

Title

Sustainable Delivery: Patient journey and environmental hotspot mapping of baby delivery

Problem statement

Every year around 130.00 babies are born in a hospital in the Netherlands. There is little known about the environmental impact of the healthcare pathway from pregnancy to delivery, and even less about how to reduce this. For this reason, the Leiden University (CML), LUMC (Gynaecology) and TU Delft (Industrial Design Engineering) have collaboratively initiated a research project to assess the environmental impacts of the entire care chain of the pregnancy and delivery process and propose solutions for a more sustainable healthcare trajectory.

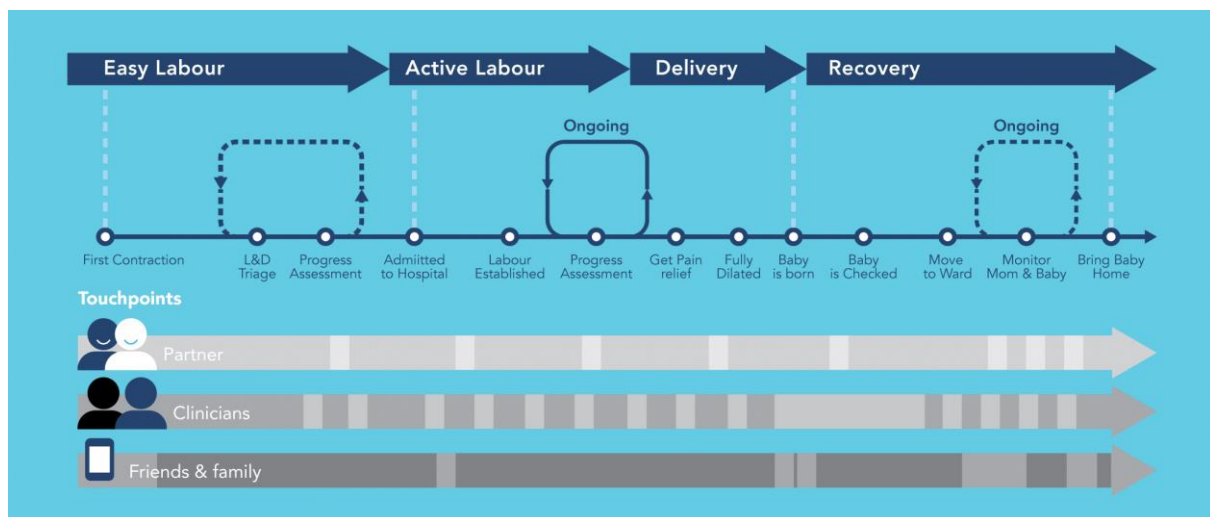


Still from the video 'My first little footprint' by Maria Koijck. Baby Fé has a footprint of 3 garbage bags following delivery.

Research question(s)

How can the environmental impact of the healthcare trajectory from pregnancy till baby delivery be reduced?

- How does the baby delivery healthcare trajectory look like in practice? Describe the pathway by means of a Patient Journey Map.
- Which medical consumables and medical devices are used along this Patient Journey Map? Map out the use of medical resources during the healthcare trajectory.
- What are the environmental hotspots along this healthcare trajectory? Identify environmental hotspots based on the Patient Journey Map and the mapping of the use of resources.
- What are potential interventions to reduce the environmental impact?



Patient Journey Map template

Expected type of work

Together with a scientific team existing of medical experts of LUMC, environmental experts of CML and design for sustainability experts from TU Delft you are expected to develop a 'patient journey map' from pregnancy to baby delivery and to further detail this by mapping the medical resources used along this healthcare trajectory. Next environmental hotspots will be identified and potential environmental and circular interventions will be proposed. This will be done by a combination of qualitative and quantitative tools and methods.

References

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- Simonse, L. Albayrak, A. and S. Starre (2019) Patient journey method for integrated service design. *Design for Health*, 3 (1), 82-97.
- McCarthy, S., Paidi O'Raghallaigh, Simon Woodworth, Yoke Lin Lim, Louise C. Kenny & Frédéric Adam (2016) An integrated patient journey mapping tool for embedding quality in healthcare service reform, *Journal of Decision Systems*, 25:1, 354-368
- My First little footprint by Maria Kojick, <https://youtu.be/KLEW0d0T55U>

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