better

MISSION

Exploring the future of digital healthcare. A publication by Better.

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PLUS • The Universal Care Plan for London • Global echo: Nigeria, UK • Building a design system for healthcare • The Christie's digital strategy • Interview: Gary McAllister • SNOMED concept linker • Blog • Better events • New Markets: Entering the US market • INFOBANCO • Better people: Ajda Bevc • **and more** ...



The future of health and care is open

Across the openEHR community, we share a commitment to creating an open platform for patient-centred health data. Based on a standard architecture for future-proof health information, openEHR offers a path from silos of data to longitudinal, patient-centred care - for life.

openEHR

mission

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Welcome to our mission!

When we embarked on the journey of changing the healthcare landscape 15 years ago, it was all just an idea. An idea of providing better care for patients with the help of technology.

This idea was built on the understanding that data is for life while applications change. Therefore, we must build a strong data foundation, separate the data from applications, and centre the health and care delivery around the patient. While looking for the perfect way to do that, we discovered openEHR, the only international open health data standard designed for persistence that offers a path from silos of data to longitudinal, patient-centred care for life.

We believe that the ability to use data in an open way to facilitate sharing, collaboration, and innovation is the way forward. So now our work has become a mission. A mission of improving health and care by simplifying the work of care teams and accelerating digital transformation underpinned by data for life. Underpinned by open data, our low-code tools empower end users to quickly assemble their application experience while our design system ensures consistency and ease of use. By constantly developing our technology based on the digital health platform, our solutions solve the most pressing issues in healthcare.

The magazine you are reading is a compilation of everything we do. Together with our customers, our partners, and our friends. And our incredible team of more than 140 employees in Slovenia, the UK, Germany, and Spain. Altogether, we move boundaries in digital healthcare, and we are determined to continue to build digital health infrastructure based on open standards for the healthcare organisations of the future.

This is the Better mission, and I am happy to share it with you.

Tomaž Gornik CEO, Better

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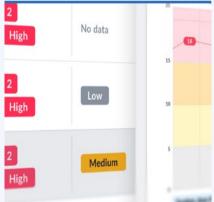
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openEHR and its increasing importance

Having just started this month as the CEO of openEHR, I have been invited to speak at a number of events about AI and the importance of open in this space. Many of you will have heard the buzz around large language models (LLMs), also known as generative AI, and there has been much written about their potential value, as well as the downsides, such as hallucinations.

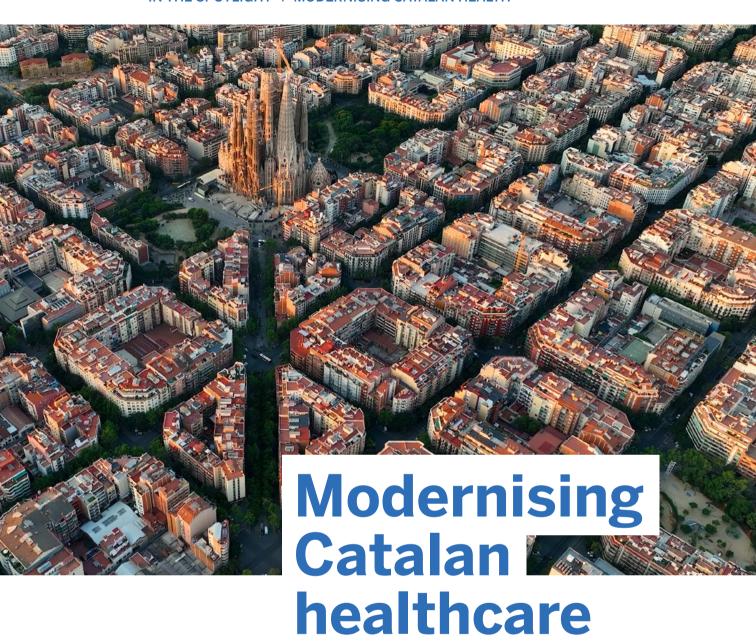
There is much emerging evidence that clean, consistent data is the key to the good performance of LLMs. Many parties, such as the IEEE, HippoAI, and GHDIF, have reached out to us at openEHR as they understand the importance of our work for the future. AI is only as good as the data it receives and is trained upon – so great data reduces the risk of hallucinations and false results.

Open concepts also extend to the training of AI, such as having standardised ways to describe the data sets and demographics used, all of which are enhanced with openEHR. We are also seeing the emergence of more Open AI models on the market (and no, Chat GPT is not an open-source model, despite the company being called OpenAI), as they are more transparent and supported by communities like ours. These provide more assurance to health systems and transparency in terms of how they are constructed.

Aside from AI, we are seeing a huge growth in geographical interest with openEHR affiliates being set up across the globe. This month. I have been assisting three new affiliates across the world, all of whom want to create better health data platforms for their citizens. The mistakes I and others have made in the past. which have led to data silos, are now being recognised, and countries are now valuing their data as a civic asset. Life sciences and research are also joining conversations, from making trials easier to finding rare disease patients, so there are many benefits to our approach.

I am really looking forward to working with this community to build the future infostructure for health and care. This will be the infrastructure that enables the future of healthcare systems.

Rachel Dunscombe CEO, openEHR International





Article published: May 2023 Image credit: iStockphoto, CatSalut Better Meds, an acclaimed medication management solution based on the openEHR standard, will be implemented in over 60 hospitals in Catalonia by a consortium led by T-Systems and Better. The implementation will establish a vendor-neutral health data platform and a medication management system which will serve a population of roughly eight million people.

The Catalan Health Service (CatSalut) covers a population of roughly eight million people, oversees Catalonia's public health benefits system, and is integrated into the National Health System of Spain. With a desire to build a patient- and data-centric longitudinal electronic health record and a vision of providing integrated care coordination, as a first step, Catalonia will establish a vendor-neutral health data platform and a medication management system which will be available to over 60 hospitals.

Together with T-systems, a world-renowned ICT and digital service provider, Better will provide its electronic prescribing and medication administration solution, Better Meds. Built on top of the Better Platform and based on openEHR, Better Meds allows hospitals and healthcare professionals to have an integrated therapeutic and clinical vision centred on the patient, minimising the risk of medication-related safety issues, avoiding redundant information entries, and allowing the professionals easy access to data, all leading to a reduction in the administrative burden on the staff.

The objective of the standardised medication management solution for Catalonia is to improve the experience of healthcare professionals in all areas with the effective use of technology. Better Meds medication management will be progressively installed in most Catalan public hospitals, starting with the first two hospitals, Hospital del Mar and Consorci Hospitalari de Vic.

Roko Malkoč, Better Meds Business Unit Director, said, "Many regions and countries lack patient-centred care and suffer from fragmented clinical data, which slows down innovation. We firmly believe that Better Meds can consolidate medication management data into a unified view, reducing the cognitive burden that comes from reconciling patient treatment. We are thrilled to collaborate with T-Systems, CatSalut, and hospitals in Catalonia as we work towards our global vision of a world without medication errors."

"Many regions and countries lack patient-centred care and suffer from fragmented clinical data, which slows innovation."



"This goes beyond the product.
CatSalut will not only obtain the new medication management solution but also get the chance to connect with a diverse community of Better Meds users from around the world, fostering a strong and vibrant network of healthcare professionals who will benefit from the solution. Moreover, we are quite happy for the opportunity to further enhance our product by adapting it and learning from a new market," said Božidarka Radović, Better Meds Product Lead.

"CatSalut will also get the chance to connect with a diverse community of users from around the world"



"This project will be instrumental in advancing towards integrated therapeutics and truly patient-centred care through a semantic interoperable. and modular solution," commented Dr Caridad Pontes García, Director of Pharmaceuticals at CatSalut. Dr Jordi Piera Jiménez, Director of the Digital Health Strategy Office at CatSalut, added: "By providing a common health data specification, based on openEHR, managing electronic health records and other healthcare data will be much easier. and more structured. All of Catalonia will benefit from the integrated and interoperable electronic prescribing and medication administration solution, and we are very eager to see this system spread even further."

Highlights of the Catalan Health System

- a population of 7,800,000 +
- Universal coverage all individuals and communities can receive the health services
- 15,000 M€ Catalan Health Service budget for 2023
- > 160 health care entities to provide health care services
- > 16,000 applications across the Catalan Health System
- 940 facilities that range from primary health care centres to hospitals and intermediate care centres

About CatSalut

The Catalan Health Service (CatSalut) oversees the public health benefits system in the Autonomous Community of Catalonia. The mission of CatSalut is to guarantee health care with public, comprehensive, and quality coverage for all citizens of Catalonia, all through an adequate adaptation of the offer to the needs of the population.



Jordi Piera Jimenez is the Director of the digital health strategy office at the Catalan Health Service (CatSalut) and one of the masterminds behind the new Catalan digital health strategy. We talked to him about the challenges of dispersed healthcare data, the benefits openEHR can bring, and the future plans for Catalonia.

Written by: Brina Tomovič Kandare Image credit: Eventphotography.com, iStockphoto

What is the single biggest challenge when it comes to healthcare data in Catalonia, and how is Cata-Ionia addressing this challenge?

The most significant challenge in Catalonia's healthcare data realm is the fragmentation of information across various systems and entities. This dispersed data hinders comprehensive patient care, decision-making, and resource optimisation. While we have a unified system for primary care called ECAP, the hospitals run almost 30 different EMR systems in our 69 hospitals here in Catalonia. Since 2006 we have been building a repository called the Shared Electronic Health Record of Catalonia. using interoperability standards, which has allowed us to exchange information across the public sector. Now after many years of going down that road, we have realised the exchange of summaries of information does not suffice to build longitudinal care pathways and to truly enable care continuity across healthcare levels and organisations. Because of this, we have decided to implement a unified, standardised data repository, for which we have selected openEHR as the common data standard. This repository will integrate data from diverse sources, enabling seamless information flow

across the healthcare network and allowing healthcare professionals to gain holistic patient insights. This will also allow us to develop and implement new innovations once for the whole region, and not 30 times (one per EMR product as it is now). The region is currently in the midst of this transformation with very big projects on the table, such as the new medication management system for the whole region.

Why did Catalonia choose openEHR when building the digital health strategy of Catalonia?

Catalonia opted for openEHR due to its open-source nature and flexible architecture, enabling the long-term storage of health-related patient information. "Data for life" as a concept, enabling true longitudinal healthcare patient records fostering patient-centric care. Unlike proprietary systems, openEHR allows customisation and scalability, aligning with Catalonia's vision for an adaptable healthcare ecosystem. Its robust data modelling capabilities facilitate the integration of varied datasets, ensuring interoperability and future-proofing the digital infrastructure. Also, we are leveraging the community and the number of ready-made models and implementations from which we can learn and share these experiences. The key benefit, as mentioned previously, is also allowing us to develop and implement solutions only once for the whole region, minimising the costs compared to a single instance implementation for each and every hospital or care centre. It also significantly decreases integration costs as well as maintenance and support costs, as the solutions are pre-integrated one with another, and we would be maintaining only one solution for all the regions.

How will the integrated and interoperable electronic prescribing and medicines administration solution benefit Catalonia?

Drugs are a big part of Catalan healthcare costs, going over 3 billion per year, meaning that anything related to it that can save



even a part of those costs means a lot in total numbers. Since 2003 Catalonia has had a unique system for ambulatory prescription of medicines which is fully connected to community pharmacies and used by all medical doctors within the public sector. Conversely, the prescription of intra-hospital medication is directly handled by hospitals themselves, when these internal processes should eventually be the same. This is why we have opted for Catalonia's integrated electronic prescribing solution to centralise medication management, significantly drive down the costs of the overall solution on a regional level, and improve patient safety and medication management efficiency. Real-time access to prescription data enables timely and informed decision-making by healthcare providers. Interoperability ensures the smooth transfer of prescriptions across care settings and pharmacies, reducing errors and enhancing patient outcomes. We also know that the healthcare and pharma industries will evolve, so we were looking for a scalable and flexible solution that would allow us to further modernise and extend the technology and follow the innovation path and evolution of the Catalan healthcare system.

What are the Catalan plans for the next five years, and how will they expand the system even further?

In the next five years, Catalonia plans to bolster its healthcare system by enhancing interoperability even further. Adding more central solutions based on openEHR that will be rolled out across the whole region and for all care providers. Telehealth initiatives will be expanded to ensure comprehensive healthcare accessibility, especially in remote areas. The region is heavily investing in research and development, exploring the potential of AI and predictive analytics. These advancements aim to enhance diagnostic precision, optimise resource allocation, and provide tailored, patient-centric care. Catalonia's future roadmap envisions a healthcare landscape driven by innovation, where technology optimises patient outcomes and operational efficiency. By leveraging cutting-edge solutions and fostering collaborative partnerships, Cata-Ionia aims to create a healthcare ecosystem that is seamless, responsive, and technologically advanced, ensuring the well-being of its citizens in the years to come.





We talked to Božidarka Radović, Better Meds Product Lead, and discussed our recent projects in Catalonia; particularly our efforts to centralise medication records from different hospitals into one accessible location. We also explored the advantages this will bring to users and patients.

Image credit: iStockphoto
Illustration by: Artur Felicijan

Could you please briefly describe the challenges associated with the current state of medication records across Catalonia?

Currently, medication record data in Catalan hospitals is stored in proprietary formats tied to specific applications, leading to issues such as duplicated prescriptions across different systems and limited sharing capabilities between applications. This situation has had a direct impact on the quality and structure of prescribing, and has been compounded by the existence of various versions of drug catalogues. All these factors contribute to fragmentation, making interoperability a significant challenge.

So, with our solutions, they will be able consolidate medication management across all Catalan hospitals?

Yes, in collaboration with our partner T-Systems, we will help CatSalut, the Catalan Health Service, to centralise medication management activities

"We collaborate with doctors, nurses, and pharmacists to design an intuitive interface and streamlined workflows."



"Better Meds offers several benefits that contribute to a more efficient, accurate, and safe medication management process, ultimately simplifying the work of healthcare professionals and improving patient outcomes."

by building a new architecture on top of our openEHR platform and then consolidating all the data and other essential components of the existing system into one single place. Through this single-tenant installation, a comprehensive drug catalogue can be shared across all of Catalonia. Prescriptions from every hospital will reside within the same tenant, and data will be aggregated in the openEHR clinical data repository.

One of the benefits will be fewer transcriptions when patients transfer from one hospital to another, right?

Yes, with our work, we aim to achieve a reduction in transcriptions when transferring patients, and enable BI reporting at both hospital and national levels.

Speaking about benefits, how will the medication management

system improve the work of healthcare professionals in Catalonia?

Possibly the most important benefit, and something I have already mentioned, is interoperability. This means that users can see and contribute to all of the patient therapies prescribed, and this is really a vast improvement, in all hospital environments: inpatient, outpatient, and day-case. If I were to mention outpatient prescribing more in detail, I would bring up MHDA (Medicació hospitalària de dispensació ambulatòria), and their outpatient hospital medication. Users will soon be able to create, modify, and preview MHDA prescriptions and MHDA forms for each prescription in a user-friendly process, which will minimise potential errors and increase efficiency. There is also the medication reconciliation module within Better Meds, which will enable Catalan clinicians

to accurately reconcile a patient's medication history and collect all of the necessary data for further patient treatment.

You have been working on this project for some time now. What have you learned from working with the hospitals in Catalonia?

I can say that healthcare professionals in Catalonia are very knowledgeable about medication management systems and passionate about digitalisation. We are amazed by their willingness to share their experiences and knowledge regarding hospital processes, both in clinical and technical domains. By shadowing medication-related procedures in their hospitals, we have identified some crucial areas in which Better Meds can improve patient safety and simplify the work of clinical staff, and we plan to implement these improvements as soon as possible.

Thinking about Catalonia, do you think this approach could also be a solution for other countries or regions?

Yes, I see many correlations, first with the Slovenian healthcare system. This approach could easily be adapted in our home country, which has roughly half the population of Catalonia. The NHS in the UK aimed to achieve something similar with ICSs and regions, and two years ago the same idea was also being considered in Wales. Given our current footprint in the above-mentioned countries and the valuable experiences we will gain from the Catalonia project, I am confident we can assist them with similar initiatives.





A bold step towards interconnected healthcare



Article published: May 2023 Image credit: Universitat de Barcelona

With the aim of amplifying awareness and advocating for openEHR technology as the future model for health data management, openEHR community, Catalan Health Service (CatSalut), and TICSalut Social Foundation organised a conference titled "No time to waste: building the lifelong, patient-centric EHR." The event has showed that the openEHR technology is a pioneering tool for creating a unique and patient-focused electronic medical record.

More than 250 people attended the conference, which was held in the Paranimf room at the Faculty of Sciences and Health of the University of Barcelona. Among the high-level international experts present, there were healthcare professionals, medical informatics experts, healthcare providers, researchers, authorities, regulators and service provider organisations.

OpenEHR is an international reference open standard created more than 20 years ago for the design of clinical health informatics models. The standard is specifically aimed at data persistence, with the goal of creating a patient clinical record that can be used throughout their lives. This technology allows for the elimination of data silos and for information to be stored in a clear. structured, and a well-modelled framework. In short, openEHR is an emerging technology that has the capacity to improve workflows and the quality of health data, and has a direct impact on improving medical care and the health of patients. Thus, it represents a paradigm shift, since it proposes moving from an architecture focused on applications to one focused on data.

During the debate, the importance of having good clinical data to improve the treatment and diagnosis of diseases, but the care of patients, was highlighted. Data is currently a digital "strategic asset", and something that must be financed in the same way as material resources (hospital centres, medical supplies, tests, etc.). However, current health information systems are deficient in this area. Patient data systems are often not interoperable between different institutions and, as a consequence, consultations and procedures are duplicated, and this directly affects the health of patients and the quality of medical care.



As **Tomaž Gornik**, CEO of Better and Co-chair at openEHR International, stated, "We have to separate the data from applications and put it in the centre. Thus, we will be able to simplify the work of healthcare teams and accelerate digital transformation supported by data that lasts a lifetime."

How to create a patient-centric record in openEHR?

In recent years, we have gone through three different phases: in the first, the monolithic system. there were different applications that stored the data in silos. In the second, an integration of such applications took place to make them more interoperable with each other, although some information continued to be lost along the way. Now, we are in the third phase. with openEHR technology, which allows data to be structured and modulated from the beginning, and focuses on the patient. Thus, as Alastair Allen, Board Member at openEHR UK, explains, "data is the key, and it is everywhere. When we have standardised data, we can use it to achieve more direct care, and improve services and research in health."

"Data is the key, and it is everywhere. When we have standardised data, we can use it to achieve more direct care, and improve services and research in health."



The implementation of openEHR technology: success stories

There are several successful cases of the implementation of openEHR technology in different countries, such as the United Kingdom, the Netherlands, Norway, Finland, Sweden and Spain. All have in common an improvement in data fluency and interoperability, thereby reducing the workload of medical teams. The regions that are betting on this technology are advanced in terms of the implementation of digital health solutions.

Similarly, Catalonia has taken a step forward. With the purpose of creating an interconnected electronic health record focused on patients and their data, and with the vision of offering integrated care coordination, CatSalut has given the green light to implement a vendor-neutral interconnected health data platform and a medication management solution for more than 60 hospitals. The medication management platform will be implemented by Better and T-Systems, and with all of this, Catalonia is becoming one of the most populated regions in Europe to opt for this innovation.

The initiative has been financed with the NextGenerationEU funds, and is being co-led by representatives representatives from Catalonia, Andalusia and Asturias to rethink the Spanish health information model. As Jordi Piera Jimenez, director of the Digital Health Strategy Office at the Catalan Health Service, affirms, "we have to convince the ecosystem of the need to advance in semantic interoperability: we need a mature system, firm leadership, including all the parties involved, be clear about what problems we want to solve and finally, be brave".





I didn't feel comfortable going with any other option than Better Meds.

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Lex Moon, Lead ePMA Pharmacist, Oxford Health NHS Foundation Trust











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Article published: April 2023 Image credit: Universitat de Barcelona

Empowering healthcare organisations in Spain with promoting open data



Better is entering the Spanish digital healthcare ecosystem and joining the Barcelona Health Hub (BHH), as well as other Spanish healthcare associations. The decision to focus on Catalonia was driven by Barcelona's growing importance as a development hub in the global digital health industry, and especially the growing openEHR community.

Barcelona is becoming a more and more important development hub in the global digital health industry and, as such, making Catalonia a leader in the digitalisation of healthcare. For Better, joining the Barcelona Health Hub, an association that promotes innovation in digital health, linking startups, health organisations, companies, and investors into an ecosystem of like-minded companies dedicated to impacting the healthcare systems, means having a more active role in the Catalan digital healthcare ecosystem.

As part of its membership in the Barcelona Health Hub, Better is also planning to offer its cutting-edge digital healthcare technology to startups in the BHH system, providing mentoring, training, and support, as well as free access to its digital health platform. This initiative will enable startups, system integrators, and ISVs, as well as care providers, to develop future healthcare systems and applications.

"We are excited to join the Barcelona Health Hub and to connect with like-minded companies in Catalonia, as well as the rest of Spain."

"Our goal is to empower vendors and healthcare organisations with the knowledge we have gained through the years and from global markets and to provide them with our technology in order to improve patient outcomes and drive innovation in the healthcare industry. We are proud to contribute to the rising digital health community in Spain and to help build the healthcare organisations of the future," said Jovan Pavićević, International Markets Director at Better.

With its architectural approach, the Better digital health platform allows care providers to develop systems and applications on their own, independently, and drive transformation at their own pace.

By being a part of the Infobanco project, a pioneer openEHR project in Spain on a regional level, Better is also taking a leading role in promoting the use of the openEHR standard in Spain.

The tenders launched by the Catalan government to procure a health data platform and regional medication management solution that needs to be fully compliant with the openEHR standard is a step in the right direction of building a new infrastructure around open data.

"In a desire to build a patient- and data-centric longitudinal electronic health record, and with a vision of providing integrated care coordination across the region, Catalonia is leading the way into the future. Better is proud to be a part of the growing openEHR community in Spain and to promote the use of this international standard," Pavićević also said.

Better is also pleased to announce its individual and corporate memberships in other healthcare associations, including the Asociación Salud Digital (ASD) and Sociedad Española de Directivos de la Salud (SEDISA), and will soon also join Sociedad Española de Informática de la Salud (SEIS). These associations represent like-minded healthcare professionals and organisations that are committed to improving healthcare delivery and outcomes for the better care of patients.



Article published: June 2023 Image credit: iStockphoto

Accelerating digital transformation in Germany

As a digital health platform provider, Better has joined the Gesundheitsstadt Berlin, a non-profit association dedicated to promoting public healthcare in the Berlin-Brandenburg region. This partnership signifies Better's commitment to advancing healthcare technology and enhancing collaboration within the local healthcare ecosystem.



By joining Gesundheitsstadt Berlin, Better strengthens its dedication to supporting the promotion of public health and care in Germany. Better's extensive expertise in healthcare IT solutions and innovative technologies based on open data will contribute to advancing medical research, development, and patient care. The partnership also aligns with Better's mission to accelerate digital transformation with innovative technology solutions, including their digital health platform and medication management solution.

Gesundheitsstadt Berlin is playing a vital role in improving public health by organising events, conferences, and medical initiatives, while also providing valuable information on health, demography, and medicine. The association aims to foster networking and cooperation among healthcare professionals and service providers in the Berlin-Brandenburg area, thus enhancing the overall quality of healthcare services.

By actively participating in the association's events and initiatives, Better will contribute to the advancement of healthcare practices and foster collaboration among industry

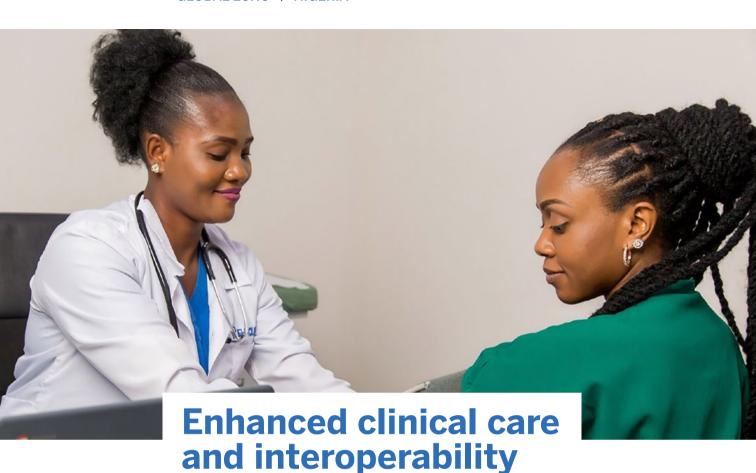
stakeholders. The Gesundheitsstadt Berlin association sees Better as a valuable addition to its network because of its expertise, its efforts to positively impact public healthcare, and also because it will share experience gained from several real-life deployments.

"We are excited to join Gesundheitsstadt Berlin, where we will be able to collaborate with like-minded organisations and healthcare professionals," said **Johannes Schmidt**, Head of Technology & Innovation at Better Germany. "Together, we can drive positive change in the healthcare landscape, improve patient outcomes, and elevate the standard of care in the Berlin-Brandenburg region," he added.

Dr. Daniel Dettling, CEO of Gesundheitsstadt Berlin, said: "We warmly welcome Better at Gesundheitsstadt Berlin! Metropolitan cities will become more important in the future when it comes to providing for an aging population. This requires the interaction of all medicine and care stakeholders. I am looking forward to working together. Let's make it better together!"

About Gesundheitsstadt Berlin

Gesundheitsstadt Berlin is dedicated to transforming Berlin into a healthy city by promoting public health, fostering innovation, and supporting medical research in the region. The association's efforts include organising health congresses, conferences, and various medical events, as well as implementing publicly funded research projects. By bundling and coordinating initiatives in the field of public healthcare. Gesundheitsstadt Berlin aims to strengthen an awareness of the importance of healthcare advancements among businesses, academia, and the general public. Through its collaborative approach, Gesundheitsstadt Berlin is playing a crucial role in driving positive change and shaping the future of healthcare in the Berlin-Brandenburg region.



EHA Clinics, a leading primary health care service provider in Nigeria, used the Better Digital Health Platform and its' low-code tools to develop EHACare, an ecosystem of workflow-driven tools to support clinical care, telehealth, home care, community health, continuous quality improvement, and clinical research.

sees light in Nigeria



Article published: May 2023 Image credit: EHA Clinics As a data- and guideline-driven healthcare organisation, EHA Clinics has decided to develop EHACare to design workflows and fully control the system on its own. The key benefit for them was the ability to build reusable content packages that can be shared across different applications, and to have an interoperable platform that can be customised according to their own requirements. This was in addition to being able to use standardised datasets and clinical guidelines which can be applied to various clinical settings, from acute outpatient, inpatient, and home care to community health outreach and digital health platforms.

The EHACare is being used in five EHA Clinics branches and in their Community Health programme REACH by more than 195 clinical personnel, currently covering 33.700 patients at the moment and still growing. In only 12 months, using Better platform and its low-code Studio, a small team of three was able to build an EHR with more than 80 clinical use cases. EHACare's first application is focused on standardising clinical workflows and improving the delivery of care in all five clinics, as well as their home care and telehealth clients. The solution is designed to integrate seamlessly with other clinical applications in finance, operations, the pharmacy, and the lab.

The convergence: partnering with Better

The requirement of the EHA Clinics was the ability to design their own workflows and to have complete control of the system. They needed an EHR system that was interoperable, with standardised datasets and clinical guidelines, and which was completely adaptable across different clinical settings, from acute outpatient, inpatient, and home care to community health outreach and digital health platforms. When inspecting the market, they learned that existing EHR systems could not accommodate these requirements, nor did the development platforms, which would require a lot of further development.

EHA Clinics found their answer in Better digital health platform. The platform provided all the necessary healthcare-specific features and low-code tools, as well as the infrastructure to develop a unique and comprehensive EHR system - EHACare. Low-code tools were instrumental in speeding up the development and customisation of EHACare, together with the pre-build openEHR content, which additionally accelerated the process.

The EHR, which was built from scratch following their specific needs, includes unique workflows and reusable content packages, is designed to be fully interoperable across different applications and is compliant with international standards.

EHACare's vision and achievements

"EHACare is an exciting system that supports our delivery of quality, impactful healthcare. Working with Better has enabled us to build our vision for the future of data-driven healthcare with an ecosystem of applications which are tailored to manage quality, provide exceptional customer experiences, and improve health outcomes," said Adam
Thompson, CEO of EHA Clinics.



"Working with Better has enabled us to build our vision for the future of datadriven healthcare."

"Normally, our market focus is on regional and national deals, or larger hospitals and trusts. By creating a more robust solution, and by using the low-code tools, we are now also able to support small teams that want to build something big. Seeing three people build an EMR with 80 use cases in 12 months leaves you speechless, and makes me incredibly proud of both EHA and our team. And

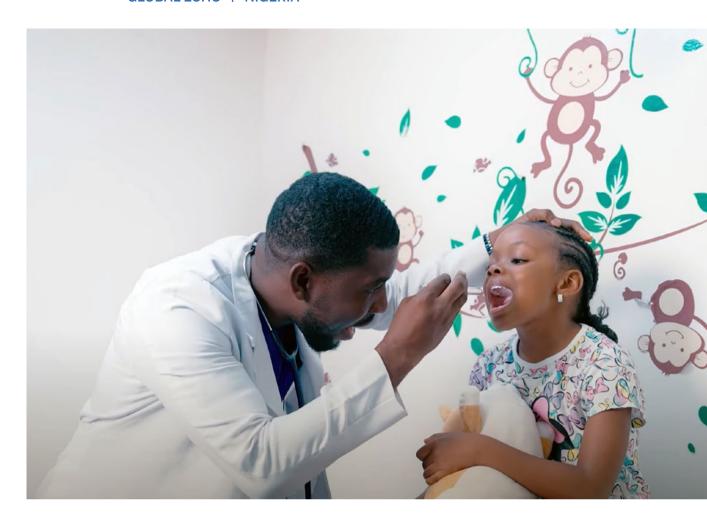
this was built from scratch, by the customer, with very little guidance from our side after the initial training. In the future, we will focus more on similar care providers, both in Africa and globally, by offering solutions also developed by EHA Clinics to jumpstart others' development even more. I am very optimistic about the future," said Jovan Pavićević, International Markets Director at Better.

About EHA Clinics

EHA Clinics is a world-class integrated healthcare service provider with locations in Kano, Abuja FCT, and Lagos, Nigeria. They are on a mission to deliver quality healthcare that is accessible, effective, and affordable. With their data-driven, quality healthcare delivery platform, they are transforming customer experiences and outcomes. They provide quality healthcare on a subscription basis for individuals, families, and businesses by integrating comprehensive primary care services with advanced digital

health solutions, convenient home care offerings, and state-of-the-art healthcare hubs. In addition, their REACH (Reaching Everyone with Accessible Community Health) team provides a community-based healthcare system designed to provide quality, affordable primary healthcare directly to the homes in underserved low-income, urban communities.





Background and challenges

The healthcare landscape in Nigeria, a country with 220 million inhabitants, 70% of which live below the poverty line and lack access to essential health services, faces several challenges. Among those are: the difficulty to access care, a lack of standardisation in clinical workflows, and gaps in the delivery of telehealth and home care services.

EHA Clinics operates across different clinical settings, including clinical care, telehealth, home care, and community health. The clinic has been on a mission to deliver quality, effective, and affordable healthcare by integrating comprehensive primary care services with advanced digital health solutions.

The EHA Clinics team faced the following challenges:

- The need for an adaptable clinical system to meet EHA Clinics' specific requirements.
- · The inability of existing "outof-the-box" EHR solutions to provide the necessary level of customisation, userfriendly interfaces, and costeffectiveness.
- The need for interoperability, standardised datasets, and clinical guidelines to fit within their varied clinical settings.
- The desire to optimise information sharing by building reusable content packages that could be shared across different applications.

"The ability to build content packages that can be shared across different apps is one of the key benefits for us."

George Ohia Product Manager, EHA Clinics



A path of innovation

Building EHACare was an ambitious project that involved initial planning, development, and implementation of the solution. A small team of three people, a product owner, a developer, and a designer, developed an EHR in just 12 months. EHACare currently has over 80 clinical use cases and supports various areas of care, including patient encounters, nursing assessments, doctor assessments for general, dental and optometrist consultations, laboratories, and prescriptions.

During the development process, EHA Clinics applied both standard archetypes from the international openEHR Clinical Knowledge Manager (CKM), and created new ones to accommodate their specific needs. The usage of prebuilt models was immense as of the 159 archetypes used, only 12 were newly created. This means that 90% of content was reused from CKM, demonstrating the power and utility of the openEHR model in promoting interoperability and content sharing globally.

The rapid development cycle was made possible due to the ease-ofuse and flexibility of Better's lowcode tools, which quickly allowed for the building of workflows that were considerably more efficient.

The time to build a form varied, depending on its complexity, but a simple one took between one and six hours, while a more complex one can took three or more days.

During the implementation process, EHA Clinics also overcame challenges related to integrating EHACare with existing clinical applications in finance, operations, the pharmacy, and the lab, ensuring a seamless transition.

To ensure a successful implementation, Better and EHA Clinics worked together closely, especially during the initial training and onboarding phases.

The impact

EHACare has drastically changed the workflows in EHA Clinics, as the healthcare professionals emphasised that EHACare supports quality and impactful healthcare.

The system is now being used by more than 200 clinical personnel across 5 EHA Clinics branches and their Community Health program (REACH) which currently covers more than 130.000 patients.

The impact of EHA Care

- Seamless integration with other apps for operational efficiency.
- Transformed healthcare delivery via enhanced clinical workflows and access to information.
- Clinicians and their inputs are integral to the development process.
- Real-time data and insights for efficient decision-making and personalised patient care.
- Improved patient outcomes
- Agile workflows with lowcode development.

Evolution and expansion

EHA Clinics' transformative journey does not stop here, as they have ambitious plans to further expand the scope and utility of EHACare. The Better digital health platform will continue to play a crucial role in enabling future developments, thus emphasising the sustainability of EHACare.

Future plans include the implementation of dedicated workflow tools for the quality management teams as well as the home care and community health teams and other care settings.

The benefits of choosing a digital health platform:

- Low-code tools to provide the flexibility to swiftly build forms and use cases, and customise workflows.
- A robust and scalable back-end architecture and data layer.
- Extensive security measures to protect sensitive patient data.
- The implementation of standardised datasets for data persistence to ease data exchange with other platforms.
- A set of pre-built clinical content to accelerate the development process.



Other key future developments

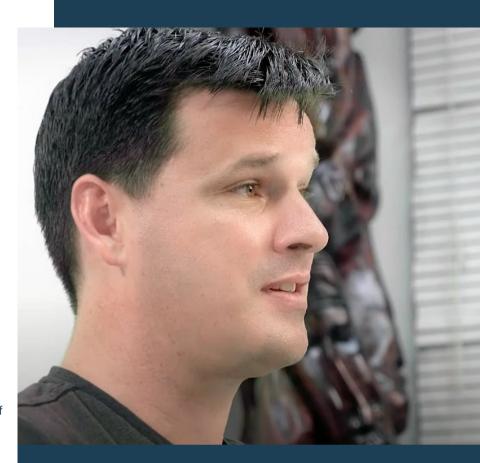
- The implementation of dedicated workflow tools for the pharmacy, nursing (inpatient care), home care, telehealth, and community health teams.
- The integration of Care Plans, Clinical Guidelines, SOPs, and Clinical Decision Support across various applications.
- A quality management application to support various management tasks related to chart reviews, clinical audits, and the tracking of quality indicators.
- The creation of a research platform and health observatory for analysing health outcomes and targeting improvements in key areas such as the early detection of cancer and the management of chronic diseases.



EHACare is an example of a customised EHR system that meets the specific needs of a diverse healthcare provider. It showcases how the intelligent use of innovative digital tools, such as a digital health platform, can revolutionise healthcare delivery.

Through the effective use of Better digital health platform, low-code tools, and the openEHR standard, EHA Clinics has built a robust, scalable, and adaptable EHR system that directly addresses their unique needs. It has significantly advanced their mission to provide quality, accessible, and affordable healthcare.

The successful implementation of the EHACare system shows what can be done with the right digital tools, dedicated teamwork, and a patient-centred approach. It shows how innovative solutions can be applied to address real-world clinical needs and showcases the potential of using digital healthcare solutions to achieve the vision of making healthcare accessible and providing better care for patients.



Innovating healthcare delivery

A conversation with Adam Thompson, CEO of EHA Clinics. He is an innovator, strategic disruptor, and transformation specialist who brings a unique perspective in shaping new ideas to tackle the most significant global challenges.

Tell us a bit more about EHA Clinics and what do you do.

EHA Clinics was started in 2018. It came out of the work I was doing was doing with my other co-founder, Evelyn Castle. We created an organisation called eHealth Africa, and for about 15 years, we worked across the public health spectrum, looking at how to strengthen health systems and do much

needed work in the health space. But we had a perennial challenge with our own staff and our friends and our family members, where people were either getting the wrong diagnosis or even, in many cases, being injured by using the healthcare system, regardless of how much money they paid for private or good insurance.

And then my wife got very sick. I was someone that had almost unlimited access to the healthcare system, and I could not solve her problem. And it got me really frustrated. Eventually, she had to leave the country, and when I came back from that trip, I spoke with our colleagues and said: This is just enough, we need to find a solution to this.

So, we decided to build EHA Clinics as a platform around primary care to deliver quality healthcare and make quality the centre of everything we do. And it required a ton of data systems, logistics systems, and training systems. That has been our journey so far, and we have been expanding over the last couple of years and increasing the reach of what we do within our healthcare space as well.

How many clinics do you have today, and how many patients have you covered?

We have covered about 130,000 patients to date. We have four clinical hubs, and we have a community health team as well that is in four different communities. We are covering large numbers of individuals.

It is a big business decision as a care provider to build your own EHR, based on the platform approach, to drive and deliver your own system, instead of going for a readymade clinical system from the market.

There are a few things that led to that decision. The first was looking at the existing market in terms of the providers of EMRs, EHRs, and health management systems. We have designed our clinics to look towards the future. How is healthcare going to change over the next five or ten years, and how do we start building and changing those systems now? Most EMRs are built for yesterday, for the health system of the past. We needed to find a way to work with a system that we could grow and adapt to the way care models are changing. Today, more care is happening at home, and not necessarily in the clinic. There is a lot of digital health and telemedicine. We wanted to develop a system that we could build on, an EHR that is

"We wanted to develop a system that we could build on, an EHR that is going to be with us in the future."



going to be with us in the future, and not have to work and fit our models into the EMRs of vesterday.

The second thing was looking at the platform approach because we wanted to build a healthcare system where we could deliver our own care. We wanted to build a healthcare delivery system that works in our clinics and our models, but also helps lift the rest of the healthcare market up a notch. We knew that other health care providers, whether they were individual clinics, other small providers, or home care providers, would need this infrastructure, and that they were going to need the data system. We wanted to use the platform approach that Better provides so that, as we added on and partnered with other clinics and providers, we could bring them onto the same platform, thereby extending the coverage of what we were trying to deliver in a broader sense as well.

You mentioned primary care, so is this the general practitioner user base?

In Nigeria, we don't have many doctors compared to the population. The demographics have been changing, and many doctors have been leaving Nigeria and Africa to go to the UK and Canada. We have designed our system with doctors and nurses in mind, but also keeping in mind that some of that basic care is transitioning into nurse assistants

and physician assistants, what we call community health or social workers. Our care is delivered across this entire spectrum, and more and more of the healthcare tasks and assessments are being handled by other healthcare professionals, not just GPs.

And what is next for you? Will you add new use cases? You mentioned cooperation with other care providers, does this mean in Nigeria, or in other countries as well? What are your plans?

We still have a lot of other use cases that we want to to cover. As our main focus is delivering and managing quality of care, the next set of tools we are building out has a lot to do with decision support.

We are also looking at how AI fits into some models on the analysis and decision support sides. Additionally, we are building many quality management tasks and assessments, from scoring chart reviews to algorithms, all of which help us identify prescribing errors with antibiotics and more. We are looking at more guided types of tools on the community health worker side too. We want to refactor some of the tools to be more of a step-by-step kind of guide for community health workers through collecting data and making a diagnosis in a very specific way. And, we are also looking at onboarding other people to use our tool so other private care providers can use our platform. We are currently discussing this with some state and private health insurance companies to see how we can extend the platform to cover some of their use cases and patients. I have been very inspired by the OneLondon idea, so I have been discussing with some state governments about doing a citizen health record, like the OneLondon universal care plan idea. We have a lot of ambitious ideas to take this forward.





One year after the launch of the Universal Care Plan across London over 24,000 new care plans have been created on the platform and frontline staff have viewed them over 300,000 times. This is helping to ensure people get better personalised care and support and that their care preferences are being respected.



Care Plan

Article published: September 2023 Image credit: iStockphoto The Universal Care Plan (UCP) was launched a year ago and was deployed in just seven months. It is a dynamic integrated care planning solution that enables every Londoner to have their key health and social care information, support network, and preferences for wishes regarding their care digitally shared with healthcare professionals across the Capital. The technology, implemented by OneLondon and provided by Better, a leading supplier of openEHR technology, supports a population of approximately 10 million people, five Integrated Care Systems (ICSs), more than 40 NHS trusts,

1,400 general practices, and 33 local authorities.

Initially supporting end-of-life care planning, which is an area that often falls below expectations across England according to a report by The Healthcare Safety Investigation Branch, the Universal Care Plan enables critical patient choice information to be easily captured and shared across all point-of-care systems. It is helping to ensure that more patients receive the care and outcomes they desire when they reach the end of their life including being able to die in their preferred setting.

Previously, care plans were not consistently connected or accessible between care providers. However, with the implementation of the Universal Care Plan, patient care and treatment preferences can now be easily viewed by health and care professionals across London's vast health and care network.

Since its inception, 70% of people have been able to die in their preferred setting. Of those with a Universal Care Plan in place, 32% died at home, 30% in a hospital, 29% in a care home, 7% at a hospice, and 2% in other settings. In London, on average, more than 50% of people have traditionally died in hospital.

More than 24,000 new personalised care plans have now been created, and health professionals have viewed the care plans over 300,000 times. The high levels of engagement is a result of integration with the major systems in use across London's care providers, including the London Care Record, EMIS, SystmOne, Cleric ePCR, and Adastra. Further integration is either underway or in the planning stages for Epic, Rio, and Cerner Millennium.

This year, the Universal Care Plan will integrate with the NHS App, so patients will be able to access their care plans and link with a GP data system, in order to provide access to medication and allergy data. Work is also underway to launch the platform within the National Record Locator this year. This means that Londoners with a UCP care plan will have their preferences and wishes of care accessible to urgent care services regardless of their location in England.

While the UCP currently supports pathways for urgent and end-of-life care, following its success and positive feedback from healthcare staff, the clinical networks across London are currently engaged in expanding its use to other areas of care, including supporting patients with diabetes, dementia, and cardiovascular disease. There are also extensive opportunities to employ it across many other areas, including sickle cell disease and asthma, and for supporting patients with frailty, mental health needs,

"Having the UCP as a digital enabler for personalised care planning has been and will continue to be a huge game changer for Londoners and healthcare professionals."

learning disabilities, and autism, as well as for supporting children and young people.

The realisation of this goal has been made possible as OneLondon's mission for open data, open standards, and open platforms continues to scale beyond London, meaning that data will truly follow the patient.

Joseph Fraser, Head of Personalised Care Expansion in London, NHS England said: "Having the UCP as a digital enabler for personalised care planning has been, and will continue to be a huge game changer for Londoners and healthcare professionals. We are already seeing the positive impact that the UCP is having on people who are on an End-of-Life Care Pathway, and I am excited to see how the UCP is now evolving to support a wider number of people who are on different clinical pathways and at different stages of their lives. The UCP supports the NHS Long-Term Plan surrounding personalised care by valuing people as experts in the planning and management of their own health and well-being. This then ensures that the pathway developed to support them actually means something to them, and in turn improves the chances of successfully supporting them."

Gary McAllister, Chief Technology Officer and National Executive Director for Technology Strategy, Architecture and Standards at NHS England and OneLondon, said: "Just in its first year the Universal Care Plan has already made a huge positive difference to the lives of so many people in the Capital. It really showcases how technology can transform healthcare for the benefit of the public and I am excited at how OneLondon and Better will develop this further in the years ahead. The UCP platform provides almost endless opportunities so it is great that work has already begun on looking at how this might also support people with dementia, frailty, diabetes, sickle cell and other long-term conditions."







We sat down with Gary McAllister, Chief Technology Officer and National Executive Director for Technology Strategy, Architecture and Standards at NHS England, to talk about the platform approach that is unifying healthcare across London, the vision they have of becoming the healthiest city globally, and about the challenges that came along the way.



Written by: Brina Tomovič Kandare Image credit: Aleš Beno, iStockphoto

You said that healthcare can only survive with technology and digitalisation. How far are we on the road to digitising healthcare, and what challenges remain?

We have come a long way, and shared care records, remote monitoring, wearable technology, patient engagement portals, and many other digital initiatives are all making a really positive difference now. But we still have a way to go to maximise the potential benefits of the technology within our health and care system, and this journey never really ends, thanks to the development of new innovations and new opportunities like Artificial Intelligence.

Our key challenge is doing more to create a digital ecosystem where the patient is truly at the centre of the workflow and all decisions. We need to focus on reducing the variability of user experiences when interacting with the healthcare information

"We need to break down barriers and enable communication between the systems." system, making everything appear as a unified system. Interoperability is vital if we want to avoid siloed systems and information islands, which can exist independently. We need to break down barriers and enable communication between the systems. Getting this right will help ensure that healthcare IT systems and associated services work - for care teams and patients.

How do you make digital change happen in such a complex system as OneLondon? What does the future look like if the challenges you spoke of are overcome?

Collaboration, design, and user-centricity are the most crucial factors for success. This means reaching a point where things work for people, with patients at the centre of all decisions.

Central to this is public involvement, and in the Capital, we have a good track record of working with Londoners. We learned from them that they expect their data to be shared for direct care purposes, and the same goes for academic research and the development of new treatment methods. As long as patients benefit from such research, they are not overly concerned about how their data is used. However, they are more worried about their data being

used for commercial purposes. So, there are still challenges regarding data management and privacy, and it is vital that we continue to work with citizens to ensure we create products and services which can be supported with data.

Data really is the key to the future. By collecting data on population health and other social determinants, we can direct healthcare programmes to these areas. Even just monitoring changes in certain medical conditions can make a significant impact. Taking asthma and air pollution as an example, a continuous flow of data would greatly influence asthma management in London and the rest of the country.

"The ultimate goal is to provide better, digitalised healthcare and enable personalised care planning for patients across London."

"We need to have a more proactive system that will improve health outcomes for all of London's communities."

In London, you have a vision of becoming the healthiest city globally. What have you already done to achieve this goal, and what are the next steps?

We have accomplished a lot, but there is still a lot of work to be done. We need to have a more proactive system that will improve health outcomes for all of London's communities.

Joining up data across London is absolutely key to this and to meeting the needs of Londoners as a whole – whether through improved direct care and population health management, better system planning, or enhanced research and development capabilities.

Good progress has been made joining up data to deliver systems like the London Care Record, the Universal Care Plan and DiscoverNow.



"It is important that we continue to focus on the person at the centre of our care system."

London also made a successful bid for national funding to support the establishment of a Sub-National Secure Data Environment (SN SDE) which will support research across the Capital.

Taken together, this provides a great opportunity for the Capital's health and care system to work together to develop a world-leading resource for health and care improvement.

In unifying healthcare across London, you started with end-of-life care. What are the other use cases that you will implement?

The Universal Care Plan platform is already making a huge difference in helping to ensure that more patients receive the care and outcomes they desire when they reach the end of their lives. Through Better's open digital health platform, patient care and treatment preferences can now be easily viewed by health and care professionals across London's vast health and care network.

While the UCP currently supports pathways for urgent and end-of-life care, following its success and positive feedback from healthcare staff. scoping work is now underway to expand its use to other areas of care. including the support of patients with diabetes, dementia, and cardiovascular disease. There are also extensive opportunities across many other areas, including sickle cell disease and asthma, for supporting patients with frailty, mental health needs, learning disabilities, and autism, as well as for supporting children and young people.

The ultimate goal is to provide better, digitalised healthcare for all conditions and population groups across all health services and enable personalised care planning for patients across London.

You have adopted a digital health platform for care planning. Why

did you decide to go with the platform approach, and will you implement this approach for future projects both in London and widely across the NHS?

Due to the complexity of London's health and care ecosystem and the disparate nature of London's clinical networks, it made sense to leverage a platform approach. A platform approach enables our clinical networks, which span over 40 NHS Trusts, to work together on a single system, integrated with existing point-of-care systems, which reduces variation while improving the quality of the care we provide.

Now, with your national role, are there any lessons that you have learned in London that you could apply more widely across the NHS?

It is important that we continue to focus on the person at the centre of our care system. The UCP platform has provided us with a regional opportunity to do this for London. This approach and thinking now need to be scaled nationally to the benefit of everyone.



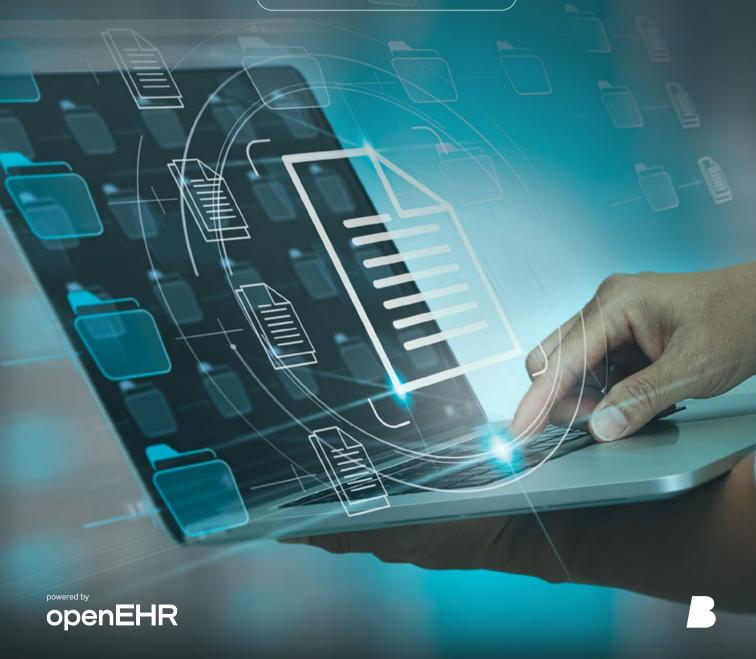




Designed according to openEHR specifications, it's your one-stop solution for streamlined care. Say goodbye to scattered records - our repository offers a comprehensive and secure storage system that ensures real-time access to structured and unstructured electronic health data.

Explore the possibilities today.

www.better.care/platform





Article published: May 2023

Supporting The Christie's digital strategy



The Christie NHS Foundation Trust is the largest single-site cancer centre in Europe, treating more than 60,000 patients a year. The trust is adopting a platform-based approach and moving to a data-centric model with openEHR at its core.

The Christie's strategy involves modernising systems from a previously siloed-state where data was locked within applications, to a data archetype model which facilitates a patient-centric approach. Better low-code tools, an integral part of the Better digital health platform, have been used to support the modernisation of The Christie's Electronic Health Record and the transformation of their clinical, patient, and cancer research services.

Better platform enables data to be separated from applications and structured in an open format, unifying cancer data into a single patient-centric record that is accessible in real-time to internal and external users. The low-code tools environment enabled the team at The Christie to develop 24 ePROMs,



including a scheduler notification using a texting service that plugs into its clinical portal, in just four months. Since its deployment, unnecessary outpatient appointments have been minimised by more than 70%.

"So not only do we save clinical time, 90% of patients no longer have to travel back and forth to The Christie. We are only actually seeing 10% of these patients at The Christie," said Adam Ansell, Product Lead at The Christie NHS Foundation Trust.

The solution is enabling The Christie to gain complete control of its data, with one-time building and re-use of forms, components, and data. The Trust will also be able to share models and technology with other NHS organisations, and use the real time clinical data for research, supporting over 300 clinical trails each year.

The Christie also selected Better Meds, an electronic prescribing and medication administration solution which will be able to facilitate a seamless embedded user interface and allow clinical staff to access the medication data from within the EHR.

The solution will provide a better user experience and improve efficiency.



million people served



satellites across Greater
Manchester



60.000 patients a year



600+ clinical trials annualy

Benefits in practice

- 66% of time taken to conduct telephone review saved.
- 28% of total review time saved.
- approx. 90% of patients no longer require a formal appointment.

With Better Meds, prescriptions will be easily consolidated from various sources, streamlining the time-consuming processes. This will allow healthcare professionals to effortlessly review and manage prescriptions in one centralised platform, simplifying the process and saving valuable time.

The process of prescribing medication will also improve with order sets, centralised solution for reviewing and managing supply requests, and task lists. "With all these features of Better Meds, healthcare professionals can focus and spend more time with patients, rather than doing all of the processes themselves," said Božidarka Radović, Better Meds Product Lead.



Article published: August 2023 Written by: Veronika Stepanova

The hospital at home: bringing treatment to patients' doors



The "hospital at home" model of care has gradually become the focus of discussions across the UK and the NHS. Set to deliver quality care to patients even outside the hospital, that is, in the convenience of their own homes, the popularity of this approach is growing, with integrated care systems (ICS) set to establish a healthcare infrastructure that can accommodate and support a specific number of virtual beds for patients in need of remote medical care by the end of 2023.

The model can offer several benefits, including improved access to medical services, reduced strain on physical hospital resources, and enhanced patient convenience and satisfaction. Moreover, it minimises the disruption to the patient's daily life. However, while it is proving to be effective in managing various medical conditions, promoting better recovery rates, and improving overall patient satisfaction, there are certain concerns that we need to be aware of.

The following key points require careful consideration.

- Interoperability: Integrations between ePMA, EPS, PAS, and EPR systems are crucial, as the virtual ward teams need access to up-todate medication and patient data.
- Connectivity: Sufficient signal strength is required for home monitoring equipment and there has to be access to patient records

 this can also be solved with an offline mode for ePMAs.
- Responsibility: Complexities remain as to where the responsibility lies with medication management, so the right processes and governance have to be established to ensure that patient safety is maintained.
- Staffing: Staff resources represent significant barriers - the hospital at home has to be adequately staffed as well and caregivers have to be supported with training and resources.
- Patient eligibility: Clear criteria for admitting patients to a virtual ward needs to be established, and this model of care cannot be applied to all patient cohorts and home environment conditions.



The hospital-at-home approach may not be suitable for all patients or medical conditions, such as, end-of-life patients. Furthermore, access to facilities, equipment and interventions may not be available in all home settings. It is therefore essential in order to assess each patient's medical needs in order to establish whether this option is an appropriate one.

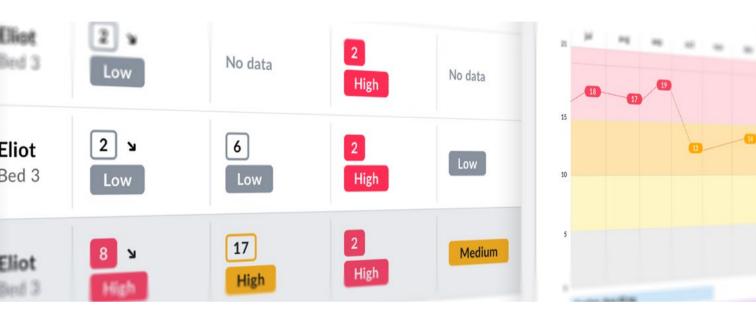
Despite these concerns, this model holds immense potential to transform healthcare delivery, increase patient satisfaction, and optimise resource utilisation. Addressing these challenges and incorporating best practices will be essential for unlocking the full benefits of this innovative approach to healthcare, making use of the opportunity to increase patient eligibility and improve safety.

By leveraging modern technologies and patient-centred care models, this represents a promising solution to address current healthcare challenges and to deliver more efficient and effective medical services.

This topic was discussed at the Better Meds event in February in London. You can read more about it in the report:



Building a design system for digital solutions in healthcare



Having a design system allows us to be more efficient, consistent, and ready to scale, while also enabling designers and developers to collaborate and communicate better.



Article published: June 2022 Written by: Ajda Bevc and Urša Jerkič

No more inconsistencies

Better exists to simplify the work of healthcare teams, so it only seems logical that we would also strive to simplify the work of our design and development teams. But we weren't.

Every time we wanted to design a new screen, we started from scratch. This was not only time-consuming but it also left us with inconsistencies in the design. There was no library of components to choose from and no proper documentation on how these components should behave. Not only were designers frustrated because of this, but developers also had to do extra work. Therefore, we decided to create a design system.



So what is a design system?

The simplest way to explain a design system is actually with everyone's favourite childhood toy, LEGO. Every LEGO piece is compatible with every other because of their universal system of design. Thus, pieces can be assembled into nearly any imaginable structure - just ask your kids.

A design system for interfaces is also made up of basic elements or blocks, such as icons, buttons, form fields, and many others that can be combined differently depending on what we want to build. Each of these blocks is not only designed but also written in code. This means that when you're designing a screen or updating an old one, all the pieces you need are already there.

A design system is a collection of reusable components, guided by clear standards, that can be assembled together to build any number of applications.

- Invision

The benefits of having a design system

In a fast-growing company, design also needs to be fast, and easy to scale. Thus, implementing a design system helps with the following:

Greater efficiency: Since designers and developers no longer waste time building components from scratch, but rather re-use components, the design system increases its efficiency.

A familiar user experience:

Principles and rules on how to build complex components, help create a unified look and consistent user experiences across products, making users "feel at home" when interacting with them.

Building at scale: Greater efficiency and consistency of design allows us to build products at scale.

Better communication: The design system is like a language which is shared by designers and developers, so there is less chance of miscommunication.

Focus on the user: Once design and development are streamlined, designers can shift their focus from building an interface to where it really matters – **improving user experience**.

A modular design system for healthcare

All the big names like Google, IBM, and Spotify developed their own design systems that are publicly available, so we could have opted for any one of them. However, those design systems, although an invaluable asset, tend to be more generic and offer basic solutions rather than specific — and the demands of developing digital products for healthcare are very specific.

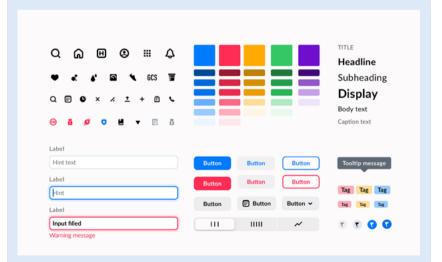
We saw an opportunity to start building a design system created especially for healthcare. This means that every decision is made with the awareness of the environment our applications are used in. We also follow and adapt useful guidelines from healthcare organisations that already have their own design system, such as the NHS.

The 4 parts of our design system

Better design system consists of four parts, each designed and tailored to provide a consistent experience in using our clinical products.

1 - Application building components

This part covers the components and patterns we need to swiftly build new applications. We take special care of these building blocks, not only in how they look, but even more in terms of how they behave and interact. Equally important is the so-called microcopy, like rules on naming actions and labels or how to write helpful tooltips.



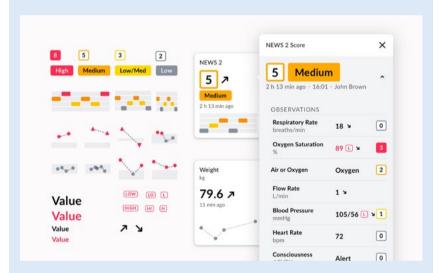
A look into our basic application building components - the building blocks that help us build complex patterns faster.

2 - A clinical data visualisation system

What really sets the Better design system apart is its clinical data visualisation system. Clinical data visualisation is the graphical, user-friendly representation of patient information and data. With such visual elements as charts and graphs, data visualisation helps clinicians to grasp and understand trends and patterns - and, ultimately, deliver better patient care.

Following our design system principles, we designed a set of flexible and generic components which can show a massive variety of clinical data. These easy-to-re-use building blocks can display vital signs, lab analyses, scores, prescribed medications, orders, documents, and more.

The clinical data visualisation system will be later executed in code and used in our clinical applications. We are exploring the possibility of offering the building blocks in an online marketplace, together with our low code view building tool, which will allow clinical content to be published and shared among the community.



Snippet of our clinical data visualisation components and their use in clinical concepts.

3 - Clinical forms



Our form building tool in Better Studio is equipped with tips and guidelines for building better forms.

A special place in the Better design system is dedicated to clinical forms, which are designed for clinical content, and are for use in clinical settings. This is not a common practice in other design systems, however, forms are an essential tool for collecting data in healthcare, so we dedicate a lot of our time perfecting them to be simpler to build and safer to fill in for end-users.

We also prepared a "how-to" guide for creating user-friendly forms in the Form Builder, a powerful tool for designing forms in our low-code development environment, Better Studio.



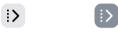
























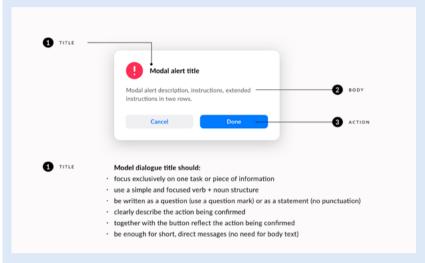






4 - A content style guide

We are also in the process of establishing rules for non-visual elements, like the tone of voice and writing rules. A content style guide will help us write in a clear and consistent way across products. It will bring content consistency, and brand consistency and save everyone's time.



The content style guide for notifications and alerts has a precise rule to ensure that the user is comfortable when resolving a modal dialogue.

To start with, we tackled notifications and alerts, as these were really messy and didn't contribute to a good user experience. Rules were written for each notification type, followed by the good-old "Do" and "Don't" examples.

Our content style guide will evolve significantly throughout the year.



Created by a diverse team

Our design system team is small, but each member has a unique set of skills: from UI and UX designers and developers to UX researchers and UX writers. It is a place where all these profiles meet and do their magic.

While designers are constructing new components and patterns or improving old ones, developers are transforming them into code, and writers are giving us rules for how we should sound, from how a button should be named to other, larger concepts.

The work is never over

The design system is never complete and our work is never done. It is a living and breathing entity, meaning that it will require ongoing maintenance and improvements. And that is something we are looking forward to.

Component-based design can support the faster, more affordable, and more easily scalable development of digital products for healthcare professionals. So, we invite you to join us on the journey of creating Better design system — with significant improvements we achieved and some wrong turns we had to take to get there.



Further readings

https://www.nngroup.com/articles/design-systems-101/

https://carbondesignsystem.com

https://principles.design/examples/ nhs-design-principles

https://material.io/design

MedsEDU



BRIDGING THE GAP BETWEEN ACADEMIA AND CLINICAL PRACTICE

MedsEDU helps universities train students about the medication management they will be exposed to in their future clinical practice. We can help students to learn about the principles of prescribing, reviewing, and administering medication electronically, while exploring the patient-safety aspects of the technology.





Trusted by the top European universities

















Article published: March 2023 Written by: Alastair Allen

Why are healthcare providers increasingly adopting a digital health platform?

Last year, Better was named a Representative Vendor in the 2022 Gartner® Market Guide for Digital Health Platforms. We are proud to be recognised by such a well-respected organisation, and we are committed to contine improving our digital health platform to provide the best possible healthcare experience for both citizens and health and care professionals.

"The Digital Health Platform will emerge as the most cost-effective and technically efficient way to scale new digital capabilities within and across health ecosystems and will, over time, replace the dominant era of the monolithic electronic health record (EHR)."

One thing the pandemic taught us is that an accelerated digital transformation in healthcare is possible. Organisations that were able to respond quickly to the initial wave and subsequent variations were often those who had the technology platforms that enabled innovation in areas such as patient engagement, data analytics, and virtual care.

This was possible because of the independence that well implemented platforms provide – they put the organisations in control of their transformation without a dependency on third-party vendors. At the core of this are good data and the supporting platform tools which allow the data to be used in a secure and governed way, and to quickly solve business problems.

However, the pandemic was just the tip of the iceberg. Demand on front-line services is at a record high and the under-resourced workforce is facing growing pressure. To address these challenges, healthcare providers need to accelerate the pace of

clinical and business transformation and are increasingly adopting a digital health platform approach to support this.

Gartner describes the digital health platform as "a new architectural approach to deploy digital capabilities using modern cloud services rapidly". They highlight that while this represents a major shift in how organisations will build and buy applications, it will also allow them to quickly realise value when responding to "strategic imperatives and external uncertainties".

Read the article, where Alastair Allen explores why healthcare providers are increasingly adopting a digital health platform (DHP) approach, he looks at how Gartner defines a DHP, and dives inside the Better DHP to understand how its technical capabilities helped it make the Gartner market guide.

Read the article



SNOMED concept linker streamlines information retrieval



We talked to Robert Tovornik, a data scientist at the Better Innovation Lab, who was on the team that developed the SNOMED concept linking technology.

Robert was also part of the team that took part in the research project DisTEMIST (DISease TExt Mining Shared Task) which looked at large-scale biomedical semantic indexing and question answering, and for which the team ranked second in the disease linking to the SNOMED Clinical Terms category. Read more about this groundbreaking technology and about what the Better Innovation Lab really does in the interview below.



Written by: Brina Tomovič Kandare Image credit: SNOMED Intl. Photography by: Artur Felicijan

What do you do in the Innovation lab? What have been your latest achievements and innovations?

The role of the Better Innovation Lab is to track new and upcoming technologies, study them to the point of understanding and, when needed, find ways to utilise them as a part of our products. Since we have learned that the best way to understand a technology is through its application, we develop and test different potential use cases as proofs-of-concept, on the side, as part of the innovation process. By doing so, even the less imaginable ideas become tangible and more easily presentable. Then through an introduction to a broader audience, we attempt to spark further interest in those who might most benefit from the technology.

As a data-first focused company, our solutions revolve around bringing structure to the data. The data structure is, to some degree, easily imposed upon new applications through system design. However, the healthcare domain holds vast amounts of its data – by

some estimates around 80% - in unstructured, free-text format, represented as clinical notes, medical reports, and other items. Finding relevant information in these types of documents can be an extremely time-consuming task, but utilising hard-to-find information is viewed as one of the most fundamental challenges in transforming medical care, with the goal of improving patient outcomes. Therefore, most of our recent attention has been focused on Natural Language Processing (NLP), a field that offers established techniques to give insight into document data. Combining NLP techniques with SNOMED Clinical Terms, produced our latest innovation - the "SNOMED concept linker".

What is SNOMED concept linking and what kind of technology does it use?

SNOMED concept linking is a recently developed data processing technique. It takes any form of a free-text clinical document as input and returns a list of identified clinical concepts. Clinical concepts,



including illnesses, disorders, medical procedures, and other clinical entities, are all identifiable by SNOMED Clinical Terms. In pursuit of Intelligent Document Processing, Text Analytics and Semantic Search, SNOMED concept linking is a basis for many new use cases aimed at the SmartEHR. The technology behind it is rather complex, but the beauty of it lies in its processing speed and in the quality of the data retrieved. By forming a link between terms and concepts, which allows for a computer to understand the document's content, we get a powerful tool for rapid data extraction, matching millions of concepts in a near instant. It is a functional search tool that makes the retrieval of relevant information simple and efficient.

How can the solution be used in everyday life and what "problems" does it solve?

Think of the solution as similar to Google search, but for the medical domain. When searching for patients with pulmonary diseases, the system understands that you

Anatomy Anas

Search anatomics

Search anatomics

Search anatomics

Clear CC Process

Linker 82%

Linker 82%

are interested in all those affected by, for example, pneumonia, COPD, tuberculosis or something else, without you having to specify each term. When used as a document processing tool, applied via Text Analytics, it derives insight and brings data patterns to the foreground. When simply seeking context for the task at hand, or searching for additional, hidden information, its Semantic Search capabilities can generate relevant search results or can be used to adapt the application interface to follow the user's workflow. By extracting care-related clinical concepts in real-time, the technology can guide patient care plans and clinical decisions, making the process interactive. The technology can also be used as a quality assurance tool, running in the background, validating treatment data, matching procedures with clinical coding in patient health records, and providing alerts where and when experts deem fit. Taking it a step further, there is also some potential to link the extracted data with more advanced data structures such as openEHR, making the list of possibilities nearly limitless. Regardless of the application, the principal goals remain the same: improving the flow of relevant information and communication, and speeding-up clinical processes, all provide better patient care.

Who will benefit the most from this technology?

The main beneficiaries of clinical technology should, as it is with

patient care, be the patients. By speeding up clinical processes, automating them, and reducing the time spent dealing with clinical systems and administration, we aim to help clinicians spend more time with their patients. By optimising the clinician workflow, we hope to improve patient care and, in the end, benefit the patient.

How will the clinicians' work be improved by using this new technology?

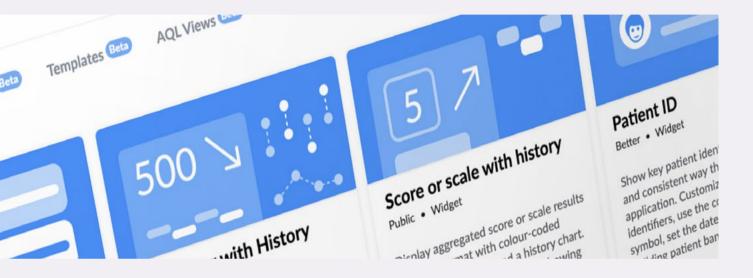
The core advantage of the SNOMED concept linking technology lies in its data structure and consistency. Consistency throughout different care settings, systems, and even languages. It is not uncommon for doctors to switch departments, hospitals, and sometimes even states. Through a consistent representation of the data, the clinicians will always be familiar with the information provided and required by the systems. Thus, they will spend less time adapting to the new systems and instead spend more time it on providing patient care. By offering clinicians interactive workflow, through the extraction of procedure-relevant data during the treatment, the work of clinicians can become easier and more efficient.

How do you wish for it to be used in the future?

We aim to provide the SNOMED concept linking technology as a cloud service for anyone to use. Currently accessible to a limited audience, the service is only in production. The next steps involve integrating it into our company's existing products, providing an enriched electronic health record experience. As we are focused on helping patients by helping clinicians and healthcare organisations to provide better patient care, we believe it is time for the technology to be used in a way that it aids and adjusts to the clinician's workflow instead of disrupting it.



Unveiling the power-packed update of Better EHR Studio



The latest version 3.7 of Better EHR Studio brings about a set of new features and functionalities that will help streamline and expedite the content-building process.



Article published: July 2023

As an integral part of the Better Digital Health Platform, Better EHR Studio is a low-code development environment that enables users to create medical content, even without coding knowledge. The content-building process can often be daunting and time-consuming but with Better EHR Studio, users can effortlessly add and rearrange fields with drag and drop functionality, configure a widget or retrieve the data from other sources with just a few clicks. Once the users are satisfied with the outcome, they can publish their content to production with just one click.

The latest update to the Better EHR Studio includes several upgrades, among them are presets in the content manager that make it effortless to configure the widgets. Once the widget is configured, it can

be saved as a preset, so the next time when the need for a widget arises, the preset can be selected, and the widget is ready for immediate use.

Experimentation meets creativity with the brand-new widget configurator. This playground serves as a dedicated space where widgets can be set up, real-time changes can be visualised, and configurations can be fine-tuned. An immersive environment offers the possibilities of exploring different options, adjusting variables, and instantly witnessing the impact of each modification. The widget configurator enables users to perfect the widgets with ease and flexibility.

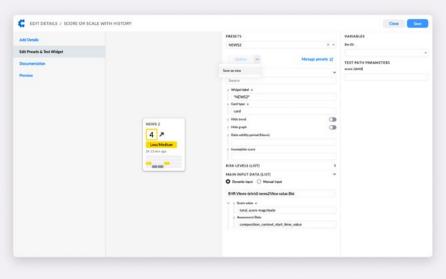
Managing content across different organisations can be difficult. That is why we have introduced support for multiple repositories in the Content Manager. It enables seamlessly navigating and controlling content from various repositories, all within a unified interface. Whether users are dealing with separate projects, teams, or environments, our enhanced Content Manager simplifies the workflow by consolidating multiple repositories into one cohesive view.

The Content Manager provides users with the option to utilise several libraries which function as repositories for distinct user groups. Upon library membership, individuals acquire the capacity to upload and adjust various forms of content, including widgets, widget presets, forms, templates, and AQL views. Additionally, the privilege extends to inviting additional members into the library, facilitating the exclusive sharing of content with selected users.

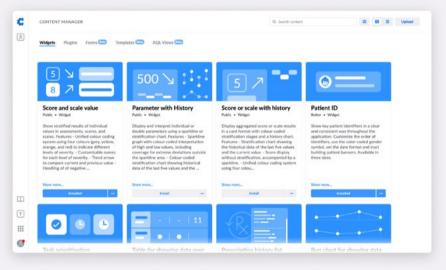
"We are thrilled to announce the newest release of Better EHR Studio. The latest update brings a range of exciting new features and enhancements. This update reflects our dedication to providing an exceptional user experience and addressing the evolving needs of our customers. With the latest features and improvements, we aim to empower our users by giving them greater flexibility, efficiency, and control over their content-building processes. We believe that these additions will streamline workflows, foster creativity, and ultimately lead to better results for our users. We look forward to the positive impact this update will have on our users and their ability to create outstanding content," said Benjamin Muhič, Better EHR Studio Team Lead.

The new 3.7 release has also improved the performance and usability of the EHR Studio, and resolved some issues for an even better experience. A complete list of all the new features can be seen on the right.





The 3.7 release is introducing presets for users' content, enabling effortless customization of widgets and their preservation as presets. When needed, a selected preset caters to the user's requirements, presenting a readily usable widget.



Content Manager enables seamlessly navigating and controlling content from various repositories, all within a unified interface.

Better EHR Studio 3.7.0 (2023-07-07)

Content Manager

- · Presets in the content manager.
- · Multiple libraries in the content manager.
- · Upload and download AQL views from the content manager.
- · Keywords for content in content manager for easier searching and filtering.

Form Builder

- · Widget configurator.
- · Duplicate case and dependency.
- · Export form with templates.
- Redesigned variables panel.
- Search generics by aliases.
- · Removed unwanted buttons and enabled containers in summaries.

Studio

· Keep user progress when logging out.



Slovenia's national eHealth system has played a crucial role in modernising healthcare practices and improving patient care. However, as the system evolved over the years, it has become apparent that several limitations hinder its full potential. In response to these challenges, Slovenia is embarking on a comprehensive eHealth system upgrades project that promises to revolutionise the way healthcare information is accessed, managed, and utilised.

Written by: Samo Drnovšek Image credit: Better, iStockphoto

Supporting emerging models of care

Traditionally, healthcare systems have been structured around individual organisations or Electronic Health Record (EHR) systems, falling into either Generation 1 or Generation 2 architectures. Generation 1 systems often rely on paper records and fragmented data, while Generation 2 systems improve interoperability but are still centred around individual organisations or EHR deployments.

The Slovenian Ministry of Health (MoH) envisioned a move towards a Generation 3 architecture centred around a care record focused on the

patient rather than specific organizations or EHRs. This patient-centric approach is tightly integrated with local and national services, allowing for seamless, patient-centred care. The MoH's target architecture emphasises a shift from an exchangebased model to a platform-based approach with a core principle that "data is for life." This platform-based architecture separates standardised data management from individual applications, enabling the adoption of standardised, patient-centered data models at the national level. Interoperability is no longer a barrier, and a multi-vendor ecosystem using core healthcare standards such as IHE, openEHR, and FHIR has emerged.

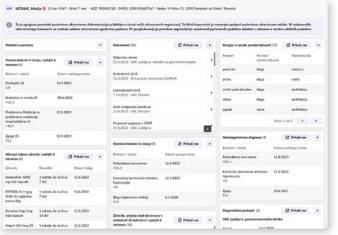
Limitations and challenges of the existing system

The existing eHealth system in Slovenia faces several limitations. Critical services, including ihAdapter and RPPE, rely on the SOAP 1.2 interface, an outdated technology. RPPE, in particular, is based on proprietary technology that is over 15 years old, limiting scalability and interoperability. Fragmented APIs among system components lead to a lack of standardisation. Authentication and authorisation are based solely on user roles, while data access is often obscured behind multiple layers of interaction.

These limitations result in various challenges for healthcare delivery. Clinicians struggle to access a comprehensive view of a patient's health history, as the system is fragmented. Healthcare professionals must open separate applications to access a patient's shared care record, leading to inefficiency and data silos. The unstructured data format hinders clinical decision support and research. Additionally, the data is read-only, impacting care team collaboration and patient involvement. Inconsistencies in displaying data across different systems create further challenges for clinicians working across different care settings. Vendor-dependent upgrades and revisions hinder standardisation and interoperability.

What recent upgrades bring

Moving from a proprietary demographic and organisational data repository to a standardised and vendor-neutral approach based on FHIR R4 is a pivotal step in advancing Slovenia's national EHR. FHIR R4 adoption enhances adaptability and flexibility, enabling seamless data exchange and interoperability with diverse healthcare systems and applications. This transition promotes data consistency, accessibility, and integration of new technologies, ensuring the national EHR remains agile and accommodating to future healthcare advancements.



A recent example of user-centric enhancements is the shift from API-based integration to a context launch integration. This approach allows the CRPD user interface to be embedded within local EHR systems, enhancing data presentation and access.



The interface, designed using CRPD's low-code development tools, is customisable by the Slovenian Ministry of Health, facilitating the creation of specific care pathways and digital services.



To unlock the value of XDS-based documents, the consortium has developed a Natural Language Processing (NLP) engine to extract SNOMED-coded clinical codes from unstructured documents, enhancing healthcare analytics and clinical decision support.

The CRPD's roadmap encompasses various components, including open API support for simplified API development and enhanced validation and testing. Furthermore, the adoption of Attribute-Based Access Control (ABAC) provides fine-grained access control, enhancing security and privacy. The development of secondary-use API services for advanced analytics and population health monitoring in collaboration with the National Public Health Institute is integral to the project. Encouraging the development of

applications and services aligned with the eHealth system using a low-code development environment ensures adaptability and innovation.

This holistic approach enhances the Slovenian CRPD's responsiveness to evolving healthcare needs, ultimately benefiting healthcare providers and patients.



Article published: July 2023 Image credit: Artur Felicijan, NTT Data

Innovative use of health data for research and analysis



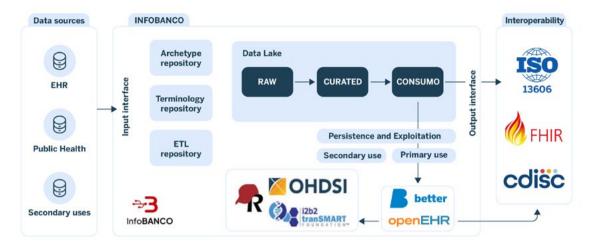
INFOBANCO is an innovative digital health project in Madrid region, employing advanced open standards and models to establish a data-driven, interoperable and reusable health data ecosystem. It aimed to develop a comprehensive platform for a regional health data network and is a pioneer openEHR project that is being executed in Spain.

Spain's healthcare landscape faced a critical issue of disparate systems, resulting in fragmented and siloed data. This compartmentalisation impeded clinicians. managers, and researchers from having a complete understanding of patients' health profiles. Consequently, the quality and coordination of care suffered. These challenges underscored the need for a comprehensive digital solution that could unify healthcare data and convert it into meaningful, actionable insights. INFOBANCO was conceived with the aim of bridging these gaps and revolutionising Spain's healthcare landscape.

INFOBANCO was implemented by Better, together with NTT Data, VeraTech and RHEA, who designed, developed, and implemented a technologically advanced solution. It consists of the data extraction from different clinical, administrative. research and other information systems and then harmonising it to different persistence repositories and exchange interfaces for different purposes. All clinical data for this project at the Hospital Universitario 12 de Octubre in Madrid, which is one of the most prestigious national and international health centres, is meaningfully stored in an openEHR format using the Better digital health platform.

Health data architecture for the future

"The knowledge we will get in the Infobanco project will help us understand what are the challenges to implementing openEHR standard. If clinical registry models are standardised, we can use them both in the fundamental primary purpose of giving patient care without boundaries, without transitions, but it's also going to be useful for secondary use," said Pablo Serrano Balazote, Planning Director from the Hospital Universitario 12 de Octubre in Madrid, about the benefits of developing an innovative architecture for a regional health data network.



In the pursuit of advancing health-care delivery and secondary use, INFOBANCO focused on building a health data architecture for the Madrid region network (hospitals, primary care, public health, and research centres). It provides services to clinicians, managers, and researchers to support decisions and propagate learning in healthcare.

"There was a vision to have a single registry with the data that responds to multiple purposes. If we can have the ability to generate the response to different challenges with health data from a single registry, we will be able to accelerate that generation of knowledge and also the usefulness of health data in healthcare," said Pablo Serrano Balazote.



To create INFOBANCO, a new paradigm of healthcare data was used based on openEHR, a standard consisting of open specifications, clinical models, and software to create solutions for both information and healthcare mechanisms.

"I think openEHR will take part in ambitious regional projects that are well planned, to give the tools of the new generation to the shared health records or the data federation," said Serrano and added that standards will add value to the clinical data repositories that will as such become truly interoperable systems. "INFOBANCO project will demonstrate that with standardised health record models, data lakes or data repositories of actual value are generated," he added.

Positive effects of the new solution

This new pioneering system in Spain was implemented in June 2023 and represents an investment of 1.97 million euros. It was co-financed by the Consejería de Sanidad, the Ministerio de Ciencia e Innovación of Spain, and the European Regional Development Fund (ERDF), Symbolising the Community of Madrid's commitment to modernising public services and fostering public-private collaboration.

The implementation involved managing various governance levels, including model and terminology management, data ownership, technological infrastructure, and service provision. Transitioning from innovative public procurement to execution posed some challenges, however, effective collaboration between all entities ensured their successful resolution.

INFOBANCO's implementation already had positive effects. It significantly improved healthcare coordination and continuity, information accessibility (also for secondary use), and overall patient outcomes. Health professionals were empowered with more information, promoting higher-quality decision-making and enhancing treatment efficiency. The ability to predict clinical deterioration before it occurred was also a very innovative achievement.

Plans for an interconnected data landscape

With the solid infrastructure now in place. INFOBANCO envisions broadening its scope to include additional advanced features and functionalities. The vision is to roll out the platform across an extensive network of regional hospitals, creating a comprehensive, interconnected data landscape. This expansion will allow more comprehensive access to health data, contributing to a more efficient healthcare and clinical research ecosystem across the region. There is also a keen interest in expanding the initiative to other European projects and the European health data space, promoting a more scalable and sustainable healthcare data ecosystem.





The NLP Viewer analyses documents and identifies clinical content

As part of the new technologies of the Centralised Registry of Patient Data (CRPD), Better has developed an application named 'NLP Viewer'. Designed for advanced text analysis, the NLP Viewer excels in interpreting medical content within documents. A key feature of the NLP Viewer is its ability to extract crucial information for users and classify clinical content into relevant categories.



Article published: November 2023

Operating on sophisticated natural language processing (NLP) algorithms, the NLP Viewer identifies and categorises important words and phrases in documents. Users upload a text document (in formats such as TXT, PDF, etc.) to the editor, and the algorithm then scans the content and identifies key information. For clinical content, it categorizes them into relevant categories such as health conditions, diagnoses, clinical procedures,

medications, anatomy, and others. In the process of recognizing clinical content, the information is further linked to encoded clinical concepts from relevant codebooks and ontologies, such as ICD-10, KTDP, ATC, and SNOMED.

The NLP Viewer is designed to be used by various users, ranging from healthcare professionals, researchers, students to technical experts.

The NLP Viewer utilises an NLP server and SNOMED

The key services for the NLP Viewer application are provided by the NLP server. This central component executes sophisticated natural language processing algorithms and integrates with other components of the application to ensure comprehensive document analysis. The NLP server identifies and categorizes key information, linking it to broader information sources. It adeptly processes a variety of document types, from health reports to research articles, including logs and other formats.

For linking clinical information to appropriate terminological concepts, the NLP Viewer employs SNOMED, the most extensive collection of systematically gathered and connected clinical concepts in the world. It serves as the foundation for processing healthcare texts. As explained by Robert Tovornik, the head of the Innovation team at Better, the company that developed the application, this occurs when "the NLP Viewer recognizes a specific diagnosis, health condition, or any other clinical information in the text and associates it with the corresponding term in SNOMED. This way, we achieve standardization of terms, information connectivity, and a deeper understanding of clinical content. SNOMED enables further linking of identified information with

internationally recognized terms, facilitating communication and collaboration among experts on a global scale. Moreover, the use of SNOMED terms is crucial for ensuring interoperability among different health information systems.

Introduction of global medical standards in the context of Slovenian medical practice

The development of the NLP Viewer technology took place in a multidisciplinary team, bringing together experts in computer science, data science, and medicine. At Better, the development was led by the Innovation team, namely **Robert Tovornik**, **Matic Bernik**, and **Emil Plesnik**.

Initially, they analysed the requirements and expectations of potential users, setting the guidelines for development. Special attention was devoted to collecting and analysing Slovenian clinical terms, laying the foundation for adapting and improving natural language processing algorithms. This ensured that the application was tailored to the linguistic and professional specifics of the Slovenian healthcare environment.

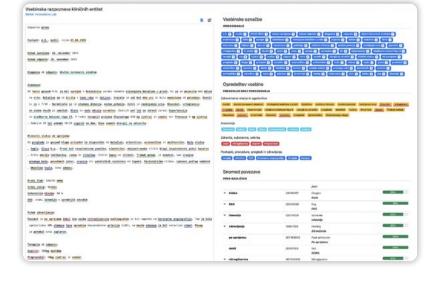
"The introduction of global medical standards into the context of Slovenian medical practice was a significant challenge, which included the extensive translation of SNOMED terminology into Slovenian and the

formation of clinical concepts," said Tovornik. He added that collaboration and mutual complementation among team members, content experts, and technology development experts were crucial throughout the development process.

Significant progress in the field of Slovenian clinical technologies

The scope and utility of the NLP Viewer technology are vast, particularly in clinical data analytics. It represents a significant advancement in the field of Slovenian technologies, as tools for advanced understanding of Slovenian texts are rare, particularly in the clinical domain. Therefore, the vision of Better and the team involved in the development is the continuous enhancement and expansion of clinical capabilities. "Although the application is already very powerful, we see the dynamics of the healthcare sector with its specific challenges. Each domain or hospital has its characteristics in using clinical terms and practices. We see further potential for progress in close collaboration with domain experts, aiming to develop solutions that address the everyday challenges they encounter in practice," said Robert Tovornik.

A deep understanding of clinical data is essential for pioneering digital healthcare solutions. Hence, the basic potential of the application lies in advanced analysis of free texts, labeling, and summarising texts. Assistance in searching, structuring, and coding content, which is currently a very time-consuming part of the healthcare process, is the most crucial factor in the application's further development. "In the future, we see a much broader range of possibilities, but for now, our goal is to continue to explore and adapt the use of this advanced technology to best serve the needs of the healthcare sector," Tovornik added.





Entering the US market

With the US digital healthcare market rapidly evolving and a growing demand for innovative solutions and comprehensive strategies to meet the everchanging healthcare landscape, Better is taking its first steps in the US healthcare landscape through two key partnerships.



In collaboration with Medical Home Network, Better wishes to revolutionise care coordination by utilising comprehensive patient data for better patient care. With the help of EBG Advisors, a US national strategy and management consultancy, Better will offer strategic consulting services and digital technologies to healthcare providers, thus combining Better's technological expertise with EBG Advisors' strategic consulting prowess. Both collaborations emphasise a shared dedication to delivering sustainable solutions and driving positive change in the digital healthcare market.

Transforming health and care with open data

Medical Home Network (MHN) is based in Chicago and is dedicated to transforming care and building healthier communities. As part of the Care Coordination Project that Cheryl Lulias and Tomaž Gornik

aims to develop comprehensive patient-centred care coordination use cases, utilising patient data from multiple sources, to engage clinicians, community health workers, and coaches to improve quality and lower the cost of care, Better will provide its digital health platform as a base for all the future projects.

"We are proud to partner with Medical Home Network, our first partner in the US. We both believe that good data is the foundation for better care, and that our collaboration will transform healthcare through the use of open data standards. Through this partnership, we are bringing our cutting-edge digital health platform to the US market, as well as our experience from dozens of successful implementations in the most advanced European markets, such as the Nordic countries and the UK," said Tomaž Gornik, CEO and founder of Better.

"Medical Home Network has always been dedicated to transforming care and encouraging communication across communities and systems in service of the patient. We are thrilled to partner with Better as their first US client to further that mission. We will harness Better's open standards solution and trailblasing work for OneLondon to break down silos between data and applications,



and enable a common care plan exchange across the healthcare continuum," said **Cheryl Lulias**, President and CEO of Medical Home Network

Offering healthcare consultancy services

As the healthcare landscape continues to evolve at an unprecedented pace, and the demand for innovative and comprehensive solutions continues to rise, the collaboration between EBG Advisors and Better brings together expertise, experience, and technology to offer clients a new perspective on business and transformative strategies in the field of healthcare.

EBG Advisors is a network of strategic consultants that assist healthcare and life sciences organisations to overcome complex challenges and achieve their strategic objectives.

Working with EBG Advisors, Better will build on their strengths and resources to provide a comprehensive suite of strategic consulting services. These will include extensive support in research, analysis, strategic planning and execution, and consulting, enabling clients to navigate complex regulatory frameworks, seize growth opportunities, and enhance operational efficiency, all while maintaining a patient-centric focus.

Both Better and EBG Advisors are committed to delivering innovative, integrated, and sustainable solutions that will drive positive change in the healthcare industry.

"We are thrilled to join forces with EBG Advisors to offer a new set of services to the healthcare market. We are sure that by combining their strategic expertise with our technological knowledge and insights, we can offer great value for our clients,

EBG **SS** advisors

About EBG Advisors

EBG Advisors is a national strategv and management consultancy with a primary focus to serve the health care and life science industries. With a far-reaching network of consultants and legal strategic advisors, EBG Advisors is capable of supporting client innovations from ideation to full implementation. Their areas of expertise include business strategy and program development, policy analysis, regulatory compliance, human resources training, executive compensation, performance improvement, data security, and benefits consulting. EBG Advisors works collaboratively with the law firm Epstein Becker Green to fulfill clients' business objectives as well as their consulting and legal needs.

empowering them to navigate a complex healthcare environment and achieve their long-term goals," said Jovan Pavićević, International Markets Director at Better.

"We are glad to have the amazing group of consultants at Better join us to expand our professional service offerings to our clients," said **Steven DiFiore**, Chief Operating Officer at Epstein Becker Green. "The health-care industry requires constant innovation and cutting-edge technology to meet and exceed care demands. Together, EBG Advisors and Better can help healthcare professionals lead that charge."



MEDICAL HOME NETWORK

About Medical Home Network

Medical Home Network powers the future of healthcare delivery by creating community-based systems of care through the combination of their proven model and digital platform, which transforms care and consistently delivers leading health outcomes, savings, and quality results under value-based care. MHN was founded in 2009 to unite multiple health systems and providers in Chicago around a vision to reduce systemic gaps in care and social determinants that impact the health of under-resourced communities and has expanded its work into new markets as well.



Together with PT. Daya Medika Pratama, an innovative Indonesian IT company specialising in hospital information systems, Better is stepping into the Indonesian market. The collaboration will extend the DMP's hospital information system into the clinical domain, incorporating a robust clinical data module on top of the Better digital health platform based on openEHR, powered by low-code tools.

PT. Daya Medika Pratama (DMP) wants to develop innovative solutions based on openEHR with a vision of creating an environment where healthcare data is not only longlived and computable but easily understood, facilitating seamless information exchange across the different healthcare landscapes. The company currently offers a comprehensive hospital information system (AFYA-HIS) that includes electronic health records (EHR), and they want to leverage the Better digital health platform and explore large-scale developments.

The aim of the partnership is to establish an open, interoperable ecosystem in the Indonesian market, ensuring

that healthcare data is both persistent and easily accessible. Better, with its dedication to transforming healthcare organisations and simplifying the work of care teams, is uniquely positioned to offer its expertise. The Better digital health platform, based on the openEHR standard that assures clinical data persistence and offers a path from silos of data to longitudinal, patient-centred care for life, will serve as a foundation for the future data-driven health ecosystem.

PT. Daya Medika Pratama will use the full spectrum of the Better platform, encompassing the clinical data repository, Better low-code Studio, and Better portal. This strategic adoption will enable PT. Daya Medika



Facts about Indonesia



278

million inhabitants



380,000 +

hospital beds



2,950 + hospitals nationwide



125,000 + physicians

Pratama to achieve standard-based data persistence and empower the rapid development of new clinical use cases. Additionally, it will provide a seamless web-based portal framework with a unified, personalised application experience.

Petar Abadžić, International sales manager at Better, said: "We are thrilled to collaborate with PT. Daya Medika Pratama to elevate the healthcare standards in Indonesia.

By leveraging our platform's robust capabilities, including the clinical data repository and low-code tools, we aim to enhance DMP's existing hospital information system by integrating comprehensive EHR functionalities. The openEHR foundation ensures that healthcare data is not only accessible but also aligns with global standards to provide a truly interoperable healthcare ecosystem in Indonesia. After Thailand and now Indonesia, we will look for more partners and opportunities in the region to expand our business and, together with them, change how care is delivered across Southeast Asia."

Ricky Gunawan, Director of PT. Daya Medika Pratama (DMP), said: "The market always pushes you to be on the edge of technology, and we are looking to achieve this together with Better. The clinical domain is something we have not stepped in before, but with a robust platform, open data, and a set of tools for development, we believe this process will be much smoother. Joining the openEHR community and leveraging the community's built models will only further enhance

this journey. We believe openEHR is the future for Indonesia, and we are excited about the collaboration that will elevate healthcare standards and empower healthcare providers across the market."

The collaboration between Better and DMP will work in the direction of advancing the HIS sector in the region by leveraging the power of the Better platform, aligning its efforts to comply with national regulations and requirements within the Indonesian healthcare landscape, ensuring adherence and effectiveness of healthcare solutions. And it will try to modernise the existing systems by utilising the open platform approach as a foundation for new development. This includes a strategic shift towards large hospitals and national use cases while enhancing the existing hospital information systems with new EHR functionalities. The Ministry of Health in Indonesia has launched the Indonesia Health Services (IHS) platform, known as SATUSEHAT, to integrate and standardize health data services nationwide, with the goal of full integration by 2023.



About PT. Daya Medika Pratama

PT. Daya Medika Pratama (DMP) is an IT company based at Bandung and Jakarta Indonesia that provides both products and solutions in the field of Information Technology. The mission of PT. Daya Media Pratama is to provide the best and proper services and solutions, develop human resources, to follow the developments in information technology, and to apply proper technology in product development to its customers and beyond. They have broad and various business clients ranging from the top highest industries in the country to reputable state universities, hospitals and non-commercial organisations.





Through the partnership with H Lab, a pioneering Thai company specialising in Al-powered hospital management platforms, Better is bringing advanced healthcare solutions to Thailand. The companies will work on the development of a clinical system based on the Better digital health platform.

The collaboration between Better and H Lab will focus on the development of an electronic medical record (EMR), which will be a part of a larger hospital information system (HIS) called Cortex. H Lab will take the

lead in customising and adapting the Better digital health platform to a range of market use cases to meet the unique needs of hospitals in Thailand, resulting in the creation of a modular and open system that

Facts about Thailand



66

million inhabitants



2nd largest economy

Southeast Asia



1.350 +hospitals nationwide

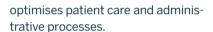


67.000 + physicians



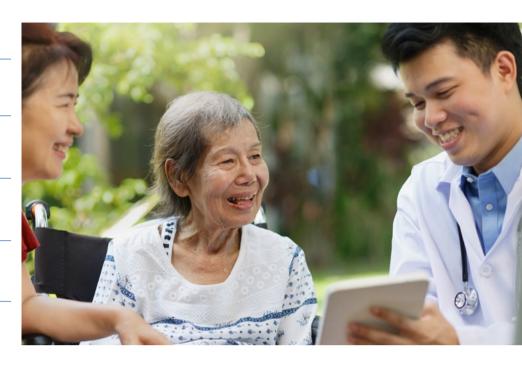
166.000 +

hospital beds



H Lab will leverage the Better openEHR clinical data repository and the low-code development tools, which will enable them to create their own EMR and integrate it with the other systems using the open APIs. The solution, underpinned by a powerful clinical data repository, will provide instant access to all relevant clinical information, offering a unified experience for all healthcare providers. The low-code tools will allow them to rapidly develop and customise clinical forms and clinical screens for acute and specialised care in Thailand's hospital context, making the development process much shorter and more efficient.

The development process will be further accelerated using the existing clinical content from the openEHR community. Ready-made and clinically verified information models, archetypes, and templates are available from the openEHR Clinical Knowledge Manager, as well as forms and terminologies from different previous projects. These all save time and resources for the development of the solution.



Speaking about the partnership, Jovan Pavićević. International markets director at Better, said: "H Lab is our first partner in Thailand, and we believe that this partnership will be an important step towards realising our vision of a data-driven healthcare ecosystem in the region. The agility and expertise, but more importantly, passion and vision that H Lab possesses, ideally match ours, and we can only complement each other to deliver a new and innovative approach to hospital management systems. We have also created a tailored partnership business model, which is guaranteeing both mutual support and mutual growth in the coming years."

Warandhorn Photisaro. Head of strategy and partnerships at H Lab, added: "This partnership is a monumental occasion for the future of Thai healthcare technology. Together with Better, H Lab is excited to explore the full potential of the digital health platform and its low-code capabilities, introducing openEHR as the clinical data standard to supercharge interoperability within Thailand's healthcare systems. Through the combination of our rapid development prowess and an open data approach, we're

confident this partnership will change the health tech landscape."

This partnership highlights the commitment of Better and H Lab to advance healthcare through innovative technology solutions, as the companies share a vision of improving patient care and streamlining healthcare processes. The collaboration promises to make a lasting impact on the healthcare landscape in Thailand.

According to Thai eHealth Strategy, all hospitals in Thailand will be using an EHR system by 2026.



About H Lab

H Lab is a pioneering Thai health tech company developing innovative software solutions for the healthcare industry. Their specialisation in Al-powered hospital management platforms is underpinned by deep expertise in healthcare system engineering and health data management.



Image credit: iStockphoto, Better

London, Berlin, Barcelona, Madrid, Gothenburg, Lisbon, Helsinki, Chicago. Better was all over the world this year. We shared our knowledge of digital health platforms, our ePMA solution, virtual wards, universal care planning solution, low-code tools, clinical data repository, and other innovations.

REWIRED

"Great technology helps, but ultimately everything we do is about people and bringing people together."

That was a quote from **Gary McAllister**, OneLondon CTO, who presented the Universal Care Plan that we did together for London, and it was one of the highlights of this year's Rewired. We heard about the new trends and innovations, we met and got to know a lot of interesting people, and were pleased to see that the Better booth was packed the whole time.

We discovered there is an increased awareness regarding the approach to transformation through getting control of the data using open standards and using this foundation to deliver patient-centred, outcome-focused services quickly.

Convergence is an important topic in the NHS, but there is still a lack of common understanding across the system about how to converge around the patient pathway and move away from the EHR-centred view of the world towards a patient-centred one.



DMEA

The biggest digital health event in Germany took place in April and it showed a real desire to use data and technology to deliver better health outcomes.

Lessons learned from this year's DMEA:

It is not just about interoperability and digitalisation, another theme that emerged and was used ubiquitously, was the role of a digital health platform. It offers an open and modular approach to the digitalisation of healthcare and provides an alternative architectural approach that can increase the pace of clinical and business transformation.

We see many challenges in making health data available within current interoperability standards, so this approach presents an opportunity for Germany to follow in the footsteps



of the UK, the Nordic countries, and Catalonia in adopting a digital health platform approach to transform and become truly interoperable.

Digitalisation strategies are a hot topic. It was interesting to listen to great talks and speak with delegates to understand some of the challenges, use cases, and strategies for digitalisation and transformation.

Unfortunately, a lot of hospitals, clinics, and industries share the common pain point of struggling to find good staff and managing people. Implementing a detailed and thorough digitalisation strategy and using good data, management services, and cloud solutions could positively impact and resolve many staff and resource issues. Success is always made by people, but we now have the technology to support it.

SIDE EFFECTS

The Better Meds event "Side Effects", which was meant to exchange experience in medication management and discuss future plans and innovations, brought a great turnout of clinical experts and some very interesting content.

We heard from many interesting speakers, including:

Rahul Singal, Chief Pharmacy and Medicines Information Officer at NHS England, who spoke about the future plans NHS had in terms of medication management, **Barbara Arroyo**, Interim CCIO at South London and Maudsley NHS Foundation Trust, who presented the digital transformation in SLAM, and registered nurses **Anja Drobne** and **Ana Kos** from University Medical Centre Ljubljana, who presented a case in which 33 registered nurses taught over 400 nurses, students, and volunteers how to use the system in just a few days during the pandemic.

It was inspiring to hear all about the future plans for ePMA development and how we could all contribute to improved patient safety with the help of digital tools.



CPC

The Clinical Pharmacy Congress in London was all about new trends in digital healthcare, learning about the latest innovations and transformative ideas in clinical pharmacy, meeting with pharmacists from across the UK and beyond, and hearing from interesting speakers.

The event was a great opportunity to share our knowledge about how to

optimise medication management, save time, and reduce errors, how to better use the data for better care of the patients with the award-winning electronic prescribing and medication administration solution, and to hear from the Better team and customers about the success stories of Better Meds.



VITALIS

In May, the Better team also visited Vitalis, the largest eHealth event in Scandinavia. openEHR, digital health platforms, data-driven architectures, and regional solutions were the topics at the forefront of the event.

The Nordic region, especially Sweden, is home to renowned healthcare and research institutions, has highly skilled hardware and software expertise, and a thriving industry. As the event confirmed, open data models and standards can present a way forward for the Swedish healthcare system.

One of the highlights of the event was also a talk by Tomaž Gornik about the future of openEHR. He explained that data is for life and applications change, so there is a need to separate them, and that end-to-end disease management will require an ecosystem of apps and applications working with the same data. He referenced openEHR as the only international open health data standard designed for persistence that is now being deployed in a growing number of European countries.



HETT

HETT Show in London was also one of the highlights on Better's calendar this year. We learned about the latest digital health trends, innovations, and challenges, and came home with several new insights:

Health and care organisations value data more than ever before. openEHR has been called out as a core standard as part of an update on NHSE national standards by the NHSE TSAS (Technology Strategy Architecture and Standards) team. New and emerging models of care must be designed around the patient, not any individual provider organisation. Digital solutions need to reflect this approach.

Preventive health can be achieved with small, simple measures. The introduction of ICSs and increased focus centrally by NHSE is driving digital transformation to include social care.

The presentation from Roko Malkoč. the Better Meds business unit director, talking about the advantages of implementing a modern open-data solution throughout Catalonia, was a huge success.

BETTER DIGITAL HEALTH FORUM

In May, we organised a Better digital health forum "Transforming at pace", a special gathering of colleagues from the NHS and international healthcare organisations, our customers and partner organisations to share ideas on how to solve the challenges that arise in the everyday work of healthcare professionals.

We listened to Erik Vermeulen. Murrae Tolson, Gary McAllister, John Meredith, Phil Bottomley, Adam Ansell, Tomaž Gornik, and many others who shared their experience with different solutions made possible with open data and the digital health platform. The opening speech of the event was delivered by H.E. Simona Leskovar, Ambassador of the Republic of Slovenia to the United Kingdom of Great Britain and Northern Ireland.

It was great to see the community of openEHR supporters growing. And several workshops brought many

Better at events in 2024

Rewired

The NEC, Birmingham 12 - 13 March 2024

DMEA

Berlin Messe 9 - 11 April 2024

Clinical Pharmacy Congress

ExCeL, London 10 - 11 May 2024

VITALIS

Swedish Exhibition & Congress Centre, Gothenburg 13 - 16 May 2024

HLTH Europe

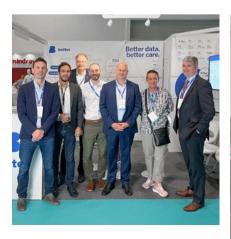
RAI convention Centre. Amsterdam 17 - 20 June 2024

HETT

ExCeL. London 24 – 25 September 2024

great ideas on how to make the Better solutions and products even better, and how to keep on building innovative solutions that deliver patient-centric care.







Better development mogram

ACCELERATED DEVELOPMENT



SANDBOX ACCESS



E-LEARNING PORTAL



DEDICATED TECHNICAL SUPPORT



CONSULTING



CUSTOM PRICING



Unlock the full potential of your enterprise with Better development program

With development programs, Better partners not only get the access to the latest technologies but also the possibility to interact with our clinical and development teams in the process of their own capacity building and portfolio generation. The end result is a faster, more efficient and sustainable offering on the partner end, supported by Better.

Don't miss out on this opportunity to get a special application license.



Join us now and transform your future!





Moving towards better health

In 2022, we started with an initiative we called Move Better. It is an initiative in which we move, we challenge ourselves, encourage each other, we record our achievements, and raise money for charity while doing it.

3 80 4,715 3,861 10,974 287,771 33,011 +4.000

countries
Better employees
km run
km walked
km cycled
elevation meters climbed
minutes of workouts
€ raised

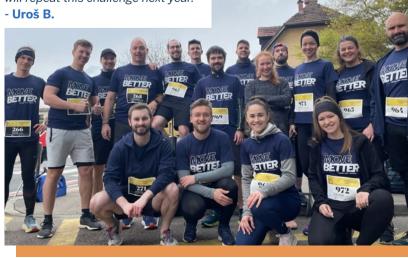


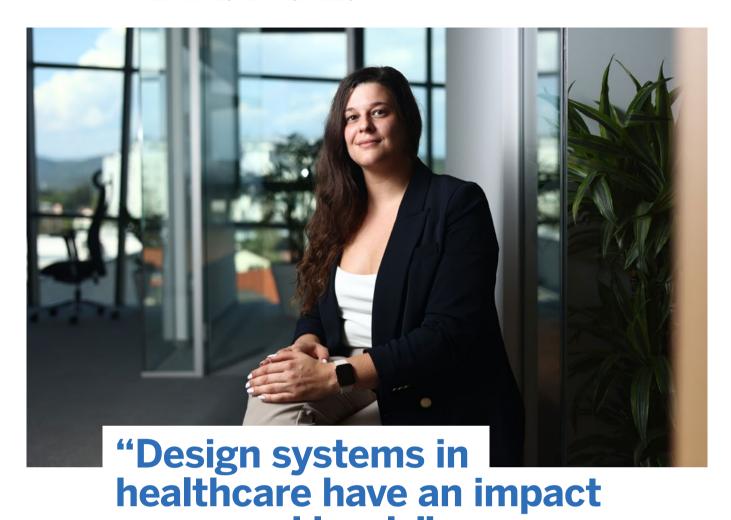
"It was nice to follow the achievements of our colleagues.

- Sandra M.



"Sports are mostly about competition, but our Move Better initiative is more about collaboration. I am sure the money we raised will go to those who need it and I really hope that we will repeat this challenge next year."





Interview published: September 2023 Photography by: Jernej Lasić

on several levels"

"I really believe in Better's mission of improving work for care teams," said Ajda Bevc, a Design Lead at Better, who is leading a team of 12 designers, making sure that the Better products have a unified look and consistent user experience."

Ajda knew that she wanted to be a graphic designer since at the age of 12, and, as they say – the rest is history. She has worked in the areas of infographics and data visualisation, publications, design systems, and form design, and now co-creates the design system for healthcare software and applications. We talked to Ajda about her passions and skills, and what it is like working with enthusiastic people with a common goal.

As a designer by heart and by mind, how did your design career start? Were you already a creative soul in your childhood?

Yes, my grandmother is an amateur painter. She was really a good influence and took me and my sister (now an architect) to many art workshops. I remember my favourite pastime in the car was always to look at the transportation logos on trucks. I was certain I was going to be a graphic designer by the time I was 12, and then I took all the right steps to get to where I am now.

We are surrounded by design everywhere we go and look. How critical are you towards other design products?

When I was younger, I had an opinion on everything. With experience, you learn to better assess and critique other people's work in the context it was made for. Context is everything. I am critical of public services and solutions, though, as these should be adapted for all age and literacy groups and should always fit the users' needs.

Who is your role model in the world of graphic design?

Ken Garland wrote the First Things
First manifesto, in which he challenged designers to shift their focus
from consumerism to addressing
more important issues, an area
where designers can be of help. It
really had an impact on the way I
think about my role as a designer,
and this has always impacted my
choice of projects and areas of work.
I also enjoy the works of Emil Ruder
and Robert Bringhurst, mainly on
the subject of typography and grids.

You have recently been promoted to design lead at Better. How are you finding your new role and new responsibilities?

I had some transitioning to do, going from production to leadership. I was fortunate enough to attend some workshops that helped me a lot, and I also have an amazing team that supported me throughout the transition. The role is challenging but also very rewarding because of the supportive environment.

Why is a design system so important in healthcare software and applications?

Design systems have an impact on several levels. For development, it can increase efficiency and allow for faster scaling. For end users, they help create a unified look and consistent user experiences across products, making users comfortable and confident when interacting with them.

How are you developing and upgrading the Better design system? How much are your customers and users involved in the process?

At the moment, our primary users are our designers and developers from our product teams. We collaborate closely and continuously gather feedback to improve our system. The designers in the product teams communicate the needs of our end users, and that guides the design of the components and other parts of the design system, such as content and clinical data visualisation.

What does Better mean to you?

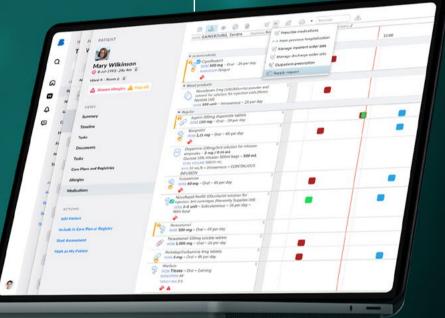
I really believe in Better's mission of improving work for care teams, and I am fond of the openEHR concepts that our products are built upon. I am thankful for all the knowledge I have received in the last five years, but the most significant benefit is working with smart, enthusiastic people with a common goal.



"My role is challenging but also very rewarding because of the supportive environment."













Better Meds is an **award-winning** electronic prescribing and medication management solution that **improves** the way medications are managed, prescribed, and administered.

It encourages team collaboration and supports informed decision-making. Better Meds saves time and money while also reducing errors and seamlessly integrates with existing workflows and technologies.

www.better.care/meds

BETTER AND OPENEHR

openEHR for patient-centred data transformation

Written by: Better

In pursuing the goal of accelerating digital transformation, underpinned by data for life, Better is a strong believer in and an advocate of the openEHR standard. Across the openEHR community, we share a commitment to creating an open platform for patient-centred health data. Based on a standard architecture for future-proof health information, openEHR offers a path from silos of data to longitudinal, patient-centred care for life, which aligns well with Better's product direction and the vision for the future of healthcare.

are working with all our customers on the same goal – to set them up for the future. A future that moves towards open platforms and away from siloed solutions. A future where clinical teams can work with any digital solution provider without being tied to a particular vendor. And a future where the digital health infrastructure will be fully compliant with open standards.

The data of a patient is for life, and applications are the ones that change. OpenEHR is a perfect standard for that, as it enables an efficient and secure exchange of health information among healthcare providers. Also, it has been designed for persistence, to store information in a clear structure and well-modelled framework, and it moves the entire landscape from an app-centric architecture to a data-centric one.

There is a worldwide network of openEHR clinicians who are actively

contributing to the openEHR community and building additional executable clinical content. Thus, OpenEHR enables everyone in the ecosystem to easily share and immediately use all of the clinical content created by the local or global community, such as decision support, guidelines, forms, patient pathways, assessments, and more.

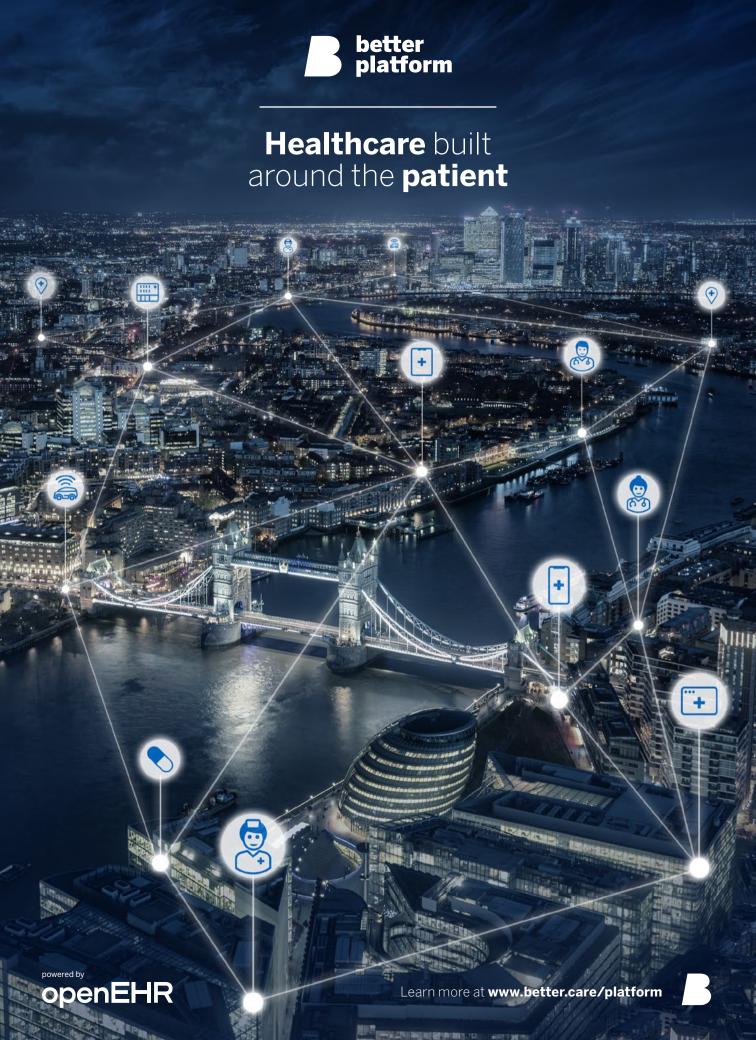
In combination with HL7 FHIR for the exchange of data and OMOP for research, openEHR is now being deployed in a growing number of countries. Also, all the big players in the healthcare landscape have embraced openEHR as the standard for data persistence, and hospitals, regions, and countries are moving in the direction of regional architectures and standardised data repositories based on open data models, being used for care providing and care coordination. The most digitally advanced health systems are building an entirely new infrastructure based on open data. The future of openEHR is bright.





"Please compete on having a very good application, on building the coolest user experience, but use the openEHR specification that's already there."

Erik Vermeulen Smart Health Solution Leader at EY Global





Modernising Catalan healthcare