

Blockchain supports nurses in the continuity of health and social care

Secretary General of the European Federation of Nurses Associations (EFN), Paul De Raeve explains how blockchain technology supports nurses in Europe where the continuity of health and care is concerned

Blockchain has the potential to modify the way health and social data are traditionally collected, interpreted and connected, shifting from different bits of information held by a single 'owner', to the lifetime history, supporting the efficient and effective continuity of care, by offering a whole and secure way to capture, track and share a citizen's/patient's entire health and social experience.

The innovation of blockchain-inspired technologies has been acknowledged at EU level¹, with the EU investing in blockchain related projects and launching the EU Blockchain Observatory and Forum² to map existing initiatives on blockchain and informing policy debates and inspiring common actions, based on specific use-cases. Parallely, several EU member states have joined the European Blockchain Partnership³, with which the Commission aims to consolidate expertise across borders and address challenges such as disintermediation, trust, security and traceability by design. But where is the end-user in the co-design of policies impacting citizens?

To unlock the potential of blockchain in the health and social care sector, a common, systematic and end-user approach is needed, creating supporting tools for the frontline in their daily practice, ensuring high-quality continuity of care outcomes. However, only co-designed, fit for purpose digital solutions will smooth the deployment of the digitalisation of health and social care⁴, and if not, the investment in innovation will not have a return on investment. In this sense, nurses and SMEs designing blockchain solutions can be joint leaders in reforming health and social ecosystems, leading to a triple win for citizens, industry and the service provider.

The nursing approach to blockchain in health and social care

The right of citizens to timely access, affordable, pre-



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ventive and curative health care of good quality constitutes a crucial societal challenge in the EU. 'Moving care back to the community'⁵ can address this issue, by design, in partnership with frontline nurses and a more holistic approach to value-based health and social care, placing the patient/citizen (prevention) at the centre of the process.

Blockchain can support citizen/patients' empowerment in the management of their own health and social data, by guaranteeing citizens in the chain know how and where their data is being used. So, blockchain has the potential to address key health and societal challenges, such as vaccination hesitancy, by facilitating the keeping of a record of vaccination, with increased control by the citizen/patient of his or her own information. This is just one example where the EU implementation gap can be closed through innovation.

Nurses added-value in blockchain relates to boosting the continuity of care, facilitating the communication between the different actors involved to deliver the

best outcomes for patients and citizens. In particular, nurses are key to improving access and outcomes in a people-centred approach, ensuring the continuity of care across the primary and secondary health and social care sectors.

With co-designed blockchain technology, nurses responsible for accessing, recording and processing health and social care data are more secure in the knowledge that such data will be accurate and consistent, leading to improved patient care pathways and as such, the measurable outcomes. By having a distributed database for health and social care-related information, providers can benefit from improved accessibility, accuracy and safety, resulting in better outcomes for all. Therefore, blockchain becomes a technology supporting the frontline by recording the history of data.

Moreover, through the blockchain network, patients/citizens have access to synchronised databases, giving unprecedented benefits for frontline care provision. The regular and updated exchange of a patient's health and social history will allow nurses to advance the process of discharging patients and data sharing in the continuity of care, the consequence of which is reduced bureaucratic red-tape and an improved quality of nursing interventions, which are crucial in terms of decreasing the unmet needs of patients and citizens'.

A co-designed blockchain can become a solution in the value-based health and social care ecosystems, as the gatekeeper now becomes the patient/citizen, that will directly access his/her continuity of care pathway. In this sense, blockchain needs to show the evidence of its potential to decrease the burden of data collection pending on nurses, allowing them to spend more time in direct patient care.

Blockchain and value-based reimbursements

Value-based reimbursement models, such as capitation (a fixed payment per beneficiary across a defined population) and bundled (pay for an episode of care or condition during a defined period of time) payments should link the continuity of care and blockchain.

Matching personal data on chronic conditions with primary care and public health data simplifies the transition

from fee-for-service payments towards value-based reimbursement models, that prioritise quality outcomes of the continuity of care. The promise of blockchain is redesigning the payments process from one that is system-centric, to one where patients' needs determine the services delivered across a condition or an episode. In this sense, blockchain aims to provide a new supporting infrastructure to address these issues, by creating a common platform to administer payments and adjudicate claims. Reflecting on financial models, including prevention, could make our ecosystems more sustainable, with the support of blockchain technology.

Conclusions

Blockchain can greatly contribute to enabling nurses to deliver on access to care, through the digitalisation of health and social care. To this end, blockchain needs to foster the integrated and the continuity of care policies, supporting nurses to deliver a safe and high-quality level of care. Engaging end-users, local frontline nurses, in co-designing 'fit for purpose' health and social care tools can make the systems more integrated, coordinated and sustainable. ■

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