

Researchers developing a digital maternity package

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Every Finnish expectant mother can choose to receive a free of charge maternity package containing baby clothes and other useful items. VTT Technical Research Centre of Finland is currently developing a digital maternity package with the purpose of gathering reliable health information provided by various smart devices, electronic services, and guides into a single user interface. In the future, pregnant women and the parents of children can monitor their own health and that of their children more easily and comprehensively than today, using their smartphones, for example. The concept under development is probably unique in the world.

Digital health and wellbeing applications are part of the everyday life of many adults, but there is currently only a scant offering of services targeted at small children and families. One purpose of the digital maternity package planned by VTT is to reduce concerns related to the wellbeing of mothers and babies and make the everyday life of families easier, while examining whether some issues related to pregnancy or the development of the baby could be monitored at home or handled via digital services, thus making maternity and child health clinics more efficient.

As part of the project, VTT is developing both new smart products and digital services, and charting existing applications that would fit the concept of a digital maternity package. A smart soother and a bed sensor measuring a baby's <u>sleep pattern</u>, for example, could be part of a digital maternity package in the future. Sensors can be integrated into the smart



soother, providing information on, for example, the temperature, the baby's movements or suction power. The data is transferred from the soother and the bed sensor to a display on a tablet, smartphone or computer, compiling information on, for example, the mother's diet and the progress of the pregnancy, the child's growth development and sleep pattern, or perhaps a chat service with a nurse. The digital maternity package also helps increase awareness of the existing digital applications and thus get the families to use them.

Ideas for digital services for families with children have been harvested by interviewing healthcare professionals and parents of small children.

"Families with children have demand for reliable, individual and easily available health information. The idea is that the digital maternity package would act as a long-time storage for data related to the pregnancy and infancy, allowing it to be utilised by public or private healthcare, too, should you so wish. The best end result is achieved if we can involve a comprehensive network of healthcare operators," says Olli Kuusisto, Senior Scientist at VTT.

VTT is currently seeking partners for the development and commercialisation of the digital maternity package. The product could be on the market in the next couple of years.

Digital services are transforming society

The digital maternity package is an example of how digital services and the Internet of Things can become an increasingly visible part of the everyday life of consumers and society at large.

"Digital services such as the maternity package under development can help make healthcare more efficient and increase its impact, while improving and expanding the quality of the services offered to people,"



Kuusisto remarks.

Provided by VTT Technical Research Centre of Finland

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