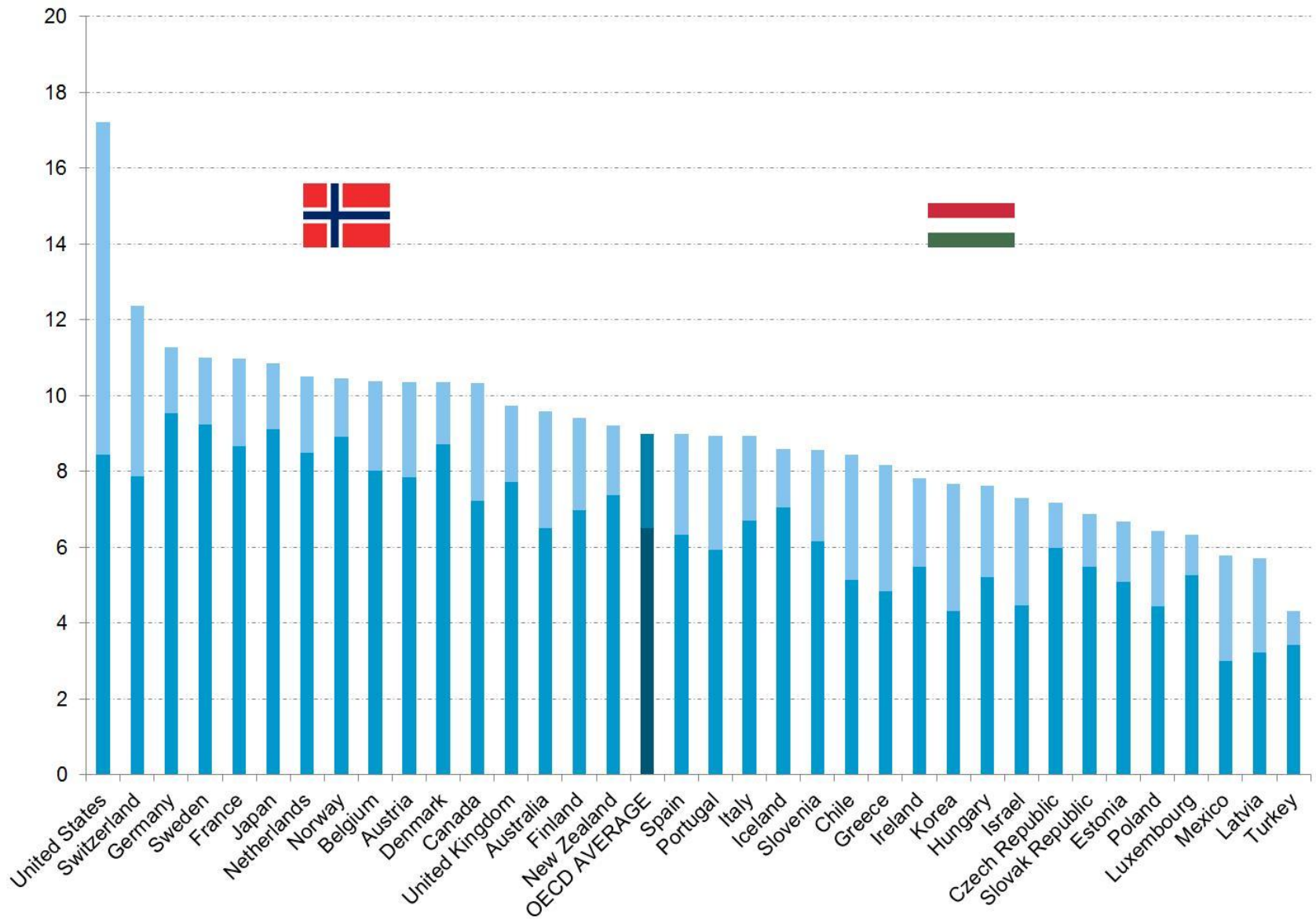
Hungary - 2017
Population: **9,787,905**

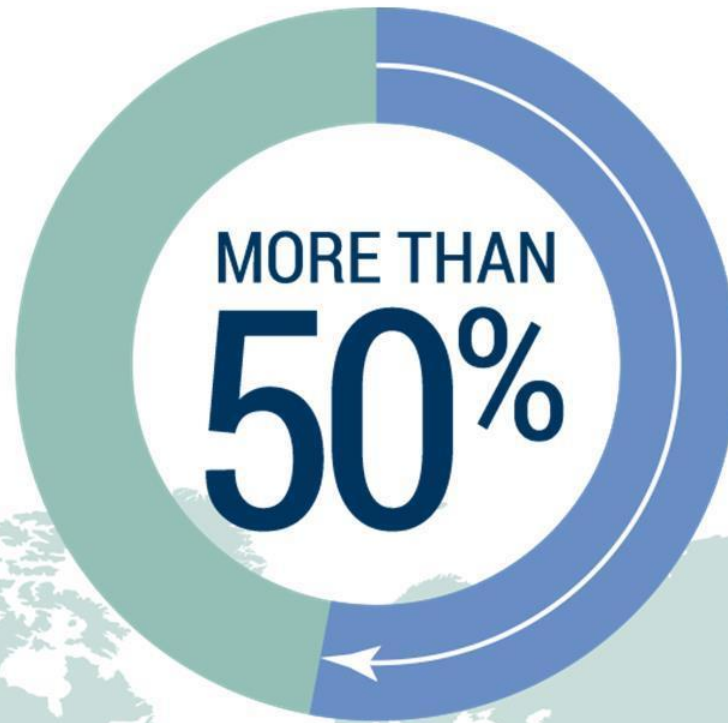


Norway - 2017
Population: **5,330,800**



PopulationPyramid.net





**OF THE WORLD LIVES
WITH CHRONIC DISEASE**




Preventive medicine

Increase efficiency

Involve patients

Can e-Health be the key?



A young woman with long brown hair and blue eyes, wearing a blue top, is smiling and holding a large, light blue rectangular sign in front of her. The sign contains text about ICT in healthcare. The background is a plain, light-colored wall.

Use of ICT to improve
effectivity, quality and
security in health care

TIRSDAG

I dag 25. APRIL Ukeplan

		April					2017	
	ma	ti	on	to	fr	lø	sø	
12	20	21	22	23	24	25	26	
13	27	28	29	30	31	1	2	
14	3	4	5	6	7	8	9	
15	10	11	12	13	14	15	16	
16	17	18	19	20	21	22	23	
17	24	25	26	27	28	29	30	
18	1	2	3	4	5	6	7	



Viser kalender for

Jørgen Gilberg x

NY AVTALE OPPRETT TIMER

Avtaletype

Konsultasjon

Start tid 08:00 Varighet(min) 20

Opprett

- 08:00 K Roland Gundersen (52 år) Synsforstyrrelser
- 08:20 K Kalle Føtter (36 år) Forkjølet
- 08:40 K Kalle Krank (64 år) Forkjølet
- 09:00 K Elise Lindvik (19 år) Ryggplager
- 09:20 K Ovíllás Rástoš Utslett
- 09:40 K MARIÓN ÄNGLEGÅRD (47 år) Ryggplager
- 10:00 K Maria Aas (45 år) Øreverk
- 10:20 K Kai Anlegg (22 år) Muskelsmerter
- 10:40 K Kai Anlegg (22 år) Utslett
- 11:00 K Kjersti Arntsen (59 år) Vondt i skulderen
- 11:20 K Kjersti Arntsen (38 år) Psoriasis
- 11:40 K Dr. Acula (17 år) Synsforstyrrelser
- 12:00 K TOR-ERIK ÄLMGREN (27 år) Kraftig hoste
- 12:20 K Donald Duck (55 år) Psoriasis
- 12:40 K Mons Ter (72 år) Dårlig nattesøvn
- 13:00 K Ann Kristin Leistad (22 år) Synsforstyrrelser
- 13:20 K Ove R. Tro (38 år) Høy feber
- 13:40 K Roland Gundersen (52 år) Høy feber
- 14:00 K Ken Guru (23 år) Vaksinasjon
- 14:20 K Kalle Føtter (36 år) Fjerne føflekk
- 14:40 K Kjersti Arntsen (38 år) Utslett

TIME



Type	Start Dato	KI
Konsultasjon	25. april 2017	08:00

Telefonkontakt
 E-Konsultasjon

 Prioritet
 Normal

BESTILLING

Person

Roland Gundersen x

Årsak

Synsforstyrrelser

Ikke møtt

Åpne Journal

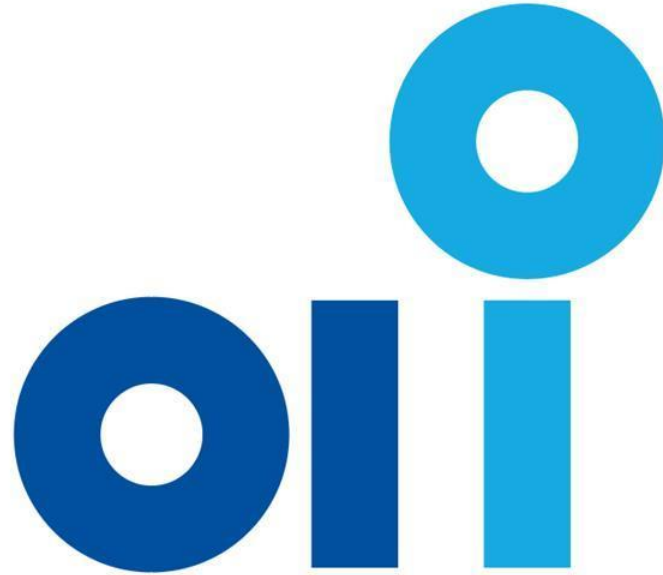
Kommentar

Begynner å se dårlig på venstre øye. Svakt nattesyn

Tilbakemelding til teamet

Telenor in the health sector

Telenor Health in Asia	Smart Municipality	Telenor Objects	Team Hospital	E-health program
<p>Preventive and mobile services</p> <ul style="list-style-type: none"> • Four million users in Bangladesh 	<p>Digitalizing municipalities</p> <ul style="list-style-type: none"> • More than 300 municipalities 	<p>Digital welfare technology</p> <ul style="list-style-type: none"> • More than 130 municipalities 	<p>Communication services</p> <ul style="list-style-type: none"> • To all hospitals 	<p>Dedicated e-health team</p> <ul style="list-style-type: none"> • Innovation • Partnership • Strategy
			<p>Norske sykehus velger Telenor</p> 	



artificial
intelligence
lab



telenor



NTNU



Impact of human mobility on the emergence of dengue epidemics in Pakistan

Amy Wesolowski^{a,b}, Taimur Qureshi^c, Maciej F. Boni^{d,e}, Pål Roe Sundsøy^c, Michael A. Johansson^{b,f}, Syed Basit Rasheed^g, Kenth Engø-Monsen^c, and Caroline O. Buckee^{a,b,1}

^aDepartment of Epidemiology, Harvard T. H. Chan School of Public Health, Boston, MA 02115; ^bCenter for Communicable Disease Dynamics, Harvard T. H. Chan School of Public Health, Boston, MA 02115; ^cTelenor Research, Telenor Group, N-1360 Fornebu, Norway; ^dOxford University Clinical Research Unit, Wellcome Trust Major Overseas Programme, Ho Chi Minh City, Vietnam; ^eCentre for Tropical Medicine, Nuffield Department of Clinical Medicine, University of Oxford, Oxford OX3 7FZ, United Kingdom; ^fDivision of Vector-Borne Diseases, Centers for Disease Control, San Juan, Puerto Rico 00920; and ^gDepartment of Zoology, University of Peshawar, Peshawar 25120, Pakistan

Edited by Burton H. Singer, University of Florida, Gainesville, FL, and approved August 6, 2015 (received for review April 2, 2015)

The recent emergence of dengue viruses into new susceptible human populations throughout Asia and the Middle East, driven in part by human travel on both local and global scales, represents a significant global health risk, particularly in areas with changing climatic suitability for the mosquito vector. In Pakistan, dengue has been endemic for decades in the southern port city of Karachi, but large epidemics in the northeast have emerged only since 2011. Pakistan is therefore representative of many countries on the verge of countrywide endemic dengue transmission, where prevention, surveillance, and preparedness are key priorities in previously dengue-free regions. We analyze spatially explicit dengue case data from a large outbreak in Pakistan in 2013 and compare the dynamics of the epidemic to an epidemiological model of dengue virus transmission based on climate and mobility data from ~40 million mobile phone subscribers. We find that

Dengue has long been endemic in most Southeast Asian countries (1), but has more recently emerged in parts of the Middle East and South Asia, including Pakistan (15, 16). In Pakistan, the transmission of dengue viruses was largely confined to the southern city of Karachi until 2011 when a large dengue epidemic with over 20,000 cases occurred in the northeastern city of Lahore (16), causing significant morbidity and mortality. In 2013, a second large epidemic occurred in northeastern Pakistan in Punjab and Khyber-Pakhtunkhwa (KP) provinces, establishing the region as an emerging focus of seasonal dengue epidemics. It has been hypothesized that the recent geographic expansion of *A. aegypti* mosquito vectors, changing environmental suitability, and human importation of dengue from endemic regions all contributed to the emergence of dengue in northern areas (17). Pakistan is therefore representative of many countries that are on the verge





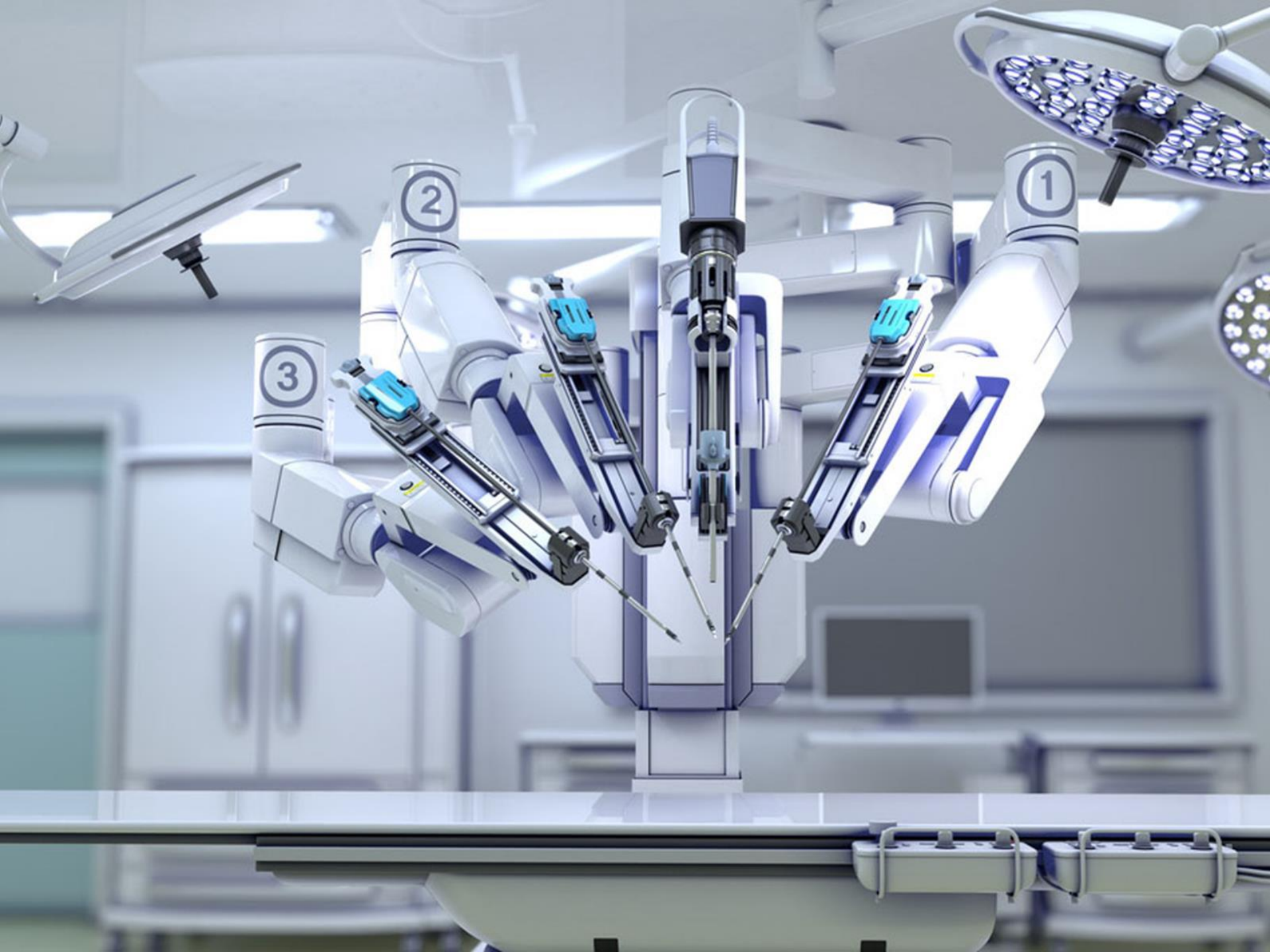
VIS- Project in Oslo

Reduction in use

	<u>Short term</u>	<u>Long term</u>
<u>Out-patient</u>	34,4 %	41,8 %
<u>In-patient</u>	18,7 %	32,3 %
Hospital days	33,0 %	39,1 %













134:23:454:12

23:35:60
Business Strategy
Innovation
Branding
Solution
Marketing
Analysis
Ideas
Success
Management

23:35:60





Patient info and history



Birth: 12/15/1980
Sex: Male
Place: TEXAS
History:
Cancer: 5/30/2013
Brain Scan: 10/13/2014

Patient info

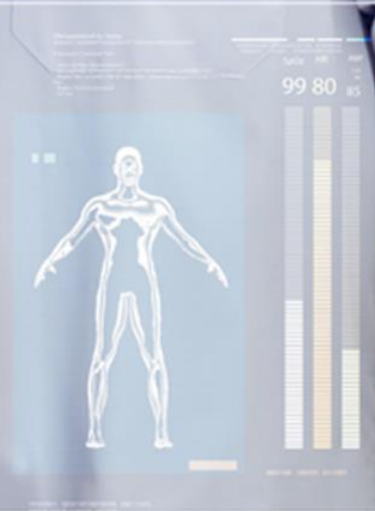
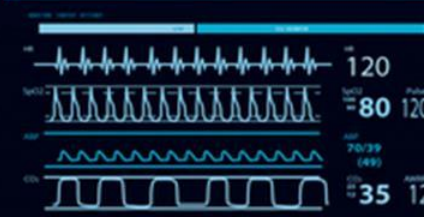
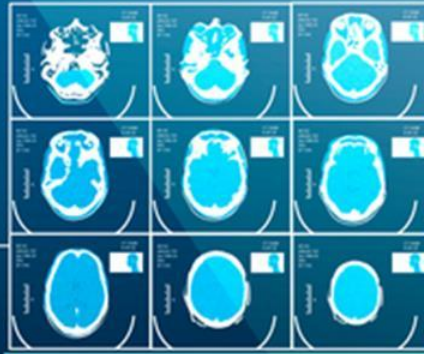
Medical History

Schedule Record

Admission

Pharmacy

Calendar







Contact:

E-mail: naeem.zahid@telenor.com

Tel.: 930 14 257

[twitter@naeemzahid](https://twitter.com/naeemzahid)