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Realising the shared electronic health record (REAL)?

Andreas D. Landmark
SINTEF Digital

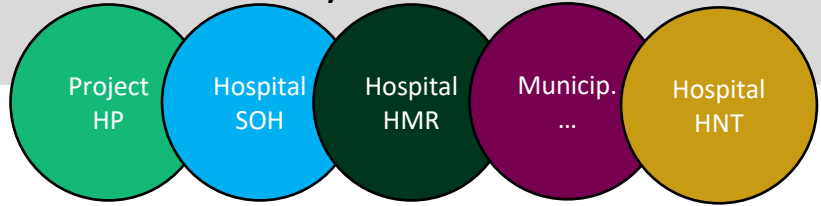


Teknologi for et bedre samfunn

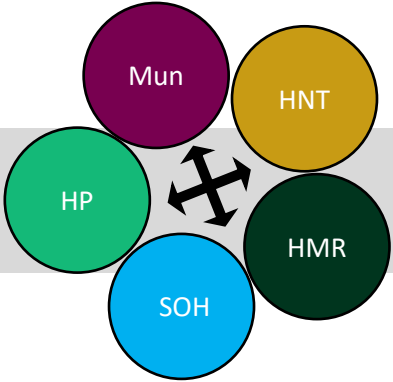


The overall aim of REAL is to expand the **knowledge base on implementing large-scale health information systems**, and to contribute with input and collaborative learning in the ongoing Epic implementation.

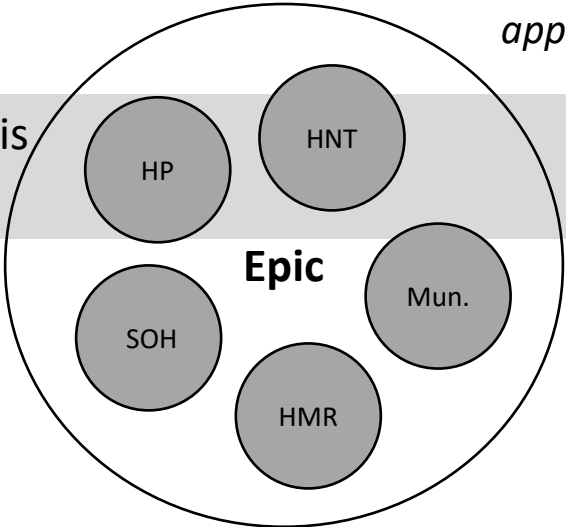
1. Within-site analysis



2. Between-site analysis



3. Second within-site analysis



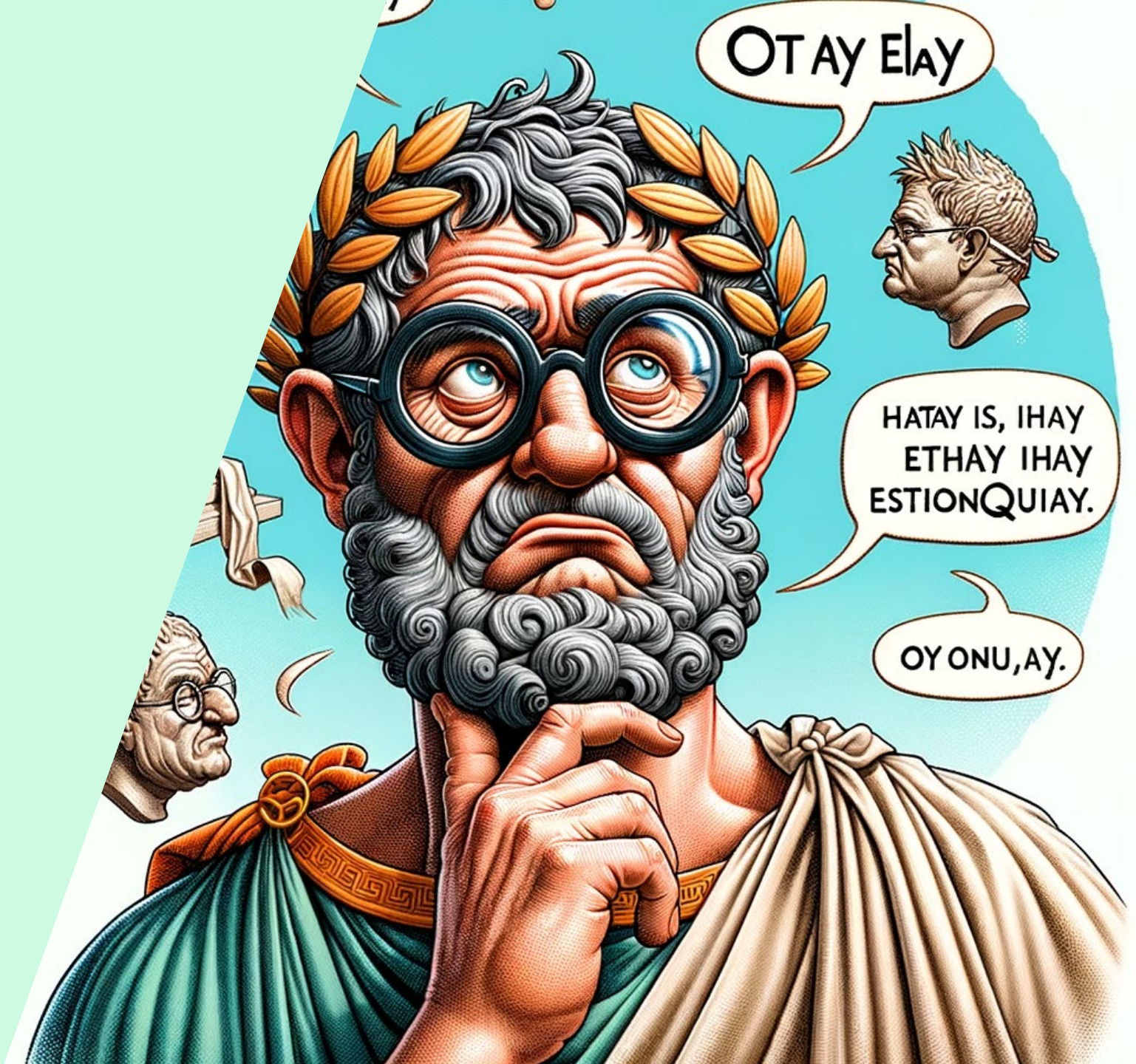
Identifying variation within the data

Identifying overarching themes with broad applicability



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Ceteris paribus





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Ceteris paribus: “alt annet likt”

Naïvt kan man tenke at to innføringer av samme teknologi følger samme mønster – *gitt at alt annet er likt* (altså et teknologideterministisk perspektiv).

Når det gjelder organisasjoner er *aldri alt annet likt*

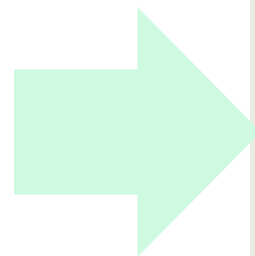
(altså mer et sosialkonstruktivistisk perspektiv).



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Eller sagt på en annen måte...

Alle lykkelige ekteskap ligner på hverandre,
ethvert ulykkelig ekteskap er ulykkelig på sin egen måte...



Det er et behov for kunnskap og **bedre teori** om store teknologiimplementasjoner



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smakebit substantiv [en]

BETYDNING OG BRUK

- 1 liten bit av noe spiselig som man får for å prøve smaken
- 2 liten prøve på, opplevelse av (noe)



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The role of health informatics research: a case of a large-scale implementation in Norway

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³UiT, The Arctic University, Norway

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Abstract. Many see the role of health informatics research as informing the development and implementation of information technology in clinical practice. The aim of this study is to see if this role is realized in the ongoing implementation of a large-scale health information system in central Norway. By doing a document analysis of the planning documents for the implementation, we assess to what extent evidence from the scientific community is explicitly referenced and used in the implementation planning. We found that evidence available is not explicitly used, and that evidence required is not widely available.

Keywords. Implementation, Implementation science, Health informatics research

1. Introduction

Several authors have reflected upon the role of research within health informatics. In the book *evidence-based health informatics* [1] the authors formulate the role of research within health informatics as “systematically looking for evidence ... for the practice of health informatics – for the sake of patients, of health care organizations, and for high-quality and efficient health care” [1] (p. vi). Coiera [2] defines the role of health informatics research, as “the study of information and communication systems in healthcare” in order to “develop interventions to improve these systems [and] evaluate the impact of these interventions on health care.” To use the title of [1], we could say that the ambition to realize evidence-based health informatics implies that the research results produced and published by the health informatics research community, inform the development and implementation of health information technology (HIT). In this

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Bruker man *forskningsbasert* kunnskap når man designer en enorm implementasjon?

Svaret er vel *tja* – når vi ser på det skriftliggjorte.

*...men feltet er også forholdsvis fattig på teori som sier noe om et prospektivt (implementasjons)design, men god på **tolking** av et resultat.*



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Hva er en **kritisk suksessfaktor** for et lykkelig ekteskap?



“Snakk sammen!”

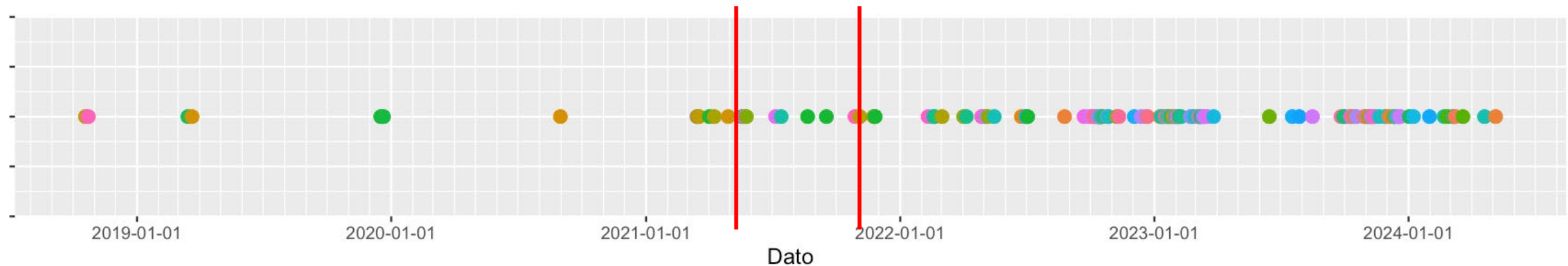
...et annet ord for å snakke sammen på jobb, er **medvirkning**.



...fakkeltog er også en måte å **uttrykke seg på**

Det er (til i går) skrevet 140 kronikker om Helseplattformen i Midt-Norsk debatt/Trønderdebatt.

Det er spesielt for innføring av et “fagsystem” hvor sluttbrukeren stort sett er en ansatt...
Her er det stemmer som opplever at medvirkning har feilet – men hvilken medvirkning?





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Å forstå motpartens forventninger er viktig for å snakke *sammen*

Check for updates

Health Informatics Journal
●●●●●

Original Article

Drivers of expectations: Why are Norwegian general practitioners skeptical of a prospective electronic health record?

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University of Copenhagen, Denmark

Gunnar Ellingsen^{ID}
UIT The Arctic University of Norway, Norway

Line Melby
SINTEF Digital, Norway

Abstract
While expectations are well-known drivers of electronic health record (EHR) adoption, the drivers of expectations are more elusive. On the basis of interviews with general practitioners (GPs), we investigate how the early implementation process drives their expectations of an EHR that is being implemented in Norway. The GPs' expectations of the prospective EHR are driven by (a) satisfying experiences with their current system, (b) the transfer of others' experiences with the prospective EHR, (c) a sense of alignment, or lack thereof, with those in charge of the implementation process, (d) uncertainty about the inclusion of GP needs, and (e) competing technological futures. To manage expectations, starting early is important. Mismanaged expectations produce a need for convincing people to reverse their expectations. This appears to be the situation in Norway, where the GPs are currently skeptical of the prospective EHR.

Keywords
adoption, electronic health record, expectations, general practitioner, primary care

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Forventninger driver frem bruk av EPJ – spørsmålet her er “men hva som driver frem forventninger?”

Vi har studert norske fastlegers skepsis til det fremtidige EPJ-systemet,

- drevet av deres tilfredshet med nåværende systemer,
- negative erfaringer rapportert fra andre land,
- misalignment med Helseplattformen,
- usikkerhet rundt systemets egnethet for primærhelsetjenesten,
- og tilstedeværelsen av alternative EPJ-løsninger.

Hertzum M, Ellingsen G, Melby L. Drivers of expectations: Why are Norwegian general practitioners skeptical of a prospective electronic health record? Health Informatics Journal. 2021;27(1). doi:10.1177/1460458220987298



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Hvem er samtalepartnerne?

Spenningen mellom nasjonale og lokale hensyn – og ikke minst hvordan de store policy-målene som pekte på standardisering, kan være utfordrende i praksis.

Basert på intervjuer med ledere, fastleger, og andre interessenter i programmet.

Hovedfunnet er at balansen mellom standardisering og skreddersøm er hårfin. Brukermedvirkning er både en del av løsningen og problemet, for fleksibilitet og standardisering er ikke nødvendigvis enkelt.

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ECSCW CONTRIBUTION



The Tension between National and Local Concerns in Preparing for Large-Scale Generic Systems in Healthcare

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Abstract. Large-scale generic systems are typically adapted to local practice through configuration. This is especially important in healthcare, which involves a plurality of institutions and users. However, the decision to acquire a generic system in public healthcare is typically founded on regional and national health policy goals, which often are translated into various forms of standardization. As a result, national and regional health policy interests may stand in contrast to interests on the local level. Therefore, we analyze how national and local concerns are weighed against each other in the preparations for implementing large-scale generic systems in healthcare. We explore what role configuration plays and what the prospects are for long-term development. We contribute with insight into how the organizational consequences of generic systems are formed already in the preparation phase and point to how configuration easily results in standardization, thereby basically privileging national and regional health goals at the expense of local needs. Empirically, we focus on the preparations for implementing the Epic electronic health record in Central Norway.

Keywords: Large-scale generic systems, Electronic health records, Epic, General practitioners, National concerns, Local concerns, Central Norway

1 Introduction

The implementation of large generic systems in organizations is associated with many benefits. Some of these are institution-wide coverage, streamlined work practices, and the possibility to reuse systems across institutional settings. However, many studies have noted how organizations differ and may have diverging needs (e.g., Berg and Goorman 1999; Star and Ruhleder 1996). To handle this diversity, generic systems have extensive configuration facilities (Cooney et al. 2011). These facilities make it possible to adapt the systems to diverse practices and users (Pollock et al. 2003), thereby minimizing the need for new development. In this process, the customer's implementation program



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...men også stemmen som druknet?

Context Sensitive Health Informatics and the Pandemic Boost

A. Bamgboje-Ayodele et al. (Eds.)

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Configuring Secretarial Workflows in the Epic EHR Suite

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Abstract. The primary goal of large-scale electronic health record (EHR) suites is to meet the needs of a broad range of users in healthcare institutions. EHR suites are extensively configurable, which makes it possible to tailor them to diverse professional practices and users. However, while users such as physicians and nurses may have clearly defined responsibilities, clerical personnel (i.e. secretaries) conduct “in-between” or invisible work that is not as easily defined. Therefore, it may be more difficult to tailor EHR suites to their needs. Moreover, because secretaries are quite low in the hospital hierarchy, it is difficult for them to obtain satisfactory solutions. In this paper, we explore the challenges of configuring the EHR suite for secretarial workflows in the Health Platform program in central Norway.

Keywords. EHR suite, Epic, secretaries, articulation work, invisible work

1. Introduction

The primary goal of large-scale electronic health record (EHR) suites is to meet the needs of a broad range of users in healthcare institutions. EHR suites are extensively configurable, which makes it possible to tailor them to diverse professional practices and users [1]. This tailoring process requires thorough preparation, with expert configurators and users collaborating closely to design the needed functionality before a system goes live. However, while users such as physicians and nurses may have clearly defined responsibilities, clerical personnel’s (i.e., secretaries’) work is less easily defined. Secretaries typically conduct “in-between” or invisible work [2]: they support physicians’ day-to-day activities and must adapt to shifting needs. Therefore, it may be more difficult to tailor EHR suites to their needs. In this context, we asked the following research question: What are the challenges of configuring EHR suites for secretarial work? From a theoretical perspective, we used the notion of *articulation work* to describe the “activities required to manage the distributed nature of cooperative work” [3].

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23 intervju, samt en del dokumenter i perioden 2018-2022. Primært om forventninger og erfaringer fra relativt tidlig etter Golive.

Helsesekretærarbeidet er ofte usynlig men helt sentralt for å få driften til å gå rundt. Utfordringer med hierarki, systemforståelse (sykehuset som system) og hvordan disse arbeidsflytene passer inn i de kliniske arbeidsflytene.



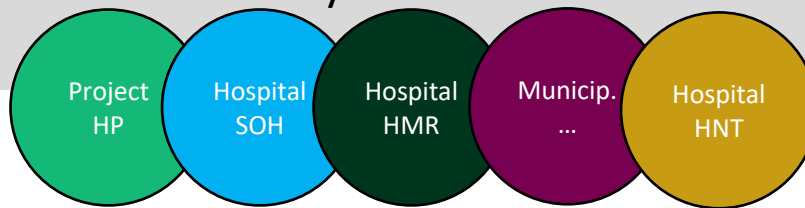


Hovedvekten er fortsatt i det første sporet. Av veldig praktiske årsaker...

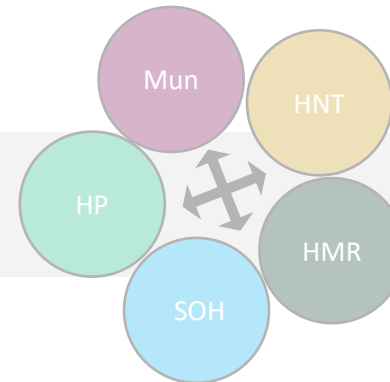
Moderne IT-utvikling (også i HP) legger også opp til en medvirkning, som ligner, overlapper – men kvalitativt er noe annet enn arbeidslivets medvirkning.

Superbrukere, kliniske byggere, dette er uttrykk for en form for medvirkning. Denne holder vi nå på å forstå bedre

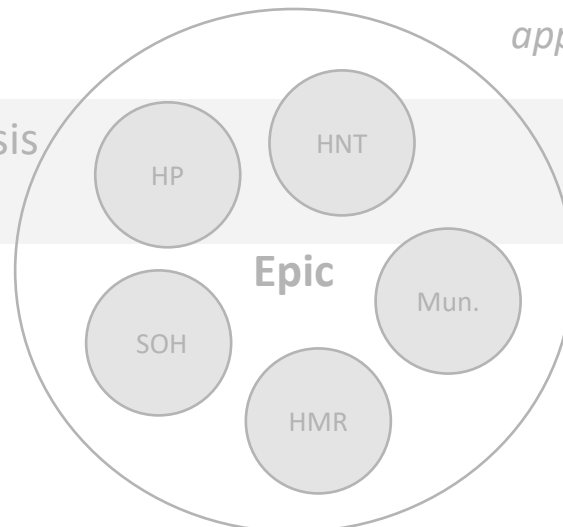
1. Within-site analysis



2. Between-site analysis



3. Second within-site analysis



Identifying variation within the data

Identifying overarching themes with broad applicability



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Følgforskning på implementering av Helseplattformen

Innføring av store helseinformasjonssystemer, som Helseplattformen, er et komplekst, kostbart og krevende arbeid. Det er derfor viktig å systematisere lærdom fra innføringsprosessen til nytte både for den pågående implementeringen og for senere store innføringsprosjekter i Norge.

Kontaktperson



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Finansiering

Norges forskningsråd, prosjekt nr. 326744. Prosjektet inkluderer en PhD-stipendiat.

Prosjektledelse

Prosjektet ledes av SINTEF Digital, avd. Helse.

Forskningspartnere: NTNU, UiT Norges arktiske universitet, Nasjonalt senter for e-helseforskning og Københavns universitet.

Samarbeidspartnere

Helseplattformen, St. Olavs hospital HF, Helse Nord-Trøndelag HF og Helse Møre og Romsdal HF.

Prosjekttype

Kompetanse- og samarbeidsprosjekt (KSP).



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Teknologi for et bedre samfunn