

mHEALTH FOR NON-COMMUNICABLE DISEASES (NCDs) INITIATIVE



Cancers



Cardiovascular  
Diseases



Diabetes



Respiratory  
Diseases

**BE  
HE@LTHY  
BE  
MOBILE**

MOBILE TECHNOLOGY FOR A HEALTHY LIFE

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## Mobile Health in Norway ノルウェーにおけるモバイルヘルス

[www.who.int](http://www.who.int) • [mhealth4ncd.itu.int](http://mhealth4ncd.itu.int)

A collaborative initiative between



# Overview

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- Brief background about Norway and how health services are organized  
ノルウェーについての簡単な背景知識及びどのように健康サービスが組織されているか
- Brief history of eHealth and mHealth in Norway  
ノルウェーにおけるeHealthとmHealthの略史
- Government strategies and whitepapers related to eHealth and mHealth  
eHealthとmHealthに関連する政府戦略や白書
- Examples of projects and programs from research, private sector, and government  
研究機関、民間及び政府のプロジェクト及びプログラム事例
- Be He@lthy, Be Mobile Norway

## Norway ノルウェー

- Population(人口):5.120.000

- Area similar to Japan  
日本と似た地域

- technologies (early adopters)  
技術(早期の採用者)

- Strong social welfare system

強固な社会福祉システム

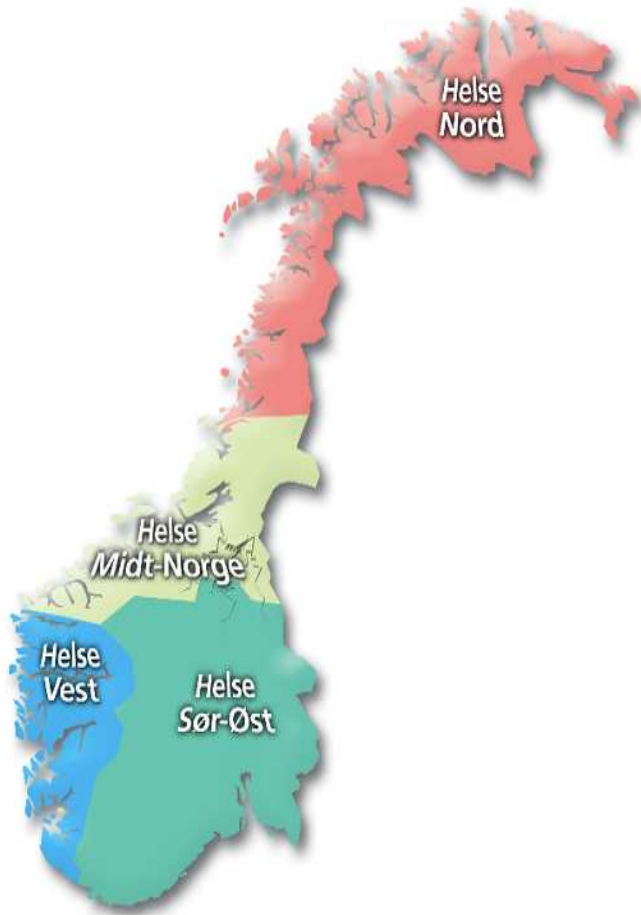
- Good mobile broadband infrastructure available in all places where people live

居住区全域で利用できる良好な携帯ブロードバンドのインフラ

- High adoption rate of new technologies

新しい技術の高い採用率





- 4 Regional Health Trusts owns hospitals and has the responsibility to provide specialist healthcare services, according to specifications and budgets from the Government (MoH)

政府による仕様と予算に基づき、4つの地域健康トラストが病院を持ち専門家によるヘルスケアサービスを提供する責任を有する

- Primary health care is provided by 428 municipalities, GPs are private enterprises, and gatekeepers for access to specialist services

428の自治体がプライマリーヘルスケアを提供しており、総合診療医は民間の事業者で専門家サービスへのアクセスに関する玄関口である

# Sommaroya ソンマルオイヤ

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# Brief history of eHealth and mHealth in Norway

## ノルウェーのeHealth及びmHealthの略史

- 1969 -> Norway and Nordic countries are early developers and adopters of mobile phone infrastructures for health ノルウェーと北欧諸国は健康のための携帯電話インフラを早くから開発し採用
  - NMT and GSM are initially developed through Nordic initiatives  
NMT(アナログ携帯電話)とGSM(2G)は当初、北欧の主導で開発
- 1980: First EHR for GPs developed through collaboration with academia; commercial vendors follow soon, today: 100% EHR in hospitals and GPs アカデミアとの連携により最初の総合診療医のためのEHRが開発される;すぐに民間ベンダーが追随、現在:病院及び総合診療医で完全EHR化
- 1993: Norwegian Centre for Telemedicine (NST) established ノルウェー遠隔医療センター設立
- 1996: “More Health for every bIT”; first national strategy to give direction and suggest a national infrastructure ITでより完全な健康に;国家的インフラを提案し方向付ける最初の国家戦略
- 2000: Norwegian Health Net provides a common infrastructure for messaging, video conference, and secure Internet access for all hospitals and GPs ノルウェーヘルスネットが全ての病院及び統合診療医にメール、ビデオ会議及び安全なインターネットアクセスのための共通インフラを提供
- 2011: “Innovation in Care Services” Government Whitepaper “介護サービスにおけるイノベーション” 政府白書
- 2012: “The Coordination Reform” shifts focus towards prevention and a patient perspective on health services 「調整改革」により健康サービスにおいて予防及び患者の観点へ焦点が移る
- 2012: “One Citizen – One Health Record” Government Whitepaper -> Huge projects to develop new integrated and interoperable health information systems “1人に1つの健康情報” 政府白書→新たな統合・総合運用可能健康情報を開発する大規模プロジェクト
- 2014: National program for Welfare technology launched, 32 municipalities 福祉技術国家プログラムに32の自治体が着手
- 2014: Norway joins BHBM initiative as part of national focus on mHealth ノルウェーにおけるmHealthの国家重点目標のひとつとしてBe He@lthy, Be Mobileに参加
- 2016: Norwegian eHealth Directorate established ノルウェーeHealth理事会を設立

# Early adopters of mobile phones 携帯電話の早期採用

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Photo: telemuseet

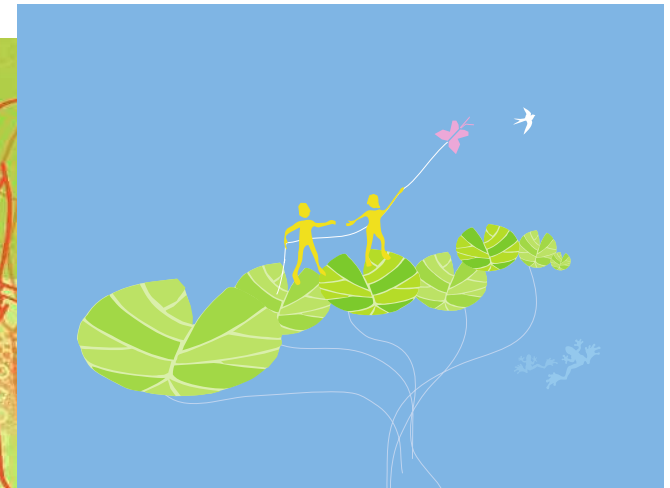
# eHealth strategies in Norway    ノルウェーにおけるeHealth戦略



**Meld. St. 29**  
(2012–2013)  
Melding til Stortinget  
Utdanning og  
helse og omsorgsdepartementet



**Meld. St. 13**  
(2011–2012)  
Melding til Stortinget  
Utdanning for velferd  
Samspill i praksis





# Not sustainable – why we need to adopt mHealth

## 持続的ではない-何故mHealthを採用する必要があるのか

2012

- 1 out of 6 secondary school pupils went into health related work

6人に1人の高校生が健康関連の職業に就く

2035

- In order to sustain same level of services

同レベルのサービスを維持するため

- ...to the same age groups

同じ年齢グループ

- 1 out of 3 secondary school pupils must chose to go into health related work

3人に1人の高校生は健康関連の職業に就かなければならない

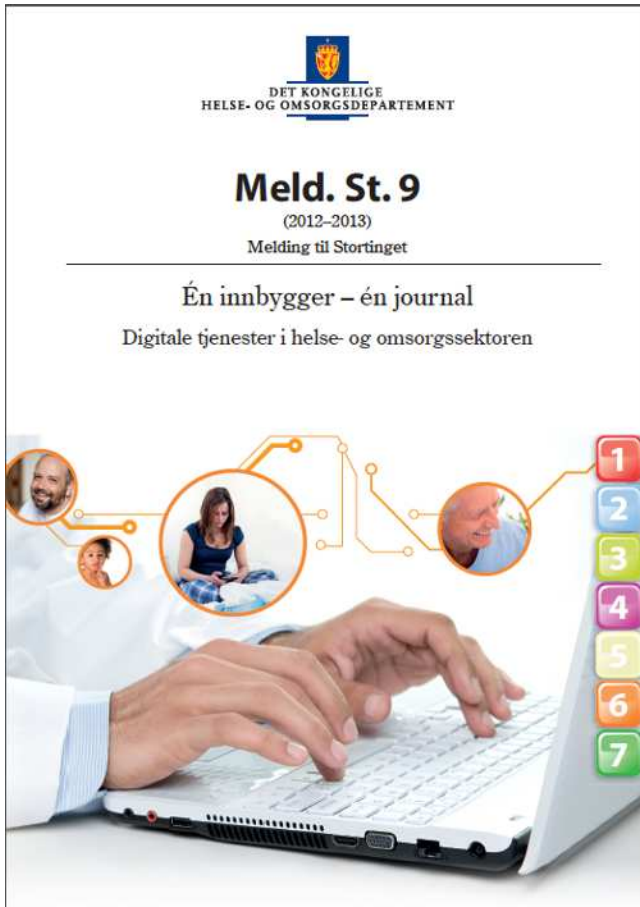
# Current strategies 現在の戦略

DET KONGELIGE  
HELSE- OG OMSORGSDEPARTEMENT

**Meld. St. 9**  
(2012–2013)  
Melding til Stortinget

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Én innbygger – én journal  
Digitale tjenester i helse- og omsorgssektoren

The cover features a photograph of hands typing on a laptop keyboard. Overlaid on the image is a network diagram with orange lines connecting several circular icons. These icons contain images of a man, a woman, a child, and an elderly man. To the right of the laptop, there is a vertical column of seven colored buttons numbered 1 through 7.

DET KONGELIGE  
HELSE- OG OMSORGSDEPARTEMENT

**St.meld. nr. 47**  
(2008–2009)

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Samhandlingsreformen  
Rett behandling – på rett sted – til rett tid

The cover features a photograph of several hands of different skin tones clasped together in a supportive grip. The background is a yellow-tinted collage of various people's faces, including children and adults.

# Health portal 健康ポータル

PER ERLEND HASVOLD

200205 43 430

Mann / 51 år (født: 28.02.1965)



KJERNEJOURNAL

Utskriftsdato: 21.03.2016

KJ opprettet: 01.11.2015

Side: 5 av 8

## Besøkhistorikk - Spesialisthelsetjenesten

Kilde: Norsk Pasientregister (NPR)

Her ser du dine besøk hos sykehus og spesialister tilbake til 2008. Informasjonen er hentet fra NPR (Norsk Pasientregister) og finnes også i din kjernejournal. Har du vært på samme sted flere ganger etter hverandre vil det vises som et innslag med en liste med datoer.

Totalt antall episoder registrert: 10

elsenorge.no

MIN HELSE

fastlege

**Terapeutavdelingen** 24.10.2011

Terapeutavdelingen  
Universitetssykehuset Nord-Norge

**Håndkirurgi - seksjon** 24.10.2011

Ortopedi- og plastikkirurgisk avdeling  
Universitetssykehuset Nord-Norge

## Digitale helsetjenester

Her samles tjenester du kan benytte for å følge opp din helse. Flere er under utvikling. Du ser også tjenester som er under utprøving i utvalgte områder i Norge. Etter hvert vil du kunne benytte flere tjenester på vegne av dine barn og de som har gitt deg fullmakt. [Les mer om tjenestene på Min helse](#)



Meldinger

Meldinger du har sendt og

For Helse Vest



Timeavtaler

Eventuelle avtaler med



Profil

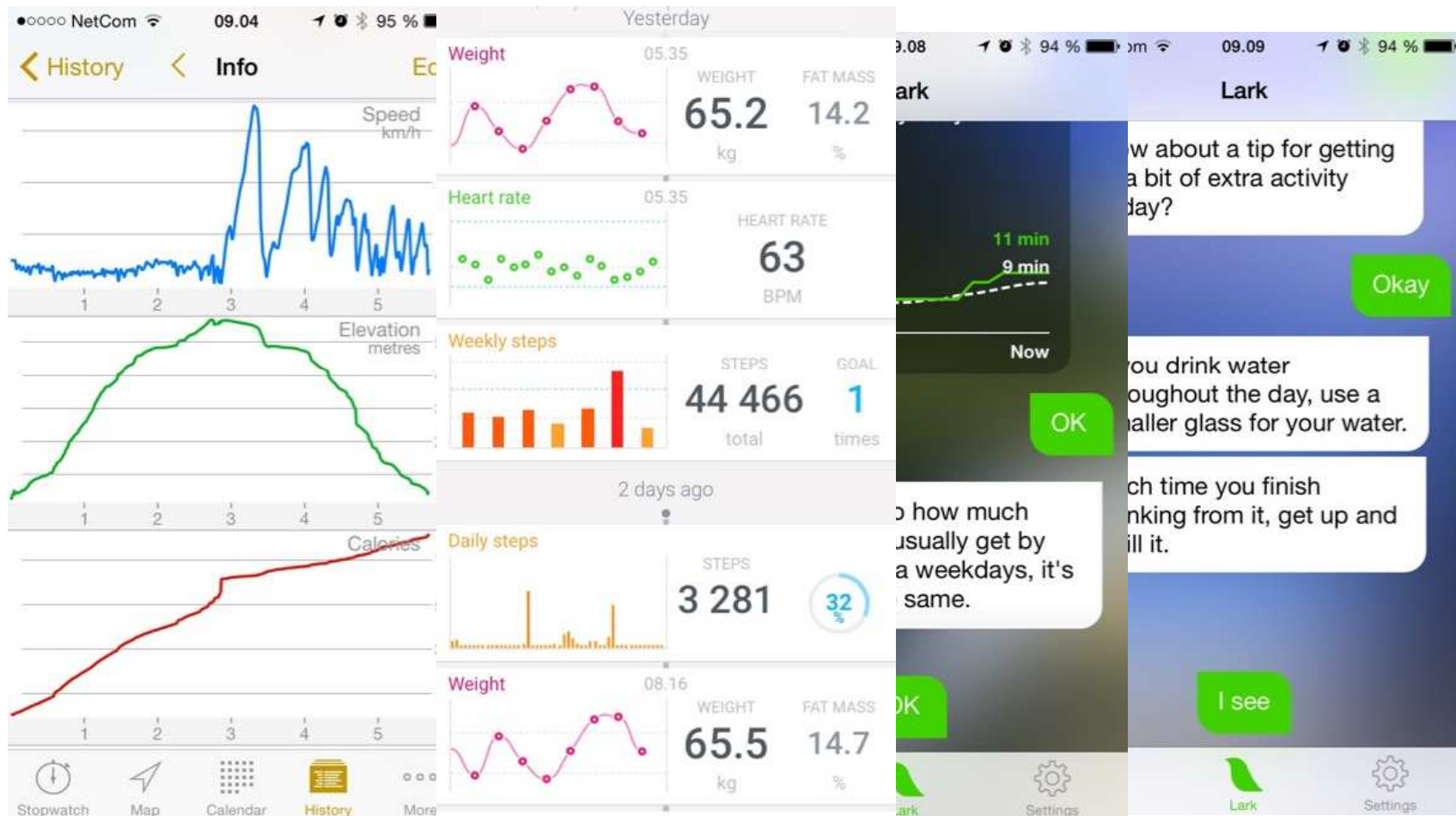
Kontaktinformasjon, bilder og



Resepter

Resepter på legemidler og andre

# mHealth Data, New Services? mHealth データ、新たなサービス？



# Status of mHealth in Norway    ノルウェーにおけるmHealthの状態

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- Research and Development 研究開発
  - Universities 大学
  - Research institutes 研究所
  - Regional funding through the Regional Health Trusts, National funding through Research Council of Norway, Nordic Research Collaboration, European Union (Horizon2020)  
地域健康トラストによる地域ファンディング、ノルウェー研究協議会、北欧研究連携、EUによる国家的ファンディング
- Incentives for industry to collaborate with research  
産業が研究機関と連携するインセンティブ
- Strong tradition for inter-disciplinary collaboration in research  
研究において学際的に連携する強固な伝統

# The DiabetesDiary (Diabetesdagboka) 糖尿病ダイアリー



- Self-management; learning from own data; user controlled sharing of data  
自己管理; 自分のデータから学びデータの共有を管理

# mCOPD (慢性閉塞肺疾患)



# Smoking Cessation 禁煙



## Få hjelp til din snus- og røykeslutt

Mange ønsker hjelp til å slutte å røyke eller snuse. Bruk telefon, chat, app, nettsider, helsepersonell og kurs.



## Tips for å slutte å røyke

Hvis du har lyst til å slutte, kan du gjøre det selv ved å følge disse tipsene.



## Tips for å slutte å snuse

Om du vil slutte å snuse bør du forberede deg godt. Hjelpemidler kan gjøre det lettere.



Se hvilke helsegevinster du får kort tid etter røykeslutt



## Røyketelefonen

**80040085**

Røyketelefonen er en gratis veiledningstjeneste for deg som ønsker informasjon om eller hjelp til å slutte med røyk eller snus.



# Internet of Things (IoT) モノのインターネット



## BHBM Norway (Be He@lthy, Be Mobile ノルウェー)

- Joined BHBM initiative in November 2014 2014年11月に参加
- Digital Health Platform workshop, Oslo オスロでデジタルヘルスプラットフォームワークショップ
- mCOPD as first national program 最初の国家的プログラムとしてのmCOPD
- Assessment of health-apps workshop, Tromsø トロムソにおける健康アプリ評価のワークショップ
- Benefits for Norway and Norwegian Partners:  
ノルウェー及びノルウェーのパートナーの利益
  - Access to international experts インターネット専門家へのアクセス
  - Learn from other countries' experiences, and influence others 他国の経験を学習、また他国へ影響も
  - Share content resources and concepts コンテンツのリソースやコンセプトを共有
  - Participation in arena where future mHealth programs are being made 今後mHealthプログラムが形成される場へ参加
  - Norwegian Partners gets exposure ノルウェーのパートナーが注目される
- DHP Handbook will be used in development of a national mHealth integration platform DHPハンドブックが国家的mHealth統合プラットフォームの開発に使用される
- Norway provide funding to the global program, and a secondment position to the WHO BHBM team  
ノルウェーはグローバルなプラットフォームに資金を拠出、またWHOのチームに人材を派遣

