

# Impact of 10 years multimodal country-wide campaigns to promote hand hygiene in Belgian hospitals

« YOU ARE IN GOOD HANDS »

# Background

## Healthcare-Associated Infections (HCAI)

Worldwide :

1.4 million people affected

→ ↑ hospital stay

→ ↑ hospital costs and excess mortality

→ ↑ long term invalidity

In Belgium\*:

- 7.2% of hospitalised patients
- 2500 – 3000 deaths per year
- nearly 400 million euros per year
- 46.9% compliance in 2004 before campaign

## Intervention: Nation-wide Hand hygiene campaign

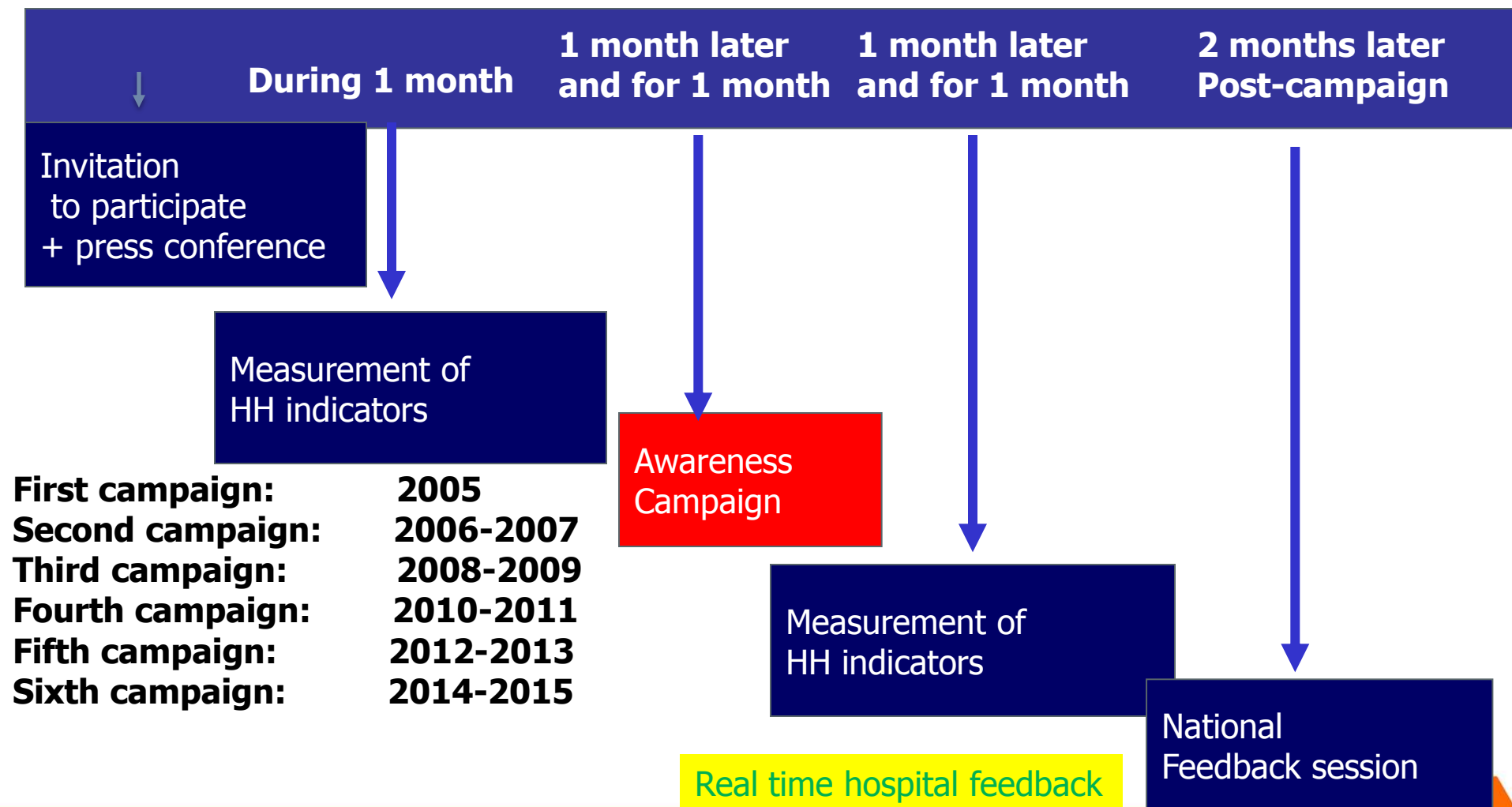
- Organised by the national hand hygiene working group of the federal platform of hospital hygiene and sponsored by the ministry of public health.
- **Objective:** Raising awareness on good hand hygiene (HH) practices and promoting use of alcohol rubs
- **Target population:**
  - **HCW** having contact with patients hospitalised in acute, chronic and psychiatric hospitals.
  - **Patients.**

# Methodology

1. Pre-campaign
2. **Awareness campaign** with standardised material to improve HH compliance
3. **Measuring** impact of the campaign (Pre - Post campaign)
  - HH compliance (soap and/or alcohol / HH opportunities)
  - *Alcohol rub consumption (litres alcohol rub / 10000 patient days)*
  - *Respect of basic hygiene conditions (optional, from the third campaign)*

*Conforming with hand hygiene recommendations of the Superior Health Council and WHO.*

# Planning



# Campaign messages

Campaign	Messages
First	Hand hygiene, just do it ... and with alcohol rubs
Second	Hand hygiene, do it correctly
Third	Hand Hygiene, without jewels and with appropriate use of gloves
Fourth	Doctor, don't forget, it works and you are a role model
Fifth	Hand hygiene, do it certainly before any contact with the patient
Sixth	Hand hygiene, together with the patient

# Awareness campaign: multi modal



- Reminders (posters)
- Education of HCW
  - standardised powerpoint presentation
  - Interactive quiz
- Distribution of gadgets for HCW or patients
- Promotion of hand rub (posters, black light)
- Feedback of measurement results before campaign
- Clip video
- Implication of patients (leaflets, gadget, website)



- > Infections
- > Hand hygiene

- > What can I do ?
- > The hospitals

- > For kids
- > Cough hygiene

[HOMEPAGE](#) [CONTACT US](#)

**Discover your role in infection prevention !**

[What can I do ?](#)



**Hand hygiene: talk about it to your healthcare provider.  
Let's avoid infections together !**



# Measurement of HH compliance



- Direct (overt or covert) observation
- By trained observers (IC practitioner or reference nurses for hospital hygiene)
- Standardised observation grid (WHO proofed)/mobile tablets
- Observation period of 30 minutes, 24/24, 7/7
- Minimum 150 opportunities for HH per unit
- At least intensive care units
- Same methodology before and after campaign
- Online web tool for data entry and real time feedback

# RESULTS

# Participation

± 79%



	Acute hospitals	Chronic hospitals	Psychiatric hospitals	All hospitals
<b>Campaign 2005</b> n/N (%)	112/116 (97 %)	19/31 (67%)	NA	131/147 (89%)
<b>Campaign 2006</b> n/N (%)	113/116 (97 %)	22/30 (73%)	43/68 (63%)	178/214 (83%)
<b>Campaign 2009</b> n/N (%)	110/113 (97 %)	20/28 (71%)	46/67 (69%)	175/208 (84%)
<b>Campaign 2011</b> n/N (%)	98/107 (92 %)	16/24 (67%)	41/67 (61%)	156/198 (79%)
<b>Campaign 2013</b> n/N (%)	118/120 (98 %)	11/24 (45%)	26/67 (39%)	155/211 (73%)
<b>Campaign 2015</b> n/N (%)	123/124 (99%)	11/24(45%)	18/44 (41%)	152/192 (79%)

## Choisir période (Campagne ou Hors-campagne) :

Campagne

## Choisir une période :

Post Campagne 2014

## Choisir données pour tout l'hôpital, toutes les unités, ou pour une unité spécifique :

Unité

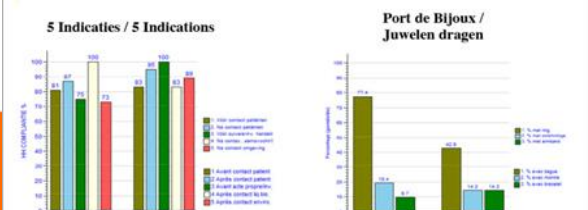
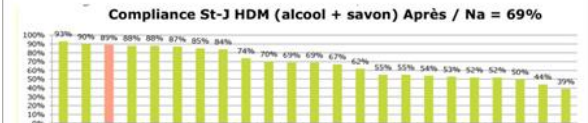
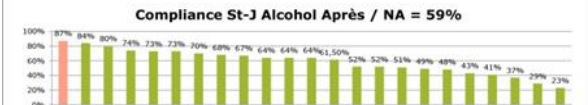
## Choisir unité :

441

## Type du fichier :

RTF

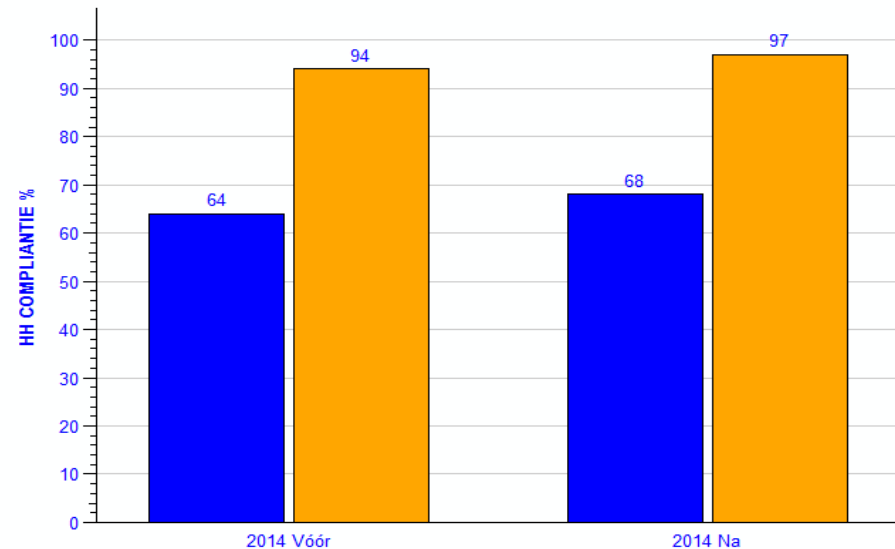
Génère



## Globale percentage van handhygiënecompliance

Periode	Aantal geobserveerde eenheden (n)	Aantal geobserveerde opportuniteiten (n)	Totale observatieduur (Uren)	Observatieduur/ 10 opp. (Minuten)
2014 Vóór	2	639	22.1	21
2014 Na	2	190	3.0	9

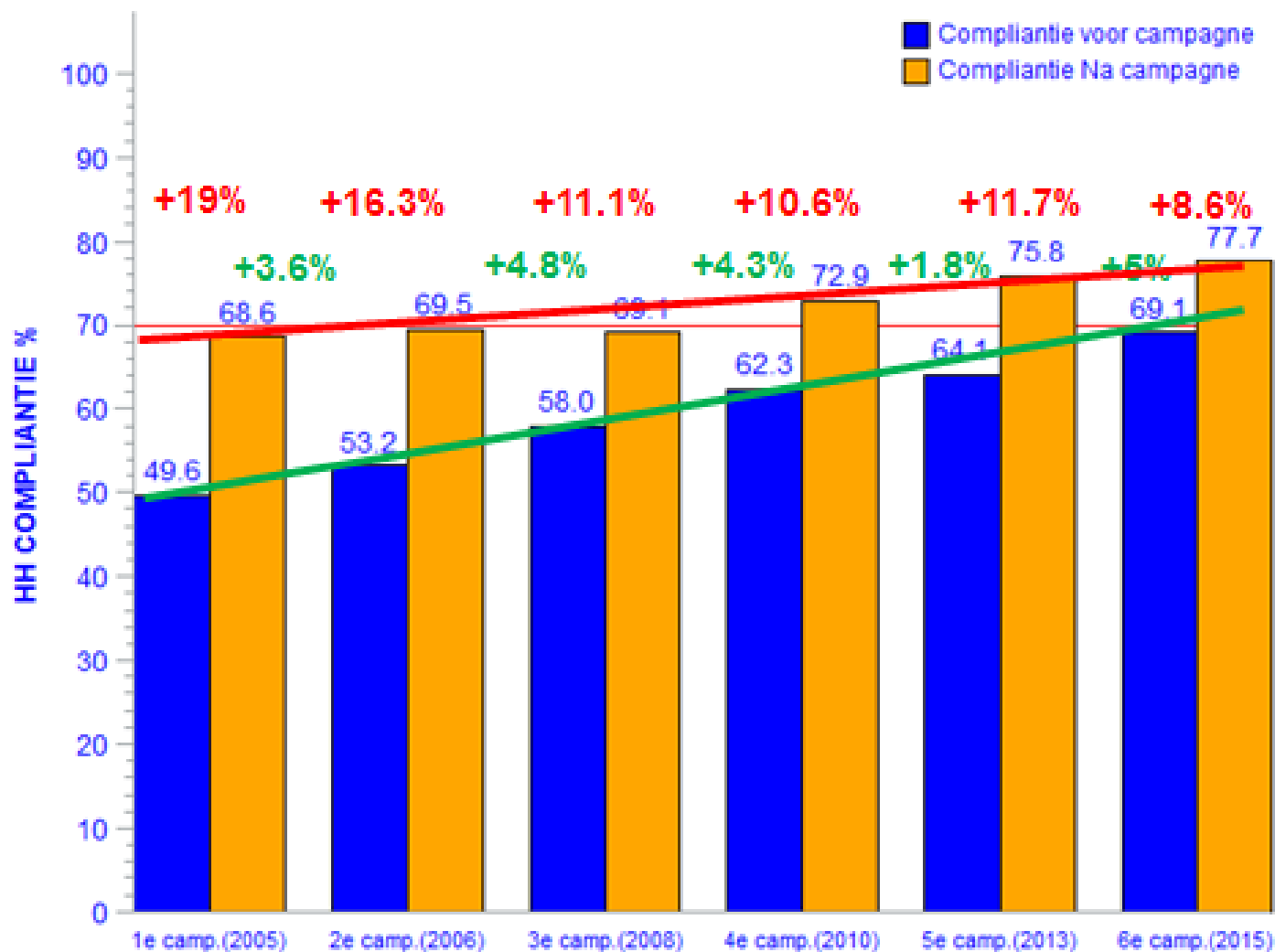
Periode	Aantal geobserveerde opportuniteiten (n)	Handhygiëne Alcohol + zeep (n)	Globale percentage van compliance (%)	Handhygiëne Alcohol (n)	Percentage alcohol/alcohol+zeep (%)
2014 Vóór	639	408	64	383	94
2014 Na	190	130	68	126	97



# Number of observed opportunities

Campaigns	Number of opportunities	
	Before campaign	After campaign
2004-2005	73 663	72 705
2006-2007	88 480	84 883
2008-2009	107 653	109 826
2010-2011	89 583	79369
2012-2013	123 204	115 599
2014-2015	117 411	104 186

# HH compliance before vs after campaign



# Campaigns were successful

- High participation rate
- Increase of HH compliance at short and long term
- Alcohol rub is widely used
- Physician compliance increased during IVth campaign

## To be improved:

- HH compliance before contact (70% min to be reached)
- Patient empowerment
- HH improvement has to become an institutional project

# Limitations of methodology

1. Variability of measurements between observers

→ tackled with training:

- by national workshop for observers
- by standardised powerpoint presentation
- by online quiz

2. Observation bias (« Hawthorne effect ») difficult to eliminate

3. Rates of HCAs were not evaluated



## The Hand Hygiene working group



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Thank you.



NL:

<https://www.youtube.com/watch?v=EpO5kfU0EdU>

FR:

<https://www.youtube.com/watch?v=6r63HXUMn1g>