## Experience Counts: Unveiling Patients' Willingness to Pay for Remote Monitoring and Patient Self-Measurement

Authors: M.L. Gerits, S. Bielen, D. Lanssens, J. Luyten, W. Gyselaers, PREMOM II consortium



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Pregnancy Remote Monitoring for women at risk of gestational hypertensive disorders

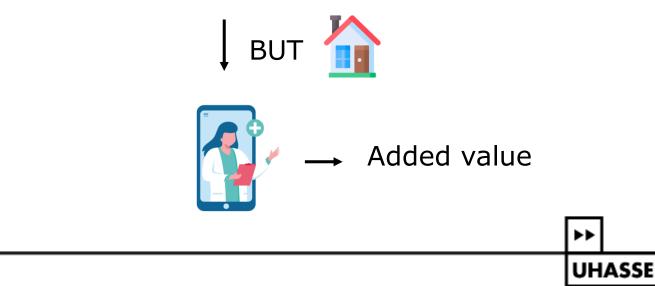
UHASSELT INNOVILLEDGE IN ACTION Pregnancy Remote Monitoring for women at risk of gestational hypertensive disorders

→ High blood pressure during pregnancy

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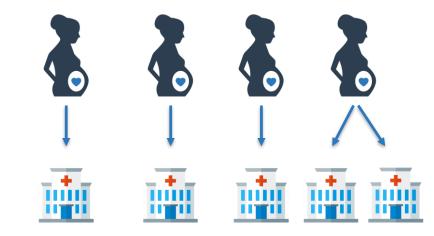
→ More intensive pregnancy follow-up



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Multi-center, multi-arm randomized controlled trial

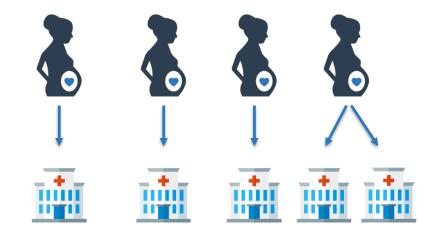
### $\rightarrow$ Multi-center:





Multi-center, multi-arm randomized controlled trial

→ Multi-center:





- Control group
- Patient self-measurement group
- Remote monitoring group

**>>**|

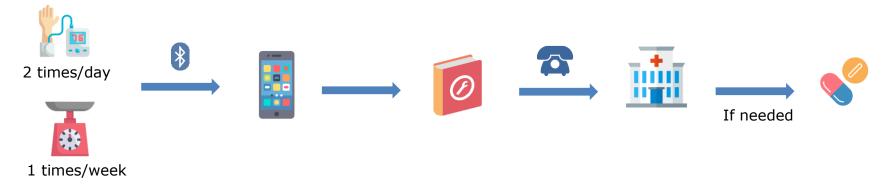
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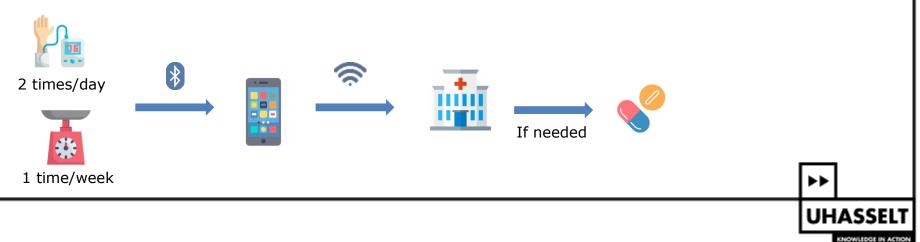
### Control group

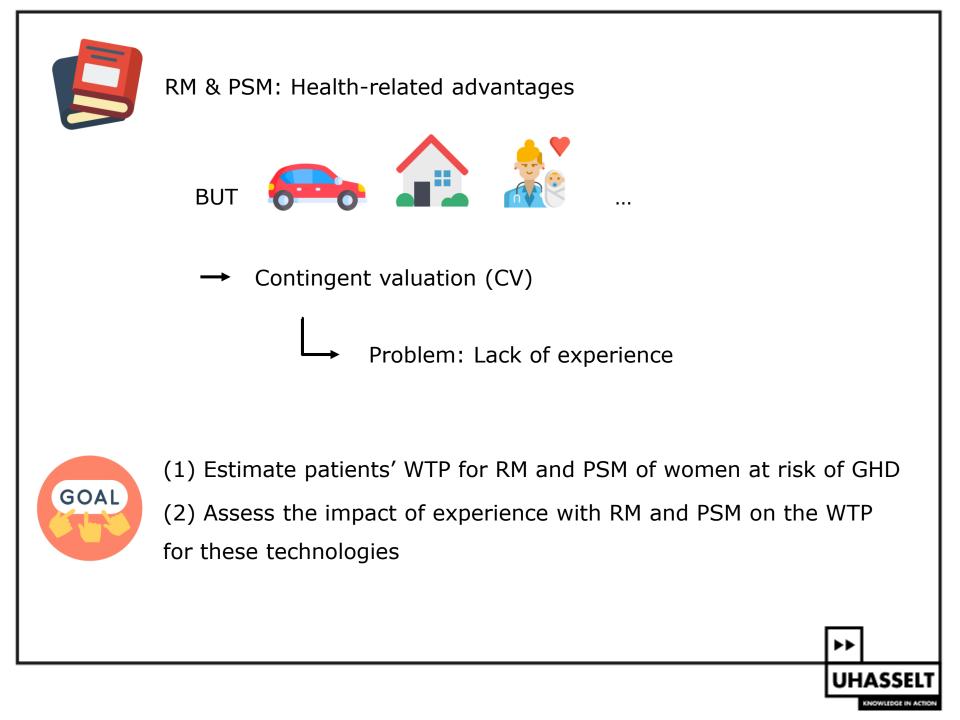


### Patient self-measurement (PSM) group



#### Remote monitoring (RM) group





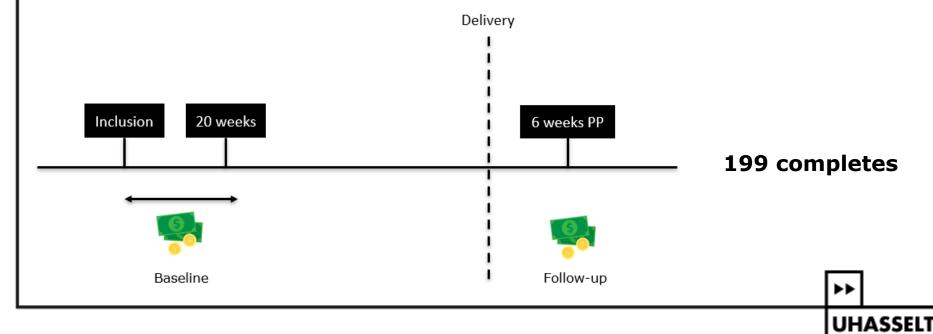
## Study design

### Payment card + open-ended follow-up

0	5	10	15	20	30	40	50	60	80
100	120	150	200	250	300	400	500	600	> 600

0	10	20	30	40	60	80	100	150	200
250	300	400	500	600	700	900	1100	1300	> 1300





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Estimate patients' WTP for RM and PSM of women at risk of GHD

	Baseline	Follow-up
WTP RM		
Whole sample	117.99	122.19
RM group	111.48	137.68
PSM group	121.92	122.20
Control group	123.09	98.94
WTP PSM		
Whole sample	76.92	83.37
RM group	57.58	78.41
PSM group	91.84	86.03
Control group	88.26	87.65

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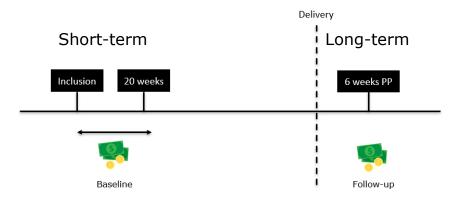
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Different types of experience:

Short-term vs. Long-term experience



- Exact vs. partial vs. no experience
  - Exact experience: RM group with RM, PSM group with PSM
  - Partial experience: RM group with PSM, PSM group with RM
  - No experience: Control group

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Analysis:

 $\rightarrow$  Separately for each measurement point

# $Y_i = \alpha + \beta_1 R M_i + \beta_2 P S M_i + \delta X_i + \varepsilon_i$

- $\rightarrow$  Two-part models
  - 1. Logistic regression
  - 2. Generalized linear model



### Results:

### Impact experience on WTP RM

		Short-term	Long-term
	_	1	1
		WTP RN	Л
		Baseline	Follow-up
Exact experience 🗧	RM group	-10.170	62.621***
		(20.393)	(22.892)
Partial experience 🔶	PSM group	-12.083	38.278
		(21.800)	(23.316)
	Observations	199	199

 $\rightarrow$  Exact (RM group) or partial (PSM group) experience with RM does not significantly impact the corresponding WTP after a **short-term exposure**, compared to not experiencing any intervention.

→ The effect *is* significant after a **long-term exposure**. Compared to women in the control group, WTP is  $\in$  63 higher in case of **exact experience**. For a partial experience with RM this effect is also positive ( $\in$  38), but marginally insignificant (p-value: 0.10).

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### Results:

### Impact experience on WTP PSM

		Short-term	Long-term
		1	1
		WTP P	SM
		Baseline	Follow-up
Partial experience ←	RM group	-26.269*	-8.822
·		(14.407)	(68.967)
Exact experience 🔶	PSM group	-5.854	-13.243
		(16.050)	(143.188)
	Observations	199	199

→ Women with a **short-term partial experience** with PSM exhibited a  $\in$  26 lower WTP for PSM compared to women in the control group.

 $\rightarrow$  No significant impact of either long-term partial experience or (long- or short-term) exact experience with PSM on the corresponding WTP

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Flemish pregnant women at risk of GHD had a reasonably high WTP to use RM or PSM during their pregnancy  $\rightarrow$  RM:  $\in$ 120, PSM:  $\in$ 80



Experience can have a positive impact on WTP

- $\rightarrow$  Depends on...
  - Length of exposure
  - Type of technology

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