IHI Call Days | Call 9

Reducing European Medicines Supply Problems through Data Sharing (Federated Data Sharing to Increase Availability of Medicines)

Contact person name: Dave Berry, Lukas Kuerten

Organisation: Centre for Process Innovation

E-mail: dave.berry@uk-cpi.com; Lukas.kuerten@uk-cpi.com

innovative
health
initiative

Challenges and objectives

o **What problem(s) are you trying to solve**

Medicines shortages affect all healthcare systems. Despite best efforts to manage the supply chain, at any given time up to a third of medicines are out of stock. This lack of supply affects patient and prescriber choice and the ability of healthcare providers to meet demand.

o **Which IHI specific objective(s) are you addressing?**

T4 (SO4): Exploit the full potential of digitalisation and data exchange in healthcare. Making better use of opportunities to gather health data and use it in research and care, all while respecting relevant privacy legislation.

o **Which unmet public health need are you addressing?**

Patients do not have a true choice of treatment since not all medicines are available to them.

innovative
health
initiative

Your approach to solve the problem

- **Provide a short description of the proposal**

- We propose the creation of a federated data sharing platform (IT infrastructure, standards to control it, data and the way in which that data is used, predictive models built on the data) to enable Healthcare professionals to predict stock shortages and utilise modelling to determine the best 'at scale' approach to management of medicines supply chain (when driven by patient preference).

- Enable counterfeit medicines in the system to be spotted, reducing harm.

- Enable better patient choice and treatment outcomes. It would enable companies to better plan production, meaning less waste in the system and better management of planetary boundaries. i.e. creation of a win-win-win scenario.

innovative
health
initiative

Is your project suitable for IHI?

- **IHI aims to fund large-scale projects focusing on health innovation. Explain why a public private collaboration is essential to develop your proposal**

  Supply shortages affect all companies and healthcare systems alike. No one is immune to lack of stock and the right thing being in the wrong place at the right time. However, none of the stakeholders will be able to solve the problem on their own, since it hinges on information along the entire supply chain being available.

- **Where do you see the contribution of industry in your proposal? Why do you require different health industry sectors (e.g. pharma, vaccines, biotech, medical devices, in vitro diagnostics, radiotherapy, medical imaging health ICT)?**

  Enabling supply chain timings to be shared for common excipients and medicines such that the supply chain can be better managed and sustainability goals can be met. Enabling early reporting of counterfeit medicines in the supply chain and greater robustness against them.

  Because this is a multi-factorial problem and all aspects of the health delivery process are impacted by out of stock medicines.

innovative
health
initiative

Outcomes and Impact

- **Outputs**

➢ Trusted repository of supply chain information for medicines. Some information accessible by subscription only to create a sustainable business model.

➢ Reduction of stock shortages in European medicines supply, resulting in better patient care, increased efficiency and improved sustainability.

- **Short and medium term results**

➢ Better understanding of European medicines supply chains and control against counterfeit medicines.

➢ Enabling better patient choice.

➢ Improved business efficiency and sustainability due to predictive modelling.

- **Long-term outcomes**

➢ Platform for trusted information sharing on European supply chains. This could be leveraged for sustainability improvements, healthcare choice monitoring and prediction of future medicines development.

innovative
health
initiative

Expertise and resources

- **We have:**
  - ➤ Strong links with numerous small and large pharma companies, universities and technology providers
  - ➤ Experience with several projects similar in size and scope to this one:
    - ➤ technical experience with data sharing infrastructures, enterprise architectures and predictive modelling
    - ➤ managing large consortia in the IP-sensitive pharma space

  - ➤ IT infrastructure

- **We are looking for:**
  - ➤ Stakeholders from along the value chain to share data
  - ➤ Standards, IT knowledge, European healthcare system knowledge.
  - ➤ Cross-European links.

innovative health initiative

Additional information

- CPI is a non-for profit research and technology organisation with extensive experience in large collaborative research projects

innovative
health
initiative