WeLink.Care

IMPACT STUDY

helena

HealthConnect

INTRODUCTION TO THE WELINK.CARE LABEL

The WeLink.Care label was created in 2020, at the onset of the COVID crisis, in order to contribute to the international effort to fight the pandemic. Our contribution was to create the first catalogue of eHealth solutions to be used in this emergency context. It was an immediate success and many of the featured solutions have been effectively used and integrated in the global community of healthcare institutions.

Our revolutionary approach to assessment was – and still is – centred on a deep dive into the capacity to improve practices while providing an enhanced experience for care professionals and patients alike. Building on that, we rapidly developed our scientific approach to expand the scope of the database to cover all the sub-domains of digital health and include in our assessment a thorough evaluation of the economic capacity of the company behind the solution and the maturity of the proposed innovation.

Today, dozens of solutions are selected each month to be assessed by one of our experts, and a healthy portion of them obtain the WeLink.Care label. Based on years of extensive research into digital health solutions and their effective impact on healthcare, our unique methodology relies on the evaluation of more than 50 data points subdivided into relevant categories.

This evaluation is executed by certified and trained experts who capitalise on their own experience of digital health to leverage our methodology in their information gathering. The input of the solution provider team, enriched with the input of patients and care professionals, collected through a series of detailed interviews, forms the foundation of the analysis, completed by extensive research in the available documentation.

This Impact Study is the result of that extensive work.

EXECUTIVE SUMMARY

This study evaluates Helena, a platform designed to facilitate secure communication and data exchange between patients and healthcare providers, contributing significantly to patient empowerment and healthcare efficiency. It offers secure end-to-end data exchange within a closed ecosystem, ensuring that all parties involved in patient care can collaborate effectively. The platform's strong emphasis on data security and privacy, utilizing encryption and the Federal Authentication Service (FAS), ensures compliance with GDPR requirements and provides patients with confidence in the safety of their information.

The platform streamlines healthcare processes, reducing administrative burdens and improving efficiency. Features such as electronic prescription renewals and integration with systems like Vitalink and COZO facilitate real-time data sharing and timely medical decisions. Helena's focus on preventive care and patient empowerment is evident through tools that provide access to personal health records, educational resources, and remote consultations.

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Despite its strengths, the study identifies areas for improvement based on user feedback. These include enhancing pharmacy integration, ensuring all current prescriptions and vaccinations are recorded, expanding the list of healthcare professionals, and improving data consistency across the platform. Addressing these gaps will further enhance Helena's functionality and user experience.

The study also presents field studies from both healthcare professionals and patients, highlighting the practical benefits and challenges of using Helena. For instance, Dr. Bert Vaes, a general practitioner and professor, utilizes Helena to optimize patient records and facilitate research. An anonymous patient user shares their experience of managing medications, accessing COVID-19 certificates, and interacting with their care team through the platform.

The Helena platform exemplifies innovation in digital healthcare. By addressing current gaps and integrating user feedback, Helena has the potential to become an indispensable tool for both patients and healthcare providers. Its commitment to security, user-cantered design, and seamless integration with existing systems positions it well for future advancements and broader adoption in the healthcare sector. As the platform continues to evolve, it will undoubtedly enhance patient-cantered care, leading to better health outcomes and a more efficient healthcare system. The insights gained from this study underscore the importance of continuous improvement driven by user feedback, ensuring that Helena meets the diverse needs of its users and remains at the forefront of digital health solutions.

DIGITAL HEALTH LANDSCAPE

Belgium's healthcare sector is recognized for its high-quality services, accessibility, and comprehensive insurance coverage. However, as in many other developed countries, it faces challenges such as rising healthcare costs, an aging population, and a growing demand for personalized care. These challenges are driving the need for innovative digital health solutions that can enhance the efficiency, quality, and patient-centeredness of healthcare services.

In recent years, there has been a significant shift towards digitalization in Belgian healthcare. This transition is driven by various factors, including technological advancements, changing patient expectations, and governmental initiatives. Patients are increasingly seeking convenience, transparency, and engagement in their healthcare journeys, making eHealth solutions like Helena increasingly relevant.

The Belgian government has shown strong support for digital health, as evidenced by initiatives like the eHealth platform, which facilitates secure data exchange between different healthcare players. These governmental efforts underscore the country's commitment to developing a robust digital health infrastructure that can cater to the evolving needs of its population.

Technological progress in areas like data analytics, cloud computing, and mobile health is reshaping the landscape of healthcare delivery. There is a growing emphasis on solutions that not only offer standalone functionality but can also

integrate seamlessly with existing healthcare systems, ensuring continuity and efficiency in patient care.

With the COVID-19 pandemic accelerating the adoption of remote healthcare delivery, telemedicine and remote monitoring have become more prominent in the Belgian market. These services are not only essential for managing the pandemic but also for providing continuous care to chronic disease patients, elderly populations, and those residing in remote areas.

There's a rising trend towards preventive healthcare and patient empowerment, with digital tools offering patients more control over their health and wellness. Platforms that provide access to personal health records, educational resources, and remote consultations are particularly in demand.

A unique aspect of the Belgian market is the collaboration between public and private sectors in healthcare. This collaborative approach is crucial for the successful implementation and widespread adoption of digital health solutions like Helena, ensuring they are aligned with national healthcare objectives and standards.
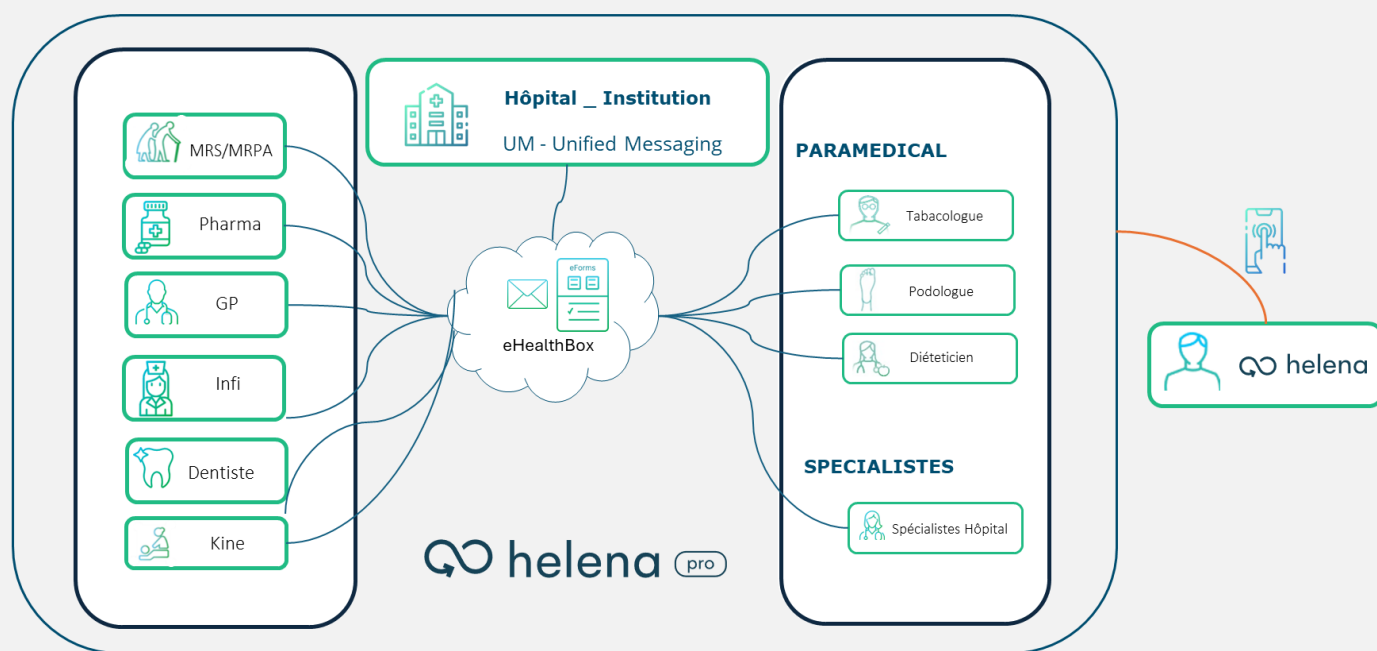

Figure 1 : Helena & Helena Pro

THE SOLUTION : HELENA

Helena is an integrated digital health platform developed by HealthConnect, part of the Corilus Group, aimed at transforming patient-provider interactions. Designed for secure and user-friendly communication, Helena empowers patients to manage their healthcare data while facilitating collaboration across various healthcare professionals, including general practitioners, specialists, nurses, and pharmacists. The platform supports multiple languages—French, Dutch, and English—and

boasts over a million registered users, reflecting its widespread adoption in Belgium and beyond.

KEY FEATURES AND CAPABILITIES

Helena offers a range of services that enhance the accessibility and security of medical information. Through a robust patient portal, users can identify themselves via strong authentication, securely exchange health data, and access their medical documents. The platform's closed ecosystem ensures end-to-end encryption, meeting stringent GDPR requirements for data privacy. Healthcare providers connected through Helena can publish medical documents, such as prescriptions and laboratory results, directly to patients. The integration with national health data networks (e.g., Vitalink, COZO, and RSW) allows Helena to consolidate health records from various sources, providing a comprehensive view of a patient's medical history.

IMPACT ON HEALTHCARE PRACTICES

Helena's deployment has significantly impacted healthcare workflows by streamlining communication and data sharing. Patients benefit from easy access to their medical records, while healthcare professionals can improve continuity of care through shared, up-to-date information. The platform's intuitive design ensures a seamless user experience, even for elderly patients who may require assistance with specific tasks like document sharing.
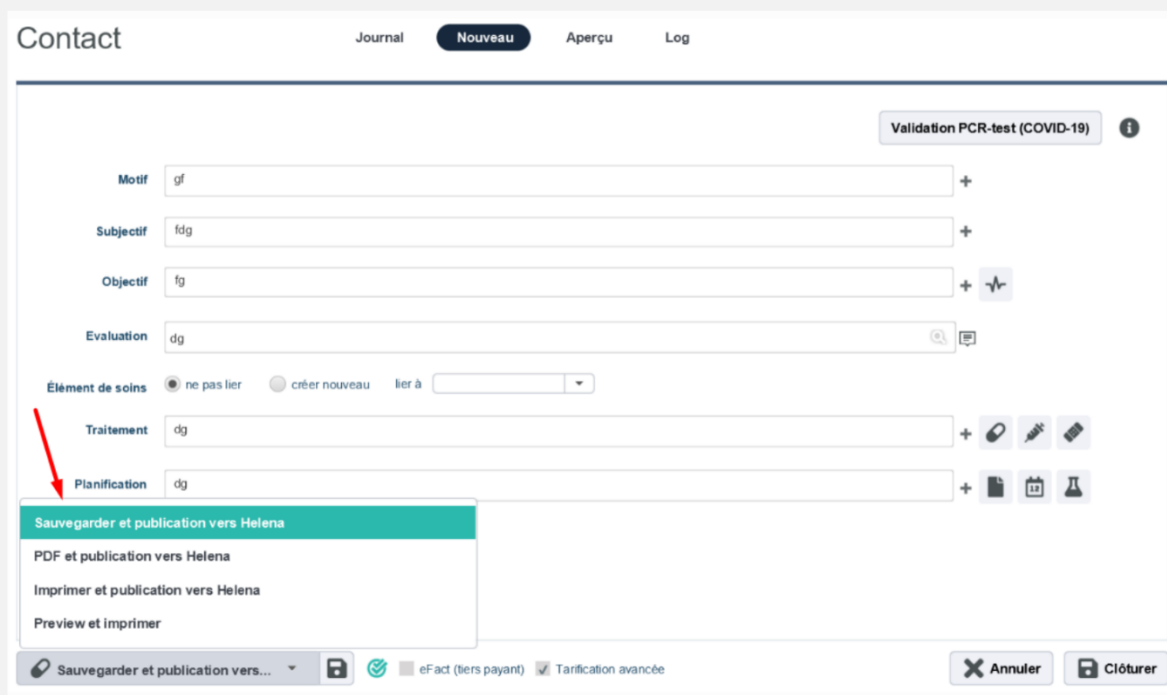

Figure 2 : Sample CareConnect GP Screen

INTEGRATION AND SECURITY STANDARDS

The Helena platform is integrated into existing healthcare software, including CareConnect and HealthOne, making it accessible across various care settings. It complies with international standards for health information exchange, employing

web services and formats like HL7 and FHIR. Helena's environment is certified under ISO 27001 and 9001, and data is encrypted through Combell's secure hosting solutions. Authentication via ITSME further enhances security, ensuring that only verified users can access sensitive information.
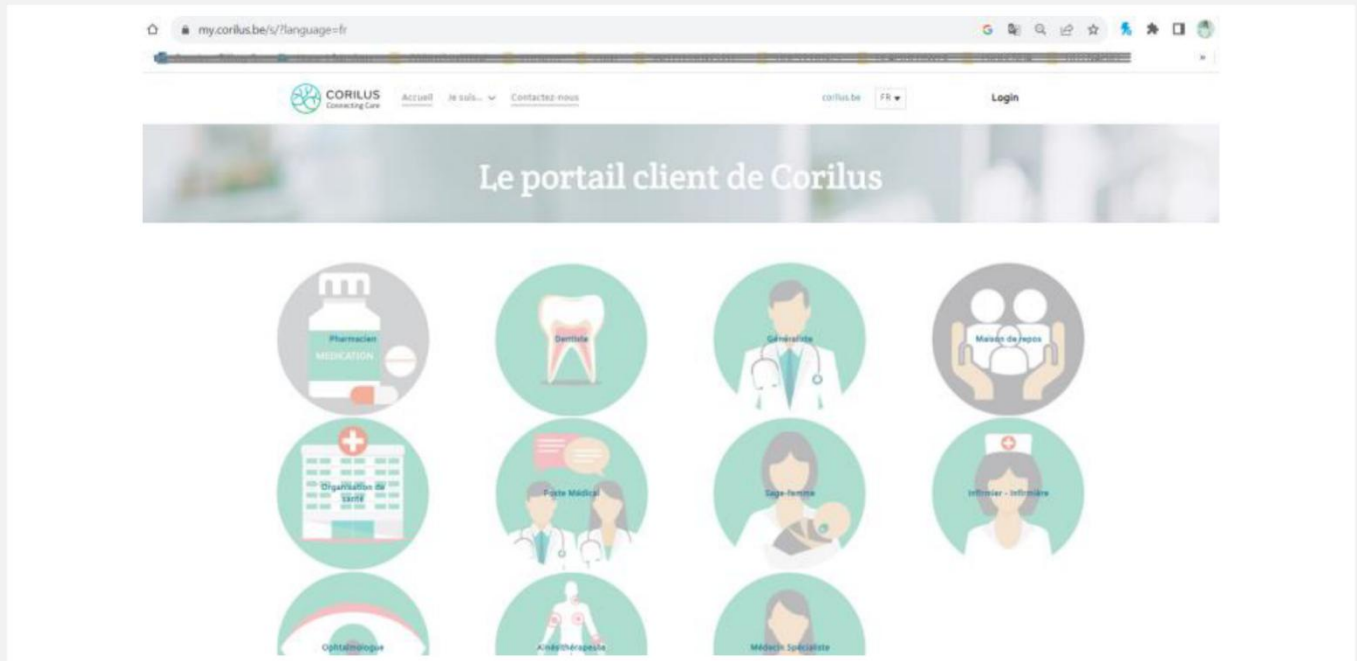

Figure 3 : Client Portal

BUSINESS MODEL AND MARKET POSITION

Helena is offered free to patients, while professional versions—Helena Pro—are available through subscription models, tailored to different care providers' needs. The platform's strategic integration with Corilus' other products under the "Connecting Care" initiative supports its commercial viability, fostering a wide customer base of over 47,000 healthcare organizations. Although currently focused on the Belgian market, Helena's robust design positions it for potential expansion, contingent on meeting international security and authentication requirements.

CURRENT FUNCTIONALITIES

Helena integrates various services to support both healthcare professionals and patients. It connects users to national health networks such as Vitalink, COZO, and Réseau Santé Wallon, offering a unified point of access for medical records. The platform allows patients to securely share data with healthcare providers, facilitating end-to-end encrypted communication without needing to leave the secure environment. This approach eliminates the risks associated with using unsecured methods (e.g., email) for sharing sensitive documents like lab reports.

Helena is also connected to a wide range of healthcare providers, including general practitioners, hospitals, and laboratories, which can publish information directly to a patient's electronic medical record. The platform supports strong personal authentication protocols, such as ITSME and the Federal Authentication Service (FAS), ensuring that patient data is accessed only by authorized individuals.

Additionally, Helena's secure hosting environment complies with ISO 27001 and ISO 9001 certifications, providing a reliable framework for data protection .

PLANNED ENHANCEMENTS

Short-term developments include enabling patients to request prescription renewals directly through the platform, thus reducing unnecessary visits to healthcare providers. Future updates aim to introduce two-way communication features, such as allowing patients to respond to healthcare messages and complete structured questionnaires for pre-operative assessments.
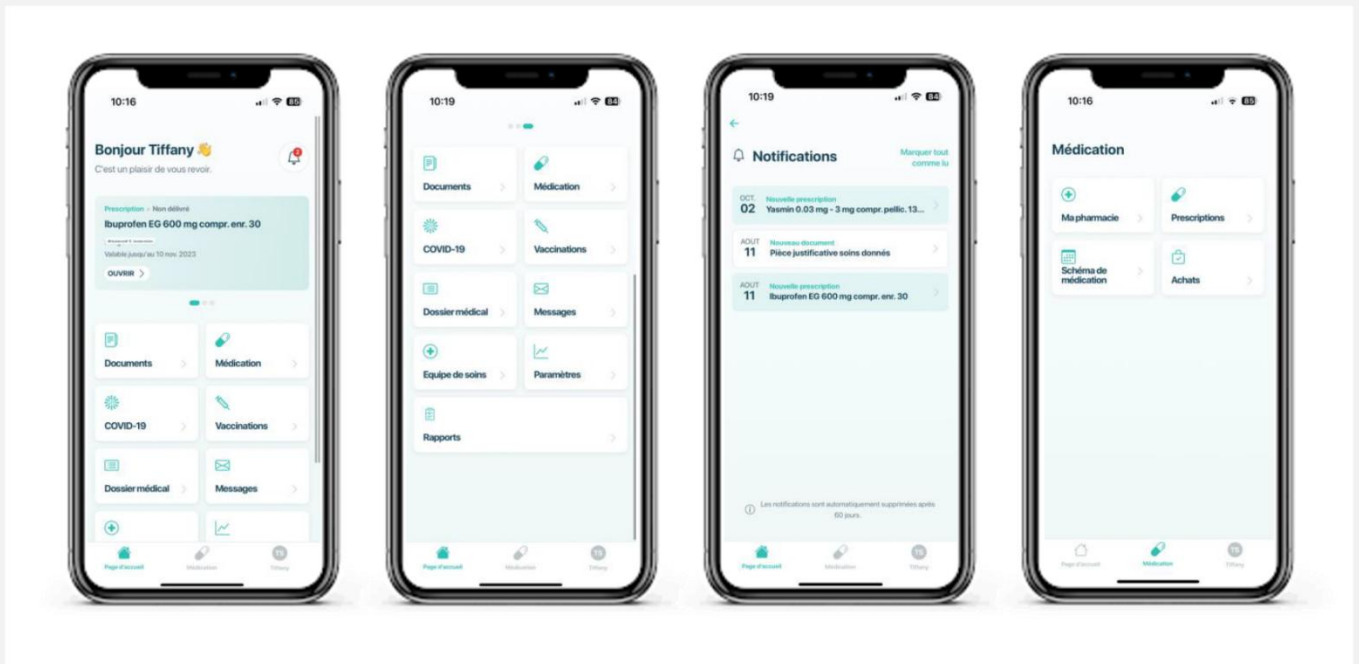

Figure 4 : Sample Patient Screens

HealthConnect has a development roadmap that includes several key features aimed at expanding Helena's capabilities:

- **Prescription Management**: A new functionality will allow patients to propose recurring prescription renewals through the platform, reducing the need for telephone calls or in-person visits solely for prescription purposes. This feature aims to streamline the process and enhance patient convenience .

- **Two-Way Communication**: Future updates will introduce interactive communication tools, enabling patients to respond to messages from healthcare providers and complete structured health questionnaires. This is expected to improve pre-operative assessments and other patient-provider interactions .

- **Coordination Across the Care Pathway**: Plans to link healthcare providers' schedules through the platform are intended to facilitate better organization of care pathways, supporting integrated care approaches. This will help bridge the gap between different levels of care, including primary and secondary providers .

- **Hospital Integration**: Efforts are underway to expand Helena's use within hospitals, allowing for more efficient specialist communication and document sharing. This is particularly relevant for replacing traditional paper-based methods with secure, digital solutions that streamline information exchange .

INTEGRATION AND USER FEEDBACK

The Helena platform benefits from constant user feedback, which guides its continuous development. Since its launch in 2020, the platform has been integrated with various electronic medical record systems like CareConnect and HealthOne. This integration has made Helena accessible at the front-line care level, while an open approach to software connectivity allows the platform to interface with other systems, ensuring a broad reach across the healthcare ecosystem .

To validate new features, HealthConnect employs rigorous testing methodologies, including unit testing, integration testing, and pilot programs with user groups. This approach ensures that updates are thoroughly vetted before being released, thereby maintaining the platform's reliability and ease of use.

THE COMPANY : HEALTHCONNECT

HealthConnect is a dynamic digital health company operating under the Corilus Group, a leading provider of healthcare software solutions. Established to drive innovation in ambulatory care, HealthConnect focuses on connecting healthcare providers—including general practitioners, specialists, nurses, and pharmacies—with patients and other stakeholders such as hospitals and laboratories. Through its flagship platform, Helena, HealthConnect aims to streamline healthcare processes and enhance communication across the care continuum.

COMPANY BACKGROUND AND GROWTH

HealthConnect is part of Corilus, which has a strong market presence in Belgium, France, and Tunisia, with annual revenues exceeding €500 million. Corilus' experience in healthcare technology has been a crucial factor in HealthConnect's growth and development, allowing the company to leverage a well-established infrastructure and a loyal customer base of over 47,000 organizations. Since the inception of Helena in 2018, the platform has rapidly expanded, with over one million users registered as of early 2023.

STRATEGIC DEVELOPMENT AND LEADERSHIP

The company benefits from a seasoned management team with deep expertise in healthcare technology and business development. Dirk Van Lerberghe, CEO, brings extensive experience in software and healthcare management, guiding HealthConnect's strategic initiatives. The leadership team also includes specialists in finance, product development, and technology, who have played a significant role in scaling Helena and integrating it into the broader "Connecting Care" ecosystem.

HealthConnect's strategic vision involves continuous platform enhancement based on real-world user feedback. The company is committed to driving innovation

through iterative development cycles, aiming to meet evolving healthcare needs and regulatory standards. With a strong foundation in Belgium, HealthConnect is poised to explore international growth opportunities, focusing on markets where data security and healthcare interoperability are paramount.

FINANCIAL STABILITY AND INVESTMENTS

HealthConnect operates as a profitable entity within the Corilus Group, supported by investments from Rivean Capital, a private equity firm specializing in the European mid-market. This financial backing has enabled the company to pursue its growth strategies without the need for external fundraising for the Helena platform specifically. HealthConnect's integration with Corilus' other software products further strengthens its financial outlook, as the company benefits from shared resources and economies of scale.

INTELLECTUAL PROPERTY AND TECHNOLOGICAL CAPABILITIES

The intellectual property for Helena is wholly owned by HealthConnect, ensuring full control over the platform's development and future direction. The company prioritizes compliance with international health data standards, employing advanced encryption and authentication technologies to safeguard user information. By utilizing its in-house "software factory," HealthConnect continuously updates Helena's capabilities, ensuring it remains at the forefront of digital health innovation.

COMMITMENT TO QUALITY AND SECURITY

HealthConnect's dedication to quality is reflected in its adherence to ISO 27001 and 9001 certifications, which cover data security and quality management. The company also integrates industry best practices for software development, including rigorous testing and validation processes, to maintain high standards across all its products. This commitment to security and compliance underpins HealthConnect's reputation as a trusted provider in the digital health space.

As HealthConnect continues to expand its services and enhance Helena, the company's focus remains on bridging gaps in healthcare communication and improving patient outcomes. Its combination of financial stability, strategic vision, and technological expertise positions HealthConnect as a key player in the future of digital healthcare.

FACTSHEET

General information

Company Name	Corilus NV – HealthConnect NV
CEO	Dirk Van Lerberghe
Headquarter	Rue du Moulin Brabant 2
	5130 Gembloux
	BELGIUM
Contact	(+32) 81 77 99 30
Creation date	1986
Number of Employees	540
Number of locations	7
Turnover	500M€+ (2022)

Number of customers	47,000
Number of connected users	1,099,948

Key dates

2018	start of Helena's development
2019	launch of the Helena Patient website
October 2020	connection Recipe
December 2020	integration 1st lab
February 2021	integration of Helena in CareConnect GP
March 2021	integration of Helena in HealthOne
29 March 2021	connection Vitalink
September-October 2022	creation App Helena Patient
February 2023	1 million people connected to Helena
February 2023	COZO liaison
February 2023	possibility of recording vital parameters
May 2023	RSW liaison
6 November 2023	AssurMed project
February 2024	Awarded WeLink.Care label

A FEW WORDS ABOUT THE KEY PEOPLE

HealthConnect's leadership team comprises experienced professionals who bring diverse expertise in healthcare, technology, and business development, driving the company's growth and innovation. Key members of the team include:

Dirk Van Lerberghe, CEO

Dirk is a seasoned leader in the software and healthcare sectors, with a career spanning roles such as Sales Director at Syncron N.V., General Manager at Real Software, and founder of Essensys N.V. His strategic vision has been instrumental in guiding HealthConnect's growth, particularly in the development and commercialization of Helena.

Hildegard Verhoeven, CFO

With a strong background in finance and business, Hildegard has held senior positions such as CFO at Artwork Systems and Artexis Belgium. She brings extensive experience in financial management to HealthConnect, ensuring the company's financial stability and supporting its strategic investments.

Dave Schoovaerts, CPO

Dave has a background in change management and business development, having served in roles ranging from Account Manager to COO within HealthConnect. As Chief Product Officer, he leads product management, focusing on evolving Helena's features to meet user needs and regulatory requirements.

Jelle Gacoms, CTO

A technology expert with experience at Accenture, Jelle co-founded HealthConnect and currently oversees the technological strategy as Chief Technology Officer. He is

responsible for guiding the development of Helena's platform architecture and ensuring its compliance with industry standards.

Luc Van Haver, CSO

Luc brings his expertise in IT consultancy and strategic sales to his role as Chief Sales Officer. His career includes managing consultancy businesses and driving sales initiatives at HealthConnect, helping to expand the company's reach across the healthcare sector.

Els Devoldere, HR Manager

With a degree in commercial sciences, Els has a solid background in human resources, having served as an HR Business Partner and consultant at Adecco. She oversees HR strategies at HealthConnect, focusing on talent development and organizational growth.

Nathalie Verfaillie, Executive Assistant

Nathalie brings administrative expertise from her previous roles at Robert Half Belgium and Barco NV. As Executive Assistant, she supports the leadership team in managing day-to-day operations and strategic initiatives.

Wouter Fonck, Executive Director

A computer science specialist, Wouter has been with HealthConnect since its inception. As Executive Director, he contributes to the company's technical leadership, ensuring alignment between technological development and business objectives.

Jan Grauwels, Product Director

With a background in engineering and over a decade of experience in project management at HealthConnect, Jan now serves as Product Director. He is focused on enhancing the user experience and functionality of the Helena platform for healthcare professionals.

DISRUPTION SCORE

The Helena platform received a disruption score of 83%, earning the WeLink.Care Label and placing it among the notable digital health solutions in the library. This score reflects the platform's varied impact across four key dimensions: Business Model, Solution Maturity, Change of Practices, and User Experience. Each dimension shows a different level of achievement, from average to very good, providing a nuanced view of Helena's strengths and areas for improvement.

BUSINESS MODEL

Helena's business model is evaluated as very good, primarily due to its financial stability and strategic integration within Corilus' broader "Connecting Care" initiative. The platform benefits from predictable revenue streams via subscription-based services for Helena Pro and is supported by Corilus' existing customer base and infrastructure. However, the absence of specific data on customer acquisition

costs and retention rates indicates room for better financial transparency and optimization. While Helena capitalizes on Corilus' resources, the lack of international ambitions may limit the platform's scalability beyond the Belgian market.
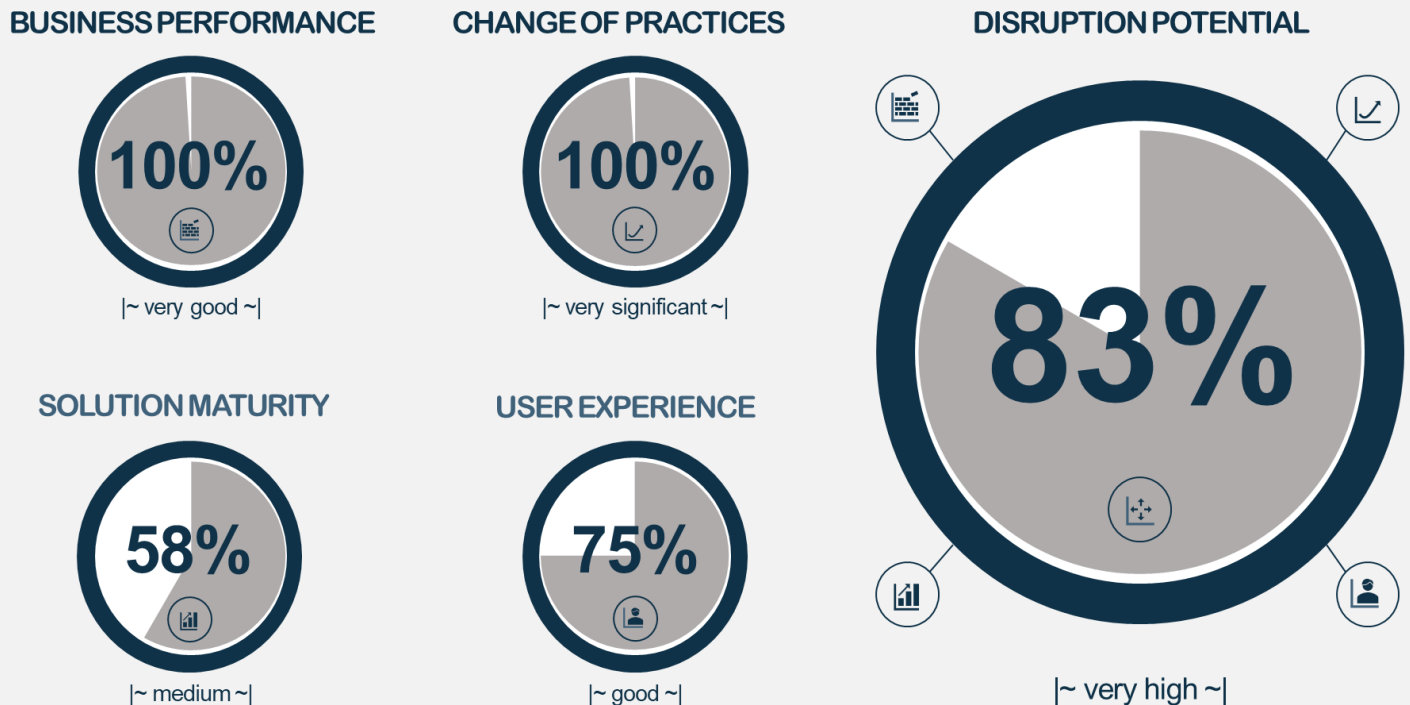

Figure 5 : WeLink.Care Disruption Scorecard

SOLUTION MATURITY

The solution maturity of Helena is considered good but not exceptional. The platform is well-developed and integrated with Belgian health data networks, reflecting a high level of operational readiness. It holds ISO certifications for security and quality management, indicating a commitment to high standards. However, Helena's maturity is tempered by its lack of clinical validation through peer-reviewed studies. While user feedback and iterative updates have driven improvements, the absence of formal evidence, such as Patient-Reported Outcome Measures (PROMs) and Patient-Reported Experience Measures (PREMs), suggests a need for more rigorous scientific validation to strengthen its credibility.

CHANGE OF PRACTICES

Helena shows an above-average impact on changing healthcare practices. The platform enhances data accessibility, communication between providers, and administrative efficiency, addressing many aspects that improve care delivery. Its integration with health networks supports continuity of care, and the automation of certain processes like prescription renewals is a step towards modernizing workflows. However, while Helena effectively addresses core functionalities, its influence on more transformative changes, such as deeply integrating care pathways or significantly altering provider behavior, remains limited. These aspects reflect an incremental rather than a disruptive change in healthcare practices.

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USER EXPERIENCE

User experience is rated as good, especially in terms of accessibility and security features, such as strong authentication methods and intuitive design. Patients find it easy to navigate the platform, and healthcare professionals appreciate the seamless integration with EMR systems like CareConnect and HealthOne. However, the experience could be enhanced by improving the consistency of data across the platform and expanding the range of accessible healthcare professionals. Some users have noted occasional challenges in accessing certain features or finding specific information, suggesting that the platform could further refine its user interface and functionalities to better meet diverse user needs.

The disruption score of 83% reflects Helena's ability to make meaningful improvements across several areas while also highlighting the platform's limitations in achieving more transformative change. Addressing the gaps in clinical validation, financial transparency, and user experience consistency could help elevate Helena's impact and position it more competitively in the evolving digital health landscape. This balanced assessment provides a clear view of the platform's current state and the opportunities for further development.
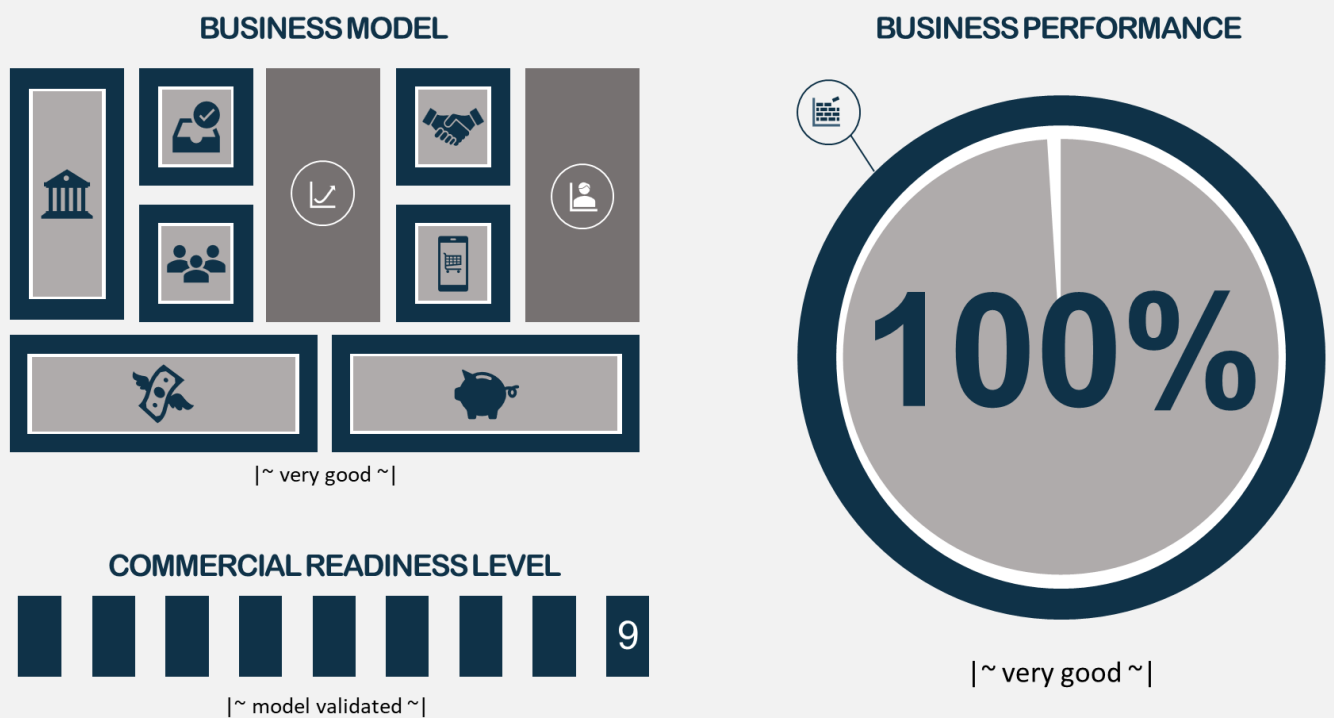

Figure 6 : Business Model Score

BUSINESS MODEL

The Helena platform's business model demonstrates a robust approach to financial sustainability and market growth. It encompasses various aspects, including Key Resources, Cost Structure, Financing, Revenue, Intellectual Property, Customer Relations, and Commercial Readiness Level (CRL). Together, these elements form a comprehensive strategy that supports Helena's continued development and market presence.

KEY RESOURCES

Helena leverages the strengths of its parent company, Corilus, which provides a solid foundation of healthcare expertise and technological infrastructure. HealthConnect, the entity behind Helena, benefits from Corilus' established network of 47,000 healthcare organizations and a well-integrated product portfolio. The platform's development is supported by a dedicated team of skilled professionals in software engineering, product management, and customer support, ensuring the resources necessary to sustain ongoing innovation and user satisfaction.

COST STRUCTURE

The cost structure for Helena is efficiently managed through integration with Corilus' broader operations, which helps distribute development and maintenance expenses across multiple product lines. By leveraging economies of scale, HealthConnect can keep costs under control while continuously enhancing the platform's features. The subscription-based model for Helena Pro, used by healthcare professionals, generates predictable revenue streams that offset the platform's development and operational costs. Additionally, the free access for patients minimizes barriers to adoption and drives user growth without incurring significant additional expenses.

FINANCING

HealthConnect benefits from strong financial backing through Corilus, which is supported by Rivean Capital, a private equity firm with a focus on the European mid-market. This strategic investment has allowed HealthConnect to pursue growth initiatives without the need for external fundraising specifically for the Helena platform. The availability of capital enables the company to continue expanding the platform's capabilities while maintaining financial stability. HealthConnect's access to such financing ensures it can invest in future developments and explore potential market expansions.

REVENUE

The revenue model for Helena is clearly defined and aligned with market needs. While the platform is free for patients, revenue is generated through subscription plans for Helena Pro, which offer enhanced features for healthcare professionals, such as secure messaging, appointment scheduling, and data management tools. The subscription pricing varies based on the number of users and functionalities required, providing flexibility for different types of healthcare providers. This model ensures sustainable revenue growth while maintaining the platform's accessibility for end users.

INTELLECTUAL PROPERTY

Helena's intellectual property is fully owned by HealthConnect, giving the company complete control over its technology and development roadmap. The platform's proprietary software and integration capabilities are protected through copyright and trademark measures, safeguarding the company's unique offerings. HealthConnect's commitment to ongoing research and development ensures that the platform remains competitive, with continuous updates and new features designed to meet evolving market demands.

CUSTOMER RELATIONS

HealthConnect manages its customer relations effectively, emphasizing user support and engagement to ensure a positive experience for both patients and healthcare professionals. The company offers a helpdesk and various support channels, including online resources and training for healthcare providers. By actively gathering user feedback, HealthConnect continuously improves Helena's functionalities, ensuring the platform meets the changing needs of its users. The company's strong focus on customer satisfaction helps build long-term relationships and loyalty.

COMMERCIAL READINESS LEVEL (CRL)

Helena has reached a CRL of 9, indicating full commercial maturity. The platform is widely adopted across Belgium, with over one million registered users and substantial integration into the national healthcare infrastructure. Helena's market competitiveness is evident in its ability to cater to diverse user groups, from individual patients to large healthcare organizations. The platform is positioned for potential international expansion, although HealthConnect currently focuses on deepening its penetration in existing markets.

ADDITIONAL INSIGHT ON THE BUSINESS MODEL

Helena's business model is characterized by strategic integration, cost management, revenue generation, and partnerships, each contributing to its sustainability and market positioning. Below are key additional insights that further elaborate on these aspects.

Strategic Integration and Cost Management

The integration of Helena within Corilus' broader "Connecting Care" initiative allows for efficient cost management by sharing resources across multiple product lines. This strategy mitigates development and operational expenses, spreading costs over Corilus' various business units. The platform benefits from internal funding, supported by Corilus' stable revenue streams and financial backing from Rivean Capital. This approach has eliminated the need for additional fundraising rounds for Helena's development, ensuring financial stability even as the platform continues to evolve.

Revenue Generation through a Freemium Model

Helena employs a freemium pricing strategy, offering free access for patients while generating revenue through subscriptions for healthcare professionals via Helena Pro. The professional subscription plans are designed with tiered pricing based on the level of service, appointment volume, and included features, making the platform adaptable to diverse healthcare settings. Although this model supports scalability and market flexibility, there is limited visibility into customer acquisition costs and retention rates, which could provide a more comprehensive understanding of the platform's financial efficiency.

Strategic Partnerships and Integration

Helena's business model is strengthened by strategic partnerships with major healthcare systems such as CareConnect and HealthOne, enabling seamless

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integration without additional costs for healthcare providers. These collaborations extend to interoperability with national health data networks like Vitalink and COZO, positioning Helena as a readily adoptable solution within the existing healthcare infrastructure. This approach not only reduces entry barriers for adoption but also enhances the platform's appeal by ensuring it remains an integral part of the healthcare ecosystem.

Market Focus and International Scalability

While Helena is well-established in the Belgian market, its international scalability is limited by a current focus on domestic deployment. The platform's robust design does present potential for international expansion; however, the need to comply with country-specific authentication and regulatory standards poses a significant challenge. Addressing these hurdles would be crucial for broader global adoption and could unlock new growth opportunities beyond the Belgian healthcare market.

SOLUTION MATURITY

The Helena platform demonstrates a solid level of maturity across various aspects of digital health, reflecting its readiness to support real-world healthcare needs. The evaluation of Helena's solution maturity is based on several sub-topics, including Scientific Validation, Real-Life Studies, Solution Design, and Technology Readiness Level (TRL). While the platform has made significant strides, some areas present opportunities for further development to enhance its impact.
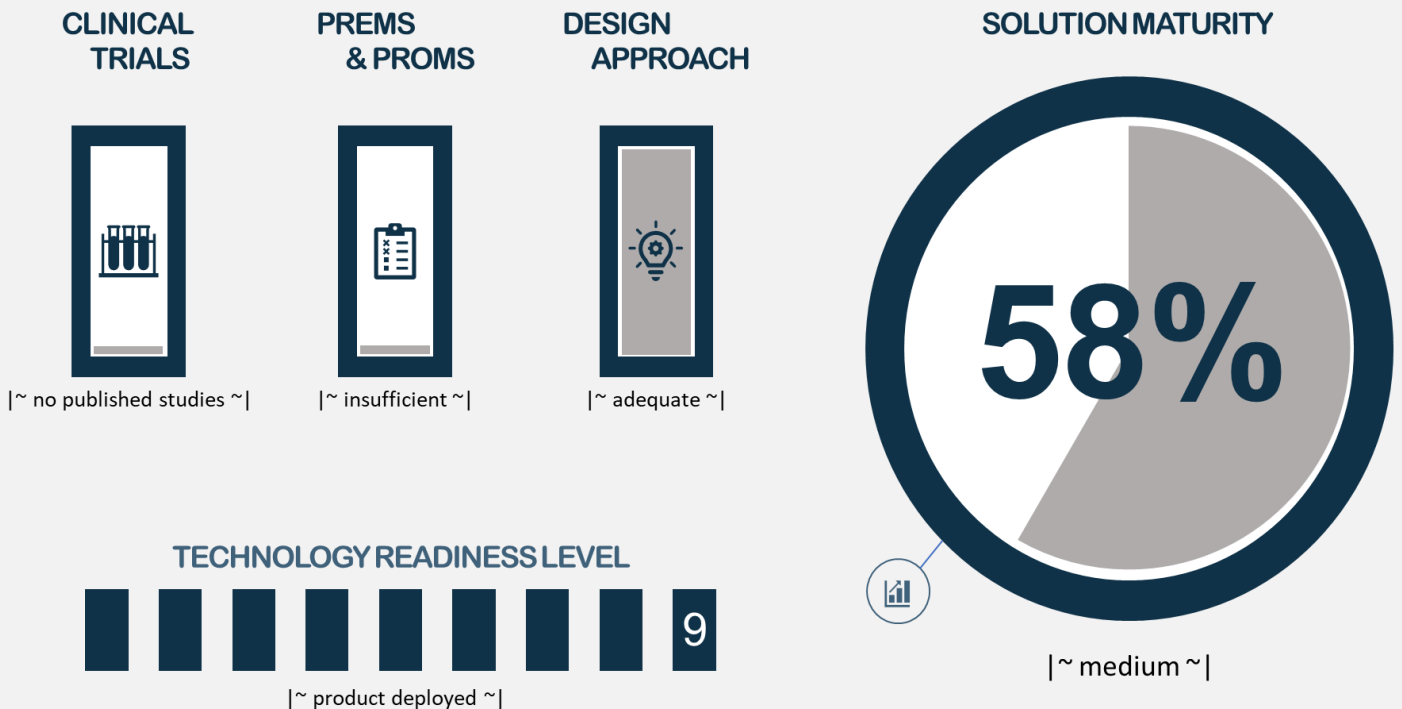
CLINICAL TRIALS

|~ no published studies ~|

PREMS & PROMS

|~ insufficient ~|

DESIGN APPROACH

|~ adequate ~|

SOLUTION MATURITY

58%

|~ medium ~|

TECHNOLOGY READINESS LEVEL

9

|~ product deployed ~|

Figure 7 : Solution Maturity Score

SCIENTIFIC VALIDATION

Helena has not yet undergone comprehensive scientific validation through clinical studies, which limits the availability of evidence-based metrics such as Patient-Reported Outcome Measures (PROMs) and Patient-Reported Experience Measures (PREMs). Conducting clinical research to evaluate the platform's effects on healthcare outcomes and user experiences would significantly strengthen its scientific foundation. Such studies would not only validate the platform's benefits but also provide critical data for further refinement of its features.

REAL-LIFE STUDIES

While there are no formal publications specifically assessing Helena's impact through real-life studies, the platform's development is guided by continuous user feedback from healthcare professionals and patients. This iterative approach ensures that updates address practical challenges and user needs. However, publishing studies that document Helena's real-world application and its effects on patient care would add credibility to its adoption and provide valuable insights for broader implementation.

SOLUTION DESIGN

Helena's design follows best practices for digital health innovation, incorporating user feedback to shape its features and functionalities. The platform is tailored to meet the needs of both patients and healthcare providers, with a focus on ease of use, secure data access, and seamless integration into existing workflows. Its compatibility with various health information systems, such as CareConnect and HealthOne, demonstrates a thoughtful approach to interoperability. Nonetheless, expanding the design process to include more formal user-centered design principles and usability testing could further optimize the platform's interface and overall experience.

TECHNOLOGY READINESS LEVEL (TRL)

Helena has achieved the highest Technology Readiness Level, TRL 9, indicating that it is fully operational and proven in real-world healthcare environments. The platform is widely deployed across the Belgian healthcare system, integrating seamlessly with national health data networks such as Vitalink and COZO, and connecting a broad range of healthcare providers, including hospitals, general practitioners, and pharmacies. Its compliance with international standards for data security, demonstrated through ISO 27001 and 9001 certifications, ensures robust protection of sensitive health information.

The platform's extensive use in live healthcare settings has validated its functionality, stability, and effectiveness, allowing Helena to support comprehensive patient care and administrative tasks. Its readiness extends beyond core functionalities, with advanced features such as prescription management, secure messaging, and data sharing across various care settings. The platform's continued development roadmap focuses on expanding its capabilities further while maintaining the high standards required for secure and efficient healthcare delivery.

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ADDITIONAL INSIGHT ON THE SOLUTION MATURITY

The Helena platform has demonstrated significant advancements in its development and deployment, though some areas remain for further maturation and validation.

User-Centred Development and Iterative Improvements

Helena's development has been strongly guided by continuous user feedback, which has shaped the platform's features and functionalities since its launch in 2020. Early pilot testing with select healthcare providers allowed for real-world feedback to inform refinements before broader rollout. This user-centered approach ensures that updates address practical challenges encountered by both healthcare professionals and patients. The platform's ongoing evolution reflects a commitment to adapting based on user experiences, enabling iterative improvements that enhance functionality and usability over time. However, while feedback-driven updates have been beneficial, the lack of more formalized user-centred design principles and systematic usability testing could limit the platform's ability to optimize its interface comprehensively.

Integration with Existing Systems and Data Networks

The platform's integration with well-established electronic medical record (EMR) systems such as CareConnect and HealthOne has facilitated its widespread adoption in Belgian healthcare. Additionally, Helena's interoperability extends to multiple national health data networks, including Vitalink and COZO, which support the centralization of patient data from various sources. This interconnectedness not only streamlines access to medical information but also allows for the secure exchange of data across different healthcare settings. Despite these strengths, feedback has pointed out some gaps in data integration, such as inconsistencies in medication records and incomplete vaccination histories, indicating that further refinements in data aggregation processes are needed to achieve seamless information sharing across all connected systems.

Planned Enhancements and Roadmap

HealthConnect's roadmap for Helena includes several key enhancements aimed at expanding its functionalities. Short-term plans involve enabling patients to request prescription renewals electronically and improving synchronization across healthcare professionals' schedules. These features are designed to reduce administrative burdens and support integrated care pathways. In the longer term, the introduction of two-way communication functionalities, such as allowing patients to respond to healthcare provider messages and complete structured health questionnaires, is intended to enhance patient engagement and streamline pre-operative assessments. There is also a strategic focus on improving hospital integration to facilitate better document sharing and coordination with specialists, which could replace traditional paper-based communication methods.

Scientific Validation and Real-Life Studies

While Helena has reached a high level of operational readiness (TRL 9), it lacks comprehensive scientific validation through clinical studies. The absence of peer-

reviewed evidence, including Patient-Reported Outcome Measures (PROMs) and Patient-Reported Experience Measures (PREMs), limits the platform's ability to demonstrate its impact on health outcomes and user satisfaction. Conducting real-life studies and publishing findings would not only strengthen the scientific foundation of the platform but also provide valuable insights that could guide future developments and support broader adoption.

CHANGE OF PRACTICES

Helena impacts healthcare practices by transforming data management, optimizing care practices, enhancing automation, and ensuring compliance. Each aspect is detailed below, showcasing how the platform contributes to meaningful changes in healthcare delivery.
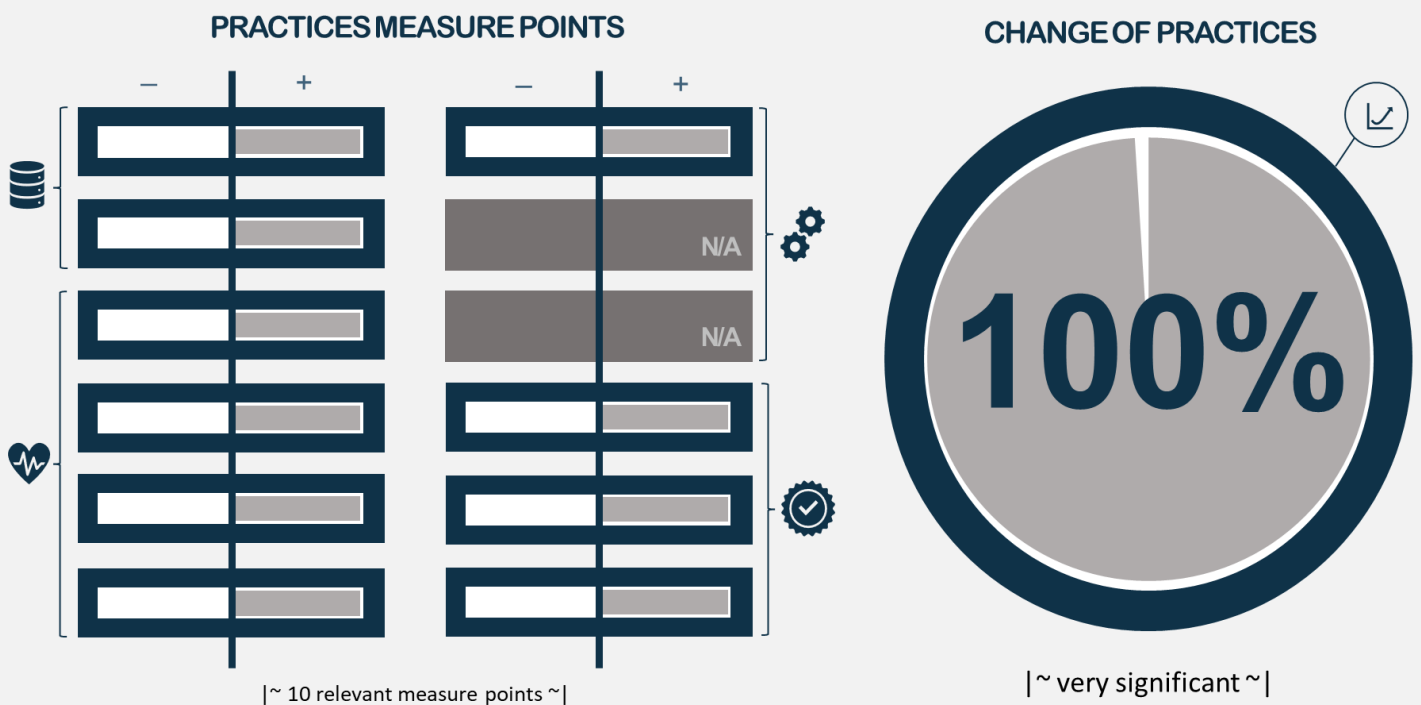

Figure 8: Change of Practices Score

DATA MANAGEMENT

Helena improves healthcare data management by addressing both data quality and data access. The platform ensures that medical information is accurate, consistent, and up-to-date, reducing errors and enhancing the reliability of health records. Automated updates from healthcare providers, coupled with patients' ability to verify their data, contribute to maintaining high data quality.

The platform also enhances data access by providing a secure, centralized repository for patients and healthcare professionals to view medical records, prescriptions, and lab results. Its integration with national health networks such as COZO, RSW, and Vitalink ensures that data from various sources is aggregated into a single, accessible platform, streamlining the flow of information and minimizing fragmentation.

CARE PRACTICES

Helena optimizes care practices by improving continuity of care, effectiveness, inter-professional communication, and efficiency. The platform supports coordinated care by enabling seamless communication between healthcare providers, ensuring that all relevant stakeholders have access to the latest patient information. This is especially beneficial for patients with chronic conditions who require multidisciplinary care.

The platform enhances the effectiveness of care delivery by making essential health information readily available, enabling more informed clinical decision-making. Helena also boosts efficiency by reducing the need for paper-based processes and automating tasks such as prescription renewals and appointment scheduling, allowing healthcare providers to focus more on direct patient care. Integration with EMR systems like CareConnect and HealthOne further facilitates efficient workflows across different healthcare settings.

AUTOMATION

Helena supports automation by enhancing flexibility, decision support, and process automation in healthcare delivery. The platform's flexible design allows it to be accessed from multiple devices, making it convenient for both patients and healthcare professionals to interact with health information as needed. This adaptability extends to various healthcare settings, allowing Helena to fit seamlessly into existing workflows.

The platform aids decision support by providing clinicians with timely access to comprehensive patient data, including historical records and real-time updates. Planned enhancements, such as automated alerts for abnormal lab results, will further strengthen the platform's decision-support capabilities. Helena's automation features, including electronic prescription renewals and appointment reminders, reduce manual tasks, allowing healthcare professionals to focus more on patient-centered care.

COMPLIANCE

Helena maintains a strong compliance framework by addressing interoperability, security, and adherence to regulatory standards. The platform supports GDPR compliance and holds ISO 27001 and 9001 certifications, which ensure robust data security and quality management practices. Strong encryption protocols and authentication methods, including ITSME, help protect sensitive health information, ensuring that only authorized users can access the data.

Helena's interoperability is facilitated through its adherence to international standards such as HL7 and FHIR, allowing for seamless integration with other healthcare systems. This capability reduces the administrative burden associated with data sharing and supports coordinated care across different providers. The platform's comprehensive compliance measures make it a reliable choice for healthcare organizations seeking to meet regulatory requirements while improving operational efficiency.

ADDITIONAL INSIGHT ON THE CHANGE OF PRACTICES

Helena brings incremental changes to healthcare practices by facilitating data access, improving care processes, and integrating automation features, though some aspects of its impact remain limited.

Gaps in Data Consistency and Integration

While Helena enhances data accessibility by integrating multiple health data sources into a unified platform, some issues with data consistency persist. For instance, discrepancies in medication records and gaps in the recording of non-COVID-19 vaccinations have been noted. These issues suggest that Helena's data aggregation processes need further refinement to achieve comprehensive data quality across all connected providers. Addressing these gaps would not only enhance the platform's reliability but also support more effective clinical decision-making and patient monitoring.

Evolution of Care Practices

Helena supports modernizing care practices by improving inter-professional communication and administrative efficiency. Its integration with networks like COZO and Vitalink facilitates coordinated care, especially for patients requiring multidisciplinary attention. However, the platform's current limitations in coordinating care plans across different professionals restrict its ability to deliver deeply integrated care pathways. Planned developments, such as linking healthcare providers' schedules, are steps toward addressing this limitation, but further efforts are required to achieve more transformative changes in care practices .

Automation's Role in Workflow Optimization

Helena's automation features, including electronic prescription renewals and appointment scheduling, help reduce administrative workloads. These tools streamline routine tasks, allowing healthcare providers to allocate more time to patient-centered activities. Nevertheless, opportunities remain to expand automation's scope to cover additional workflows, such as structured data exchange between general practitioners and specialists. Enhancing automation in these areas would further optimize healthcare delivery and support integrated patient management .

Future Directions for Enhancing Impact

The platform's development roadmap includes features aimed at bolstering Helena's role in changing healthcare practices. Plans to introduce two-way communication capabilities and improve hospital integration are expected to address some of the current limitations. These enhancements could facilitate more interactive patient-provider exchanges and support better coordination of care across different levels of the healthcare system. However, achieving meaningful change will require continuous user feedback and iterative updates to ensure the platform remains responsive to evolving healthcare needs .

USER EXPERIENCE

Helena's overall user experience score reflects a strong performance, with an 80% rating, indicating that the platform effectively meets the needs of both healthcare professionals and patients. This dual-use nature is a key feature of Helena, as it is designed to serve the different requirements of both groups by facilitating secure communication, data sharing, and health management. The platform enables healthcare professionals to coordinate patient care and access medical records seamlessly, while also empowering patients to actively participate in their own healthcare journey.

The platform's inclusion of professional and patient functionalities is rooted in its goal to improve healthcare delivery across the entire continuum of care. For professionals, Helena enhances collaboration, data management, and administrative efficiency. For patients, it supports treatment adherence, access to medical information, and engagement with healthcare providers. This versatility is a core strength of the platform, although it also presents unique challenges in balancing the user interface and features to cater to both user groups effectively.

The score reflects Helena's ability to integrate various user needs while also identifying areas for further improvements, such as enhanced data integration, more intuitive features for elderly users, and expanded automation capabilities. These efforts will be crucial in maintaining Helena's relevance and effectiveness in a rapidly evolving digital health landscape.
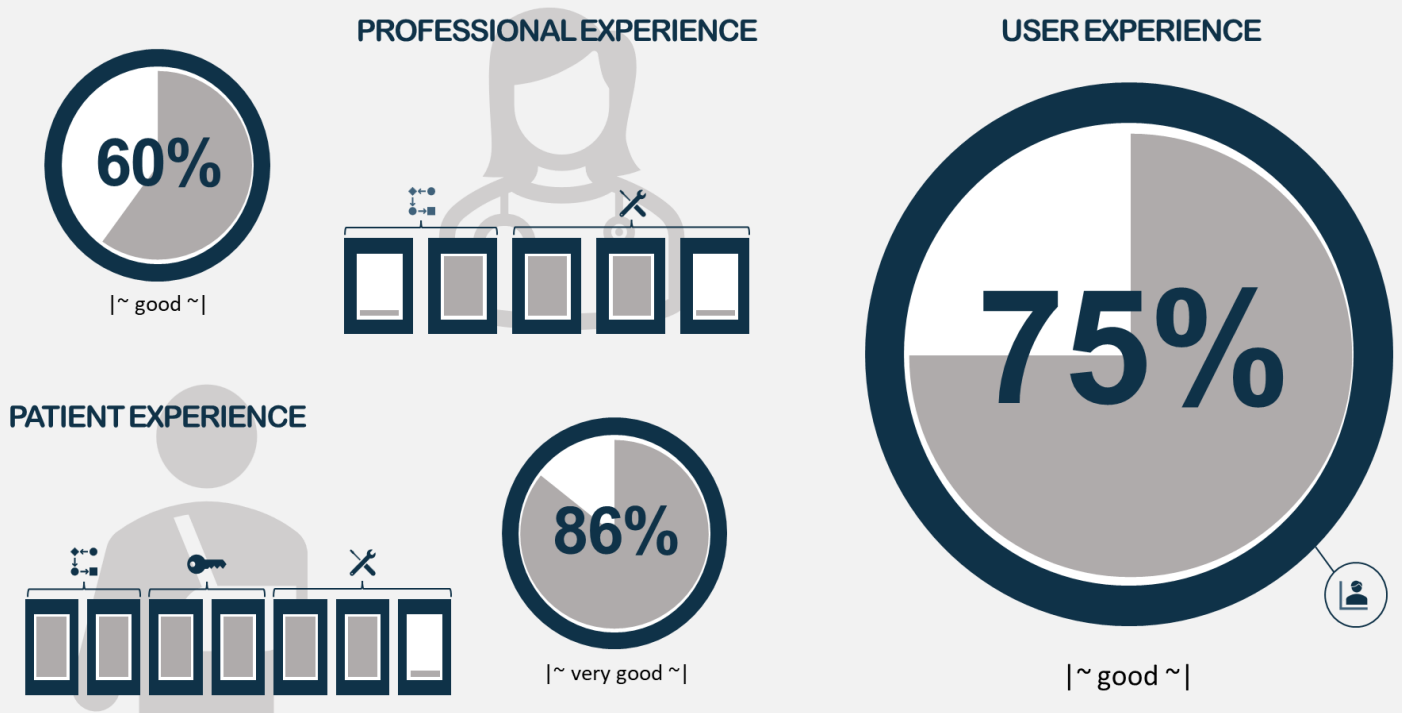

Figure 9 : User Experience Score

Let's have a closer look at the 2 perspectives.

THE PROFESSIONAL PERSPECTIVE

Helena's user experience for healthcare professionals focuses on two main areas: enhancing care through improved collaboration and supporting accessibility with robust user support, security measures, and adaptability. Below is an assessment of how the platform addresses these aspects.

CARE

Helena facilitates collaboration and supports the healthcare continuum by enabling healthcare professionals to work more effectively across various stages of patient care.

Collaboration

The platform allows for secure communication and information sharing among doctors, nurses, pharmacists, and other healthcare providers. It integrates seamlessly with electronic medical records (EMR) systems like CareConnect and HealthOne, enabling professionals to share patient data and updates quickly. This collaborative environment helps streamline care processes and improves the coordination of patient care, especially for those with complex or chronic conditions. However, the platform's collaboration tools could be further enhanced by adding features such as shared care plans or linked schedules for multidisciplinary teams to facilitate more comprehensive care coordination.

Healthcare Continuum

Helena addresses multiple stages of the healthcare continuum, including prevention, diagnosis, treatment, and follow-up. The platform supports continuity of care by allowing healthcare professionals to access a patient's comprehensive medical history, enabling more informed decision-making. Despite this, the platform's capabilities in care coordination are currently more focused on document sharing and communication, with limited functionality for fully integrating coordinated care pathways or managing transitions between different care levels.

ACCESSIBILITY

Helena's design emphasizes accessibility for healthcare professionals by providing effective user support, robust security features, and adaptability to different healthcare environments.

User Support

Helena offers various support channels, including a helpdesk and online resources, which are available to assist healthcare professionals in using the platform. This user support ensures that technical issues or user difficulties can be addressed promptly, enhancing the overall user experience. However, the frequency and quality of support could be further optimized by offering more in-depth training sessions or personalized onboarding for new users.

Security

The platform prioritizes data protection, employing strong encryption and authentication methods such as ITSME, in compliance with GDPR and ISO 27001/9001 standards. This ensures that sensitive patient data is kept secure and only accessible to authorized users. While security measures are robust, continuous monitoring and updates are essential to maintain compliance with evolving data protection regulations and address emerging cybersecurity threats.

Adaptability

Helena is designed to be flexible and can be accessed on multiple devices, including desktops, tablets, and smartphones, making it easy for healthcare professionals to use the platform in various settings. The platform's adaptability extends to integrating with different healthcare systems and workflows, allowing it to fit seamlessly into existing operations. However, the platform could benefit from additional customization options, enabling users to tailor certain features according to their specific clinical practices or preferences.

ADDITIONAL INSIGHTS ON THE PROFESSIONAL PERSPECTIVE

Helena's user experience for healthcare professionals has been generally positive, yet some areas need further refinement to fully meet the expectations and demands of clinical practice. The following insights highlight specific aspects of the platform that can be improved to optimize its utility for healthcare professionals.

Data Integration and Consistency Issues

Helena facilitates access to health information through integration with EMR systems and health data networks, but there are ongoing challenges with data consistency. For instance, healthcare professionals have noted that some prescription records and vaccination histories are not fully integrated, leading to incomplete patient information. These discrepancies can hinder clinical decision-making, particularly when trying to maintain a comprehensive view of a patient's medical history. Ensuring seamless integration across all data sources and addressing inconsistencies would enhance the platform's reliability and support more accurate patient care.

Role Clarification for Data Management

There is a lack of clarity regarding responsibilities for updating certain sections of Helena, such as "Messages" or specific document uploads. It is not always clear whether the onus is on healthcare professionals or other members of the care team to populate and maintain these records. Providing clearer guidelines and establishing standardized workflows for data entry and updates would improve the completeness of information available through the platform. This could also help avoid duplication of efforts or oversight in data management, ultimately supporting more efficient clinical practices.

Enhancing Automation for Clinical Workflows

While Helena's current features, such as electronic prescription renewals and document sharing, help reduce administrative burdens, the platform could further

enhance workflow automation. Expanding automation capabilities to include structured data exchanges, automated alerts for patient follow-ups, or clinical decision-support tools would significantly improve efficiency. These enhancements could allow healthcare professionals to focus more on direct patient care and less on routine administrative tasks, thus optimizing the use of their time.

User Support for Specific Professional Needs

Helena offers standard user support services, but healthcare professionals may benefit from more tailored assistance to address the unique challenges of clinical practice. Providing specialized training sessions, workshops, or user guides focused on advanced features—such as integrating Helena with existing clinical workflows or utilizing data analytics tools—could better equip professionals to leverage the platform's full potential. This would not only improve user satisfaction but also encourage wider adoption of advanced functionalities.

THE PATIENT PERSPECTIVE

Helena's user experience for patients encompasses various aspects that enhance the platform's utility, including care, cost, and accessibility. Below is an evaluation of how the platform addresses each of these areas.

CARE

Helena supports patient care by promoting observance and facilitating supervision to ensure patients adhere to their treatment plans and remain under effective medical monitoring.

Observance

The platform includes features such as medication schedules, reminders, and alerts that help patients adhere to their prescribed treatments. This functionality is particularly valuable for managing chronic conditions, where consistent medication intake is crucial. By providing a clear overview of prescribed treatments and upcoming medical appointments, Helena aids in improving treatment adherence and health outcomes. However, some users have noted that certain functionalities, like integration of all vaccination records or updates to prescription statuses, could be further refined to improve the tracking experience.

Supervision

Helena enables healthcare providers to monitor patient progress remotely by allowing patients to share vital health parameters and updates directly through the platform. This capability supports more proactive and continuous supervision, making it easier for doctors to detect any concerning trends or changes in a patient's condition. While the platform offers robust supervision tools, expanding the scope to include more detailed health monitoring options (e.g., integration with wearable devices) could further enhance its value for patient management.

COST

The platform empowers patients to take charge of their healthcare while also considering the financial aspects associated with digital health services.

Personal Sovereignty

Helena gives patients control over their health data by allowing them to view, manage, and share their medical records. This transparency supports informed decision-making and encourages patients to actively participate in their care. The platform also enables users to request prescription renewals and communicate with healthcare providers, further reinforcing a sense of autonomy. However, to fully support personal sovereignty, Helena could expand its tools for patient education, offering more resources that help users understand their medical conditions and treatment options.

Cost

The platform is free for patients, eliminating financial barriers to accessing their health information. While this makes Helena accessible, there could be a consideration for cost-related aspects if patients require additional services or features beyond what is freely available. For example, the platform does not currently include reimbursement mechanisms for digital health consultations or specific features offered by healthcare professionals using Helena Pro. Addressing these aspects could help minimize out-of-pocket expenses and enhance affordability.

ACCESSIBILITY

Helena prioritizes accessibility through user support, strong security measures, and the platform's adaptability to various patient needs.

User Support

Helena provides multiple support options, including a helpdesk and online resources, to assist patients in navigating the platform. While the interface is designed to be user-friendly, additional support for elderly users or those less familiar with digital tools could further improve the experience. Offering dedicated tutorials or personalized assistance for specific tasks, such as document sharing or health data tracking, could enhance overall usability.

Security

The platform ensures data protection through compliance with GDPR standards and certifications like ISO 27001/9001, employing strong encryption and authentication measures such as ITSME. These security protocols reassure patients that their personal health information is safeguarded against unauthorized access. However, as security threats evolve, ongoing updates and enhancements to the platform's cybersecurity measures will be essential to maintain patient trust.

Adaptability

Helena's flexible design allows patients to access the platform on various devices, including smartphones, tablets, and computers, accommodating different usage preferences. This adaptability ensures that patients can interact with their health data at their convenience, whether at home or on the go. While the platform is generally accessible, introducing more customizable settings (e.g., personalized

dashboards or interface themes) could further tailor the experience to individual patient preferences.

ADDITIONAL INSIGHT ON THE PATIENT PERSPECTIVE

While Helena provides valuable tools for patient engagement and health management, there are areas where further improvements can enhance the overall experience. The following insights address specific challenges that impact patient use of the platform.

Data Consistency and Access Issues

Patients have encountered challenges with data consistency, particularly in accessing comprehensive health records. For example, while COVID-19 vaccination records are available, other types of vaccinations may be missing from the system. Similarly, prescription records are not always up-to-date or fully integrated when multiple healthcare providers are involved. These inconsistencies can affect a patient's ability to maintain an accurate overview of their health information. Ensuring that all relevant data is consistently available and up-to-date across different sections of the platform would improve patient confidence in the completeness of their medical records.

Clarifying Patient Responsibilities in Health Data Management

There is some ambiguity regarding the patient's role in updating or managing certain types of health information on Helena. It is often unclear which sections of the platform, such as "Medical File" or "Messages," are expected to be updated by the patient versus healthcare providers. Providing more guidance on how patients can actively participate in managing their health data, including clear instructions on which sections they should maintain, would empower users to engage more effectively with the platform.

Enhancing Support for Non-Digital Natives

While Helena's interface is designed to be user-friendly, some patients, especially older adults or those less familiar with digital tools, may still struggle with certain features, such as sharing documents or setting up notifications. Offering more personalized support options, such as step-by-step tutorials, video guides, or even one-on-one assistance, could help address these barriers. Enhancing user support for non-digital natives would make the platform more accessible and inclusive, enabling a broader range of patients to benefit from Helena's features.

Expanding Customization Options to Meet Diverse Patient Needs

Helena's adaptability to different user settings could be further improved by adding more customization options for patients. For example, allowing users to personalize their dashboards, adjust notification preferences, or change the appearance of the interface could provide a more tailored experience. Such customization options would cater to individual preferences, making the platform more engaging and user-friendly. Implementing these enhancements could also help accommodate patients with specific accessibility needs, thereby improving Helena's usability for diverse groups.

FIELD STUDY

HEALTHCARE PROFESSIONAL CASE STUDY : DR BERT VAES

Dr. Bert Vaes, a general practitioner and professor at KU Leuven, utilizes Helena and Helena Pro in his private practice in Hoeilaart and academic work. With significant experience in primary care data management and clinical practice, Dr. Vaes provides valuable insights into the benefits and challenges of implementing digital health solutions like Helena in general practice.

Background and Expertise

As a professor at the Faculty of Medicine, Dr. Vaes supervises the INTEGO network, which consists of over 100 general practices across Flanders that collect morbidity data weekly. This network serves as a monitoring tool and supports population health management initiatives, including the use of technologies for audit and feedback. His collaborative research efforts extend to Sciensano and the universities of Ghent, Antwerp, and Brussels (ULB), where he contributes to projects such as mapping the 'general practitioner dictionary' to SNOMED-CT terminology.

Use of Helena in Clinical Practice

In his private practice, Dr. Vaes and his colleagues actively promote the use of Helena, with the primary goal of optimizing patient records and facilitating the extraction of clinical data for research purposes. Helena's capability to integrate data into the medical record streamlines data management, eliminating manual processes and improving the accuracy of records. Dr. Vaes has noted that Helena Pro is well-integrated with major health information networks like Abrumet, Réseau Santé Wallon, and COZO, allowing healthcare providers access to a comprehensive set of data for each patient.

Integration and Research Benefits

Helena facilitates the automatic integration of incoming medical information, including messages through the eHealth Box, directly into the patient's file. This automation supports efficient communication with hospitals and enhances the sharing of relevant medical information between private practitioners and other healthcare institutions. For research purposes, Helena provides access to extensive data sets that Dr. Vaes and his team can utilize for clinical studies.

Ongoing Feedback and Improvements

Dr. Vaes' team at KU Leuven includes a staff member who serves as a beta tester for Helena, allowing them to quickly identify and communicate potential issues or areas for improvement to HealthConnect. This ongoing feedback loop helps refine Helena's functionalities, such as solving the initial issue of duplicate messages that were experienced with earlier versions of the platform. HealthConnect has been responsive to user suggestions, setting up a formal channel through which users can indicate their priorities for future updates.

Practical Considerations and Future Potential

Dr. Vaes acknowledges the potential for Helena to further improve communication across the healthcare continuum by enabling more structured data exchanges among general practitioners, specialists, and nursing staff. While Helena Pro is more user-friendly and better integrated with electronic medical records compared to previous solutions like Hector, there is still a need for enhanced data sharing capabilities between different care providers to fully realize integrated care. According to Dr. Vaes, achieving efficient structured data exchange will be crucial for Helena's role in supporting coordinated and patient-centered care.

PATIENT CASE STUDY : ANONYMOUS USER

An anonymous patient user of Helena shares their experiences with the platform, highlighting both the benefits and limitations they encountered while managing their health information and interacting with healthcare providers.

Regular Use and Experiences

The user utilizes Helena primarily for medication management and accessing medical documents. They find the app useful for keeping track of medications purchased, both with and without prescriptions, since installing the app. However, they have observed some inconsistencies in medication records, with certain recent purchases not appearing in the system. This gap suggests an issue in the data update process that affects the completeness of medication information.

The user finds the availability of COVID-19 vaccination certificates convenient, with all certificates accessible through the app. However, in the "Vaccinations" section, only COVID-19 vaccines are listed, while other vaccinations, encoded by their doctor, are missing. Additionally, in the "Prescription Records" section, prescriptions from multiple doctors are not consistently reflected, which points to limitations in the platform's data integration capabilities.

Medical Documents and Reimbursement

Helena provides access to various medical documents, such as consultation notes, surgical and radiology protocols, and laboratory reports dating back to 2014. The user finds these features valuable for personal reference and for sharing information with doctors not connected to the platform. Despite these benefits, the user reported that certain sections, such as "Documents and Attendance Certificates," remain empty due to unclear instructions on the types of documents that should be uploaded.

Regarding reimbursement, the user benefits from the Assurmed feature, which allows for digital data transmission to insurers, streamlining the process. This functionality is especially useful for submitting claims for medical expenses and accelerating reimbursement. However, the user notes that some features related to reimbursement are underutilized, suggesting that greater clarity on available services could further improve user engagement.

Integration and Usability Issues

While trying to link their reference pharmacy using INAMI numbers, the user encountered compatibility issues with the pharmacy's software, which hindered their ability to request medication through the platform. This challenge highlights the need for better integration between Helena and external systems, such as pharmacy software, to fully enable medication management features.

The user also identified gaps in data consistency across different sections of the app, such as the "Medical File" and "Messages" sections, which often remain empty. It was unclear to the user who is responsible for populating these sections, indicating that clearer guidelines for users and healthcare providers could help optimize the app's functionality.

Suggested Improvements

Based on their experience, the user provided several recommendations for improving Helena's functionality:

- **Enhancing Data Integration**: Ensure that all pharmacies are encoded to facilitate medication requests and that non-COVID-19 vaccinations are included in the vaccination records.
- **Clarifying Responsibilities**: Clearly define the roles of users and healthcare providers in updating medical files and populating app sections.
- **Expanding the List of Providers**: Increase the number of healthcare professionals who can be linked in the care team to improve accuracy in team encoding.
- **Improving Health Tracking**: Provide more parameters for monitoring health metrics, allowing users to track a wider range of health indicators.
- **Addressing Overlaps**: Eliminate any potential redundancy between sections like "Reports" and "Documents" to streamline navigation.

CONCLUSION

The Helena platform represents a significant advancement in the realm of digital health, with its potential to improve healthcare practices and patient engagement. By providing a secure, user-friendly environment for exchanging medical data and facilitating communication between patients and healthcare providers, Helena addresses some of the critical challenges in modern healthcare. Its integration with established health networks, compliance with data protection standards, and intuitive design make it a valuable tool for both professionals and patients.

However, the analysis also reveals areas where Helena can improve to reach its full potential. There are gaps in data integration, such as incomplete prescription records and vaccination histories, which affect the comprehensiveness of the platform's offerings. The limited functionality in certain areas, like two-way communication and care coordination, indicates that further development is needed to enhance the platform's ability to support integrated care pathways.

User feedback has been a driving force behind the platform's ongoing evolution, and HealthConnect's responsiveness to suggestions underscores a commitment to

continuous improvement. Addressing current gaps in functionality and refining user experience, particularly for elderly users and complex care settings, will be crucial for Helena to maintain its position as a leading digital health solution.

Overall, Helena's combination of secure access, patient empowerment, and professional utility positions it well for future advancements. By continuing to evolve based on user needs and integrating more comprehensive data-sharing capabilities, the platform can play a central role in advancing patient-centred care and optimizing healthcare delivery in Belgium and beyond .

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