

INSULIN: Information on endocrine diSrUptors and the deveLopment of gestatioNal diabetes mellitus - a mobile app



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■ Consortium:

The **INSULIN consortium** comprises researchers from **Antwerp University (Belgium)**, **Universitat Rovira i Virgili (Spain)**, **Hospital Universitari Joan XXIII (Spain)** and **AquaTT (Ireland)**. The consortium has a complementary expertise in the fields of **analytical chemistry**, **risk assessment**, **knowledge transfer** and **communication**.

■ Background:

- The incidence of **Gestational Diabetes Mellitus (GDM)** has increased in the past 20 years, and it is now diagnosed in up to **18% of all pregnancies**.
- GDM is associated with **dramatic health adverse consequences**, including preeclampsia, birth complications, and cesarean delivery, as well as long-term risk of type 2 diabetes mellitus, obesity, and cardiovascular disease for both the mother and child.
- The **role of Endocrine Disruptors (ED)** on the development of **GDM** is a **topic of recent concern**, but with **inconclusive results yet**.
- The use of mobile phones and other wireless technology such as texting messaging, **apps**, and video messaging to support the achievement of health objectives, is a **burgeoning field of public health**.

■ Goal:

To develop a mobile application (app) to prevent the exposure to endocrine disruptors (EDs) during pregnancy and the potential development of gestational diabetes mellitus (GDM)

■ Expected impact:

- ✓ Launching a **mobile app** to provide information to prevent EDs exposure and GDM, specially targeting pregnant women, gynecologists and mid-wives.
- ✓ Mitigating the **negative health outcomes** related to the exposure to EDs and the development of GDM
- ✓ Significant **monetary saving** for the **health system**. In fact, total mean health care costs for among women diagnosed with GDM are 25.1% higher than among women with normal glucose tolerance. The cost of inpatient visits is 44% higher and neonatal intensive care unit use is 49% [1]. In terms of absolute monetary values, the economic burden per case of GDM averaged 5,200€ [2].

[1] Kolu P, et al. BMC Pregnan. Child. 2012 Jul 24;12:71. doi: 10.1186/1471-2393-12-71.
[2] Dall TM, et al. Diabetes Care 2014 Dec;37(12):3172-9. doi: 10.2337/dc14-1036.



Fig. 1. INSULIN knowledge transfer



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