

# Implementation study of medication reviews in Swiss nursing homes (MR-NH)

A pilot study

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# Declaration of interest:

I herewith declare that I have:

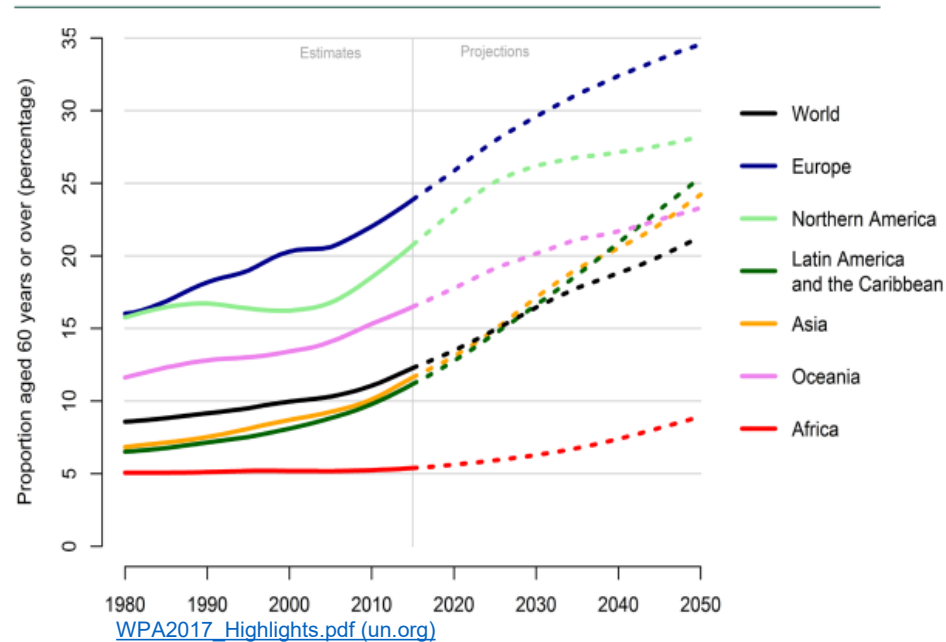
- no conflict of interests



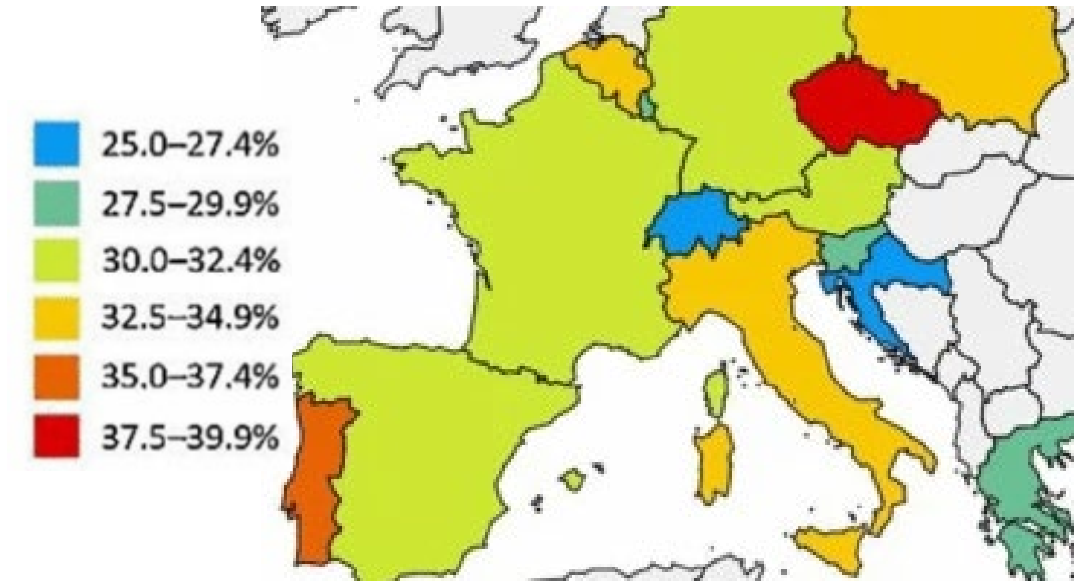
# Background

- Population ageing

Percentage of population aged 60 years or over by region, from 1980 to 2050



- Polypharmacy



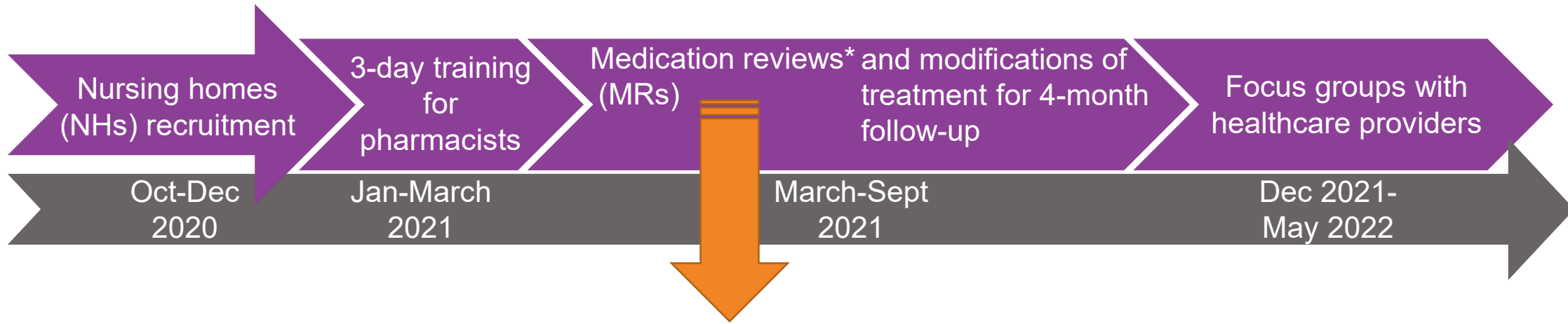
Pazan, F., Wehling, M. *Eur Geriatr Med* 12, 443–452 (2021)

Potentially inappropriate medications (PIM)  
Drug Related Problems (DRPs)

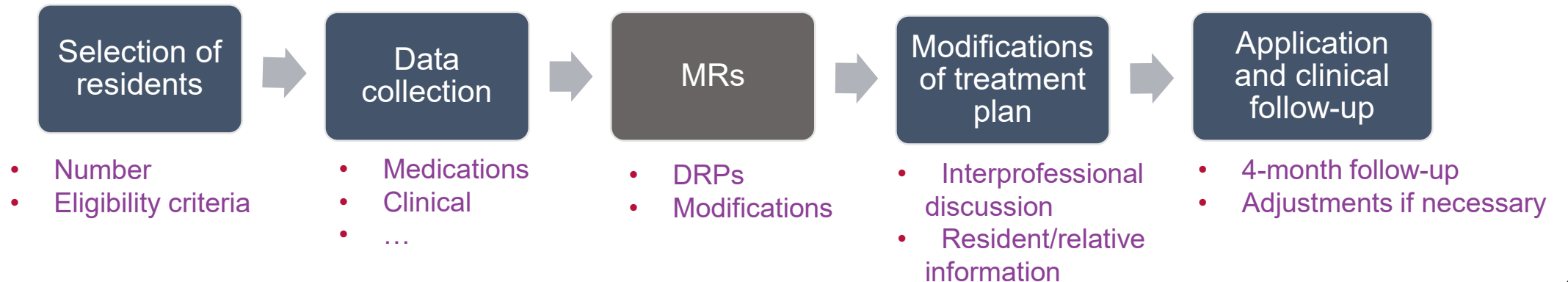




# Medication reviews in nursing homes (MR-NH)



## NH-specific process



\*Adapted from: "Position Paper on the PCNE definition of Medication Review 2016"



# Objectives

To evaluate the **implementation** of MRs, **factors** and **strategies**

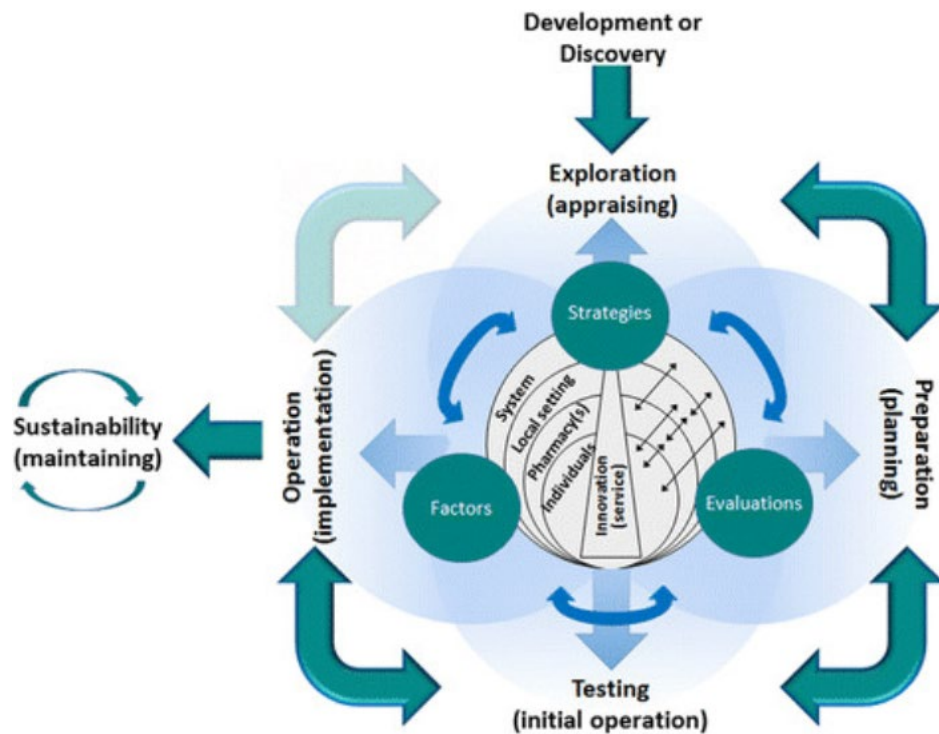
To evaluate the **impact** of MRs on the **DRPs** considered as **resolved** at follow-up



# Method

<sup>1</sup> Moullin JC, et al. RSAP, 12(3):515-22, 2016  
<sup>2</sup> Holtrop, J et al. Journal of Clinical and Translational Science, 5(1), E126, 2021  
<sup>3</sup> Livet, M. et al.. RSAP, 17(9), 1623–1630, 2021  
<sup>4</sup> Department of Health, NCEC Implementation Guide and Toolkit, 2018  
<sup>5</sup> Dr. F. Zúñiga, IntercareNurse-led model of care in Swiss NHs, University Basel, 2021  
<sup>6</sup> Adapted from Sakharkar et al., RSAP, 11(4), 487–498, 2015

- Observational study with a mixed method approach
- FISpH<sup>1</sup> and RE-AIM<sup>2</sup> frameworks



Framework for the Implementation of Services in Pharmacy (FISpH)



RE-AIM





# Implementation & impact outcomes

	Outcome <sup>7</sup>	Description
Implementation	Adoption	% and representativeness of participating nursing homes (NHs)
	Fidelity	# NHs in the schedule /with defined specific process /that reached targeted # of MRs
	Reach	# MRs
	Acceptability	% of healthcare providers (HCPs) recommending the process
	Feasibility	Availability of resources (time, financial, staff, skills) - pharmacists
	Maintenance	# NHs that renewed the new service at the end of the project
Impact	Primary	% of DRPs considered as resolved
	Secondary	<ul style="list-style-type: none"> <li>• Type of DRPs</li> <li>• Average # DRPs per resident</li> <li>• Rate of modifications proposed, validated, implemented and maintained</li> </ul>

<sup>7</sup> Proctor E, et al. Adm Policy Ment Health, 38(2):65-76, 2011



# Implementation strategies

Implementation strategies <sup>8</sup>	Assessment measures
1) 3-day training (pharmacists)	Perception
2) Remuneration	
3) Audit and feedback	
4) Definition of NH-specific process	
5) Group Chat & notifications tool (pharmacists)	
6) Clinical support	# requests

<sup>8</sup> Powell, B. J. et al. MRR, 69(2), 123–157, 2012








# Results - Implementation

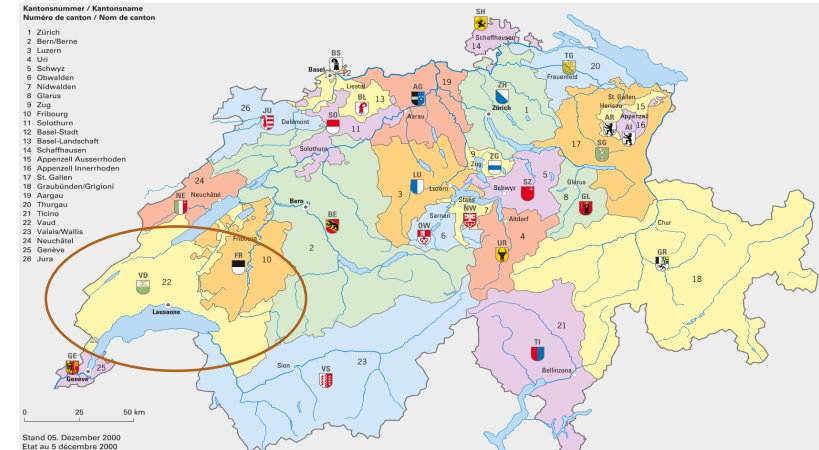
- Adoption

10 voluntary NHs :

- 19  18  12 
- 75 residents to select

- Fidelity

- 6 NHs behind schedule
- 7 NHs defined the NH-specific process
- 7 NHs reach the targeted # of MRs

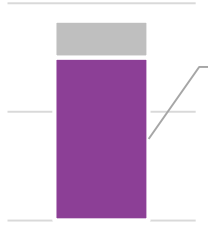


[Les 26 cantons et chefs-lieux de la Suisse \(Cantons\) | Carte | Office fédéral de la statistique \(admin.ch\)](#)  
(consulted 06-24-2022)



# Results - Implementation

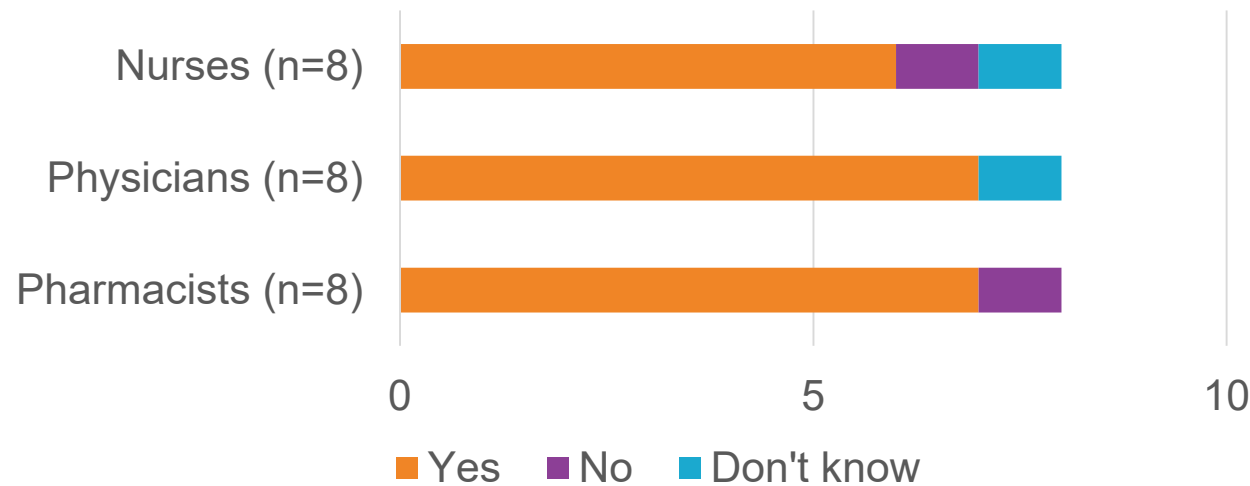
- Reach



55/75 MRs

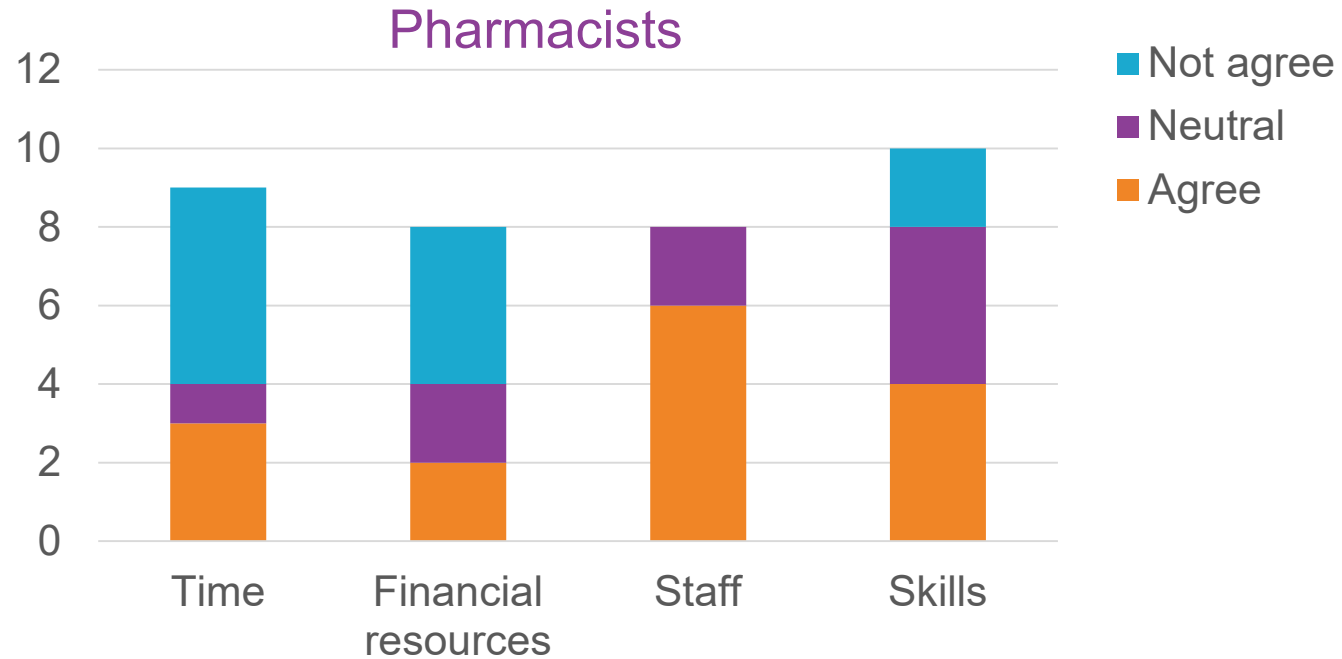
→ Process interrupted in 3 NHs (11, 6 and 3 MRs)

- Acceptability (% of HCPs recommending the process)



# Results - Implementation

- Feasibility



- Maintenance

The 7 NHs that succeeded intend to continue the project in 2022

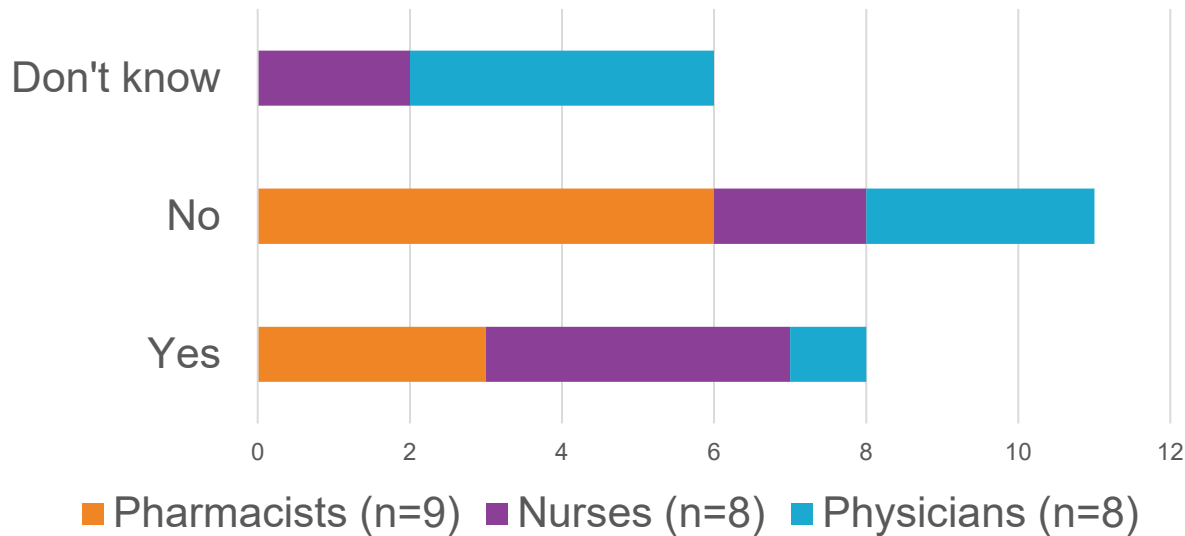




# Results – Implementation strategies

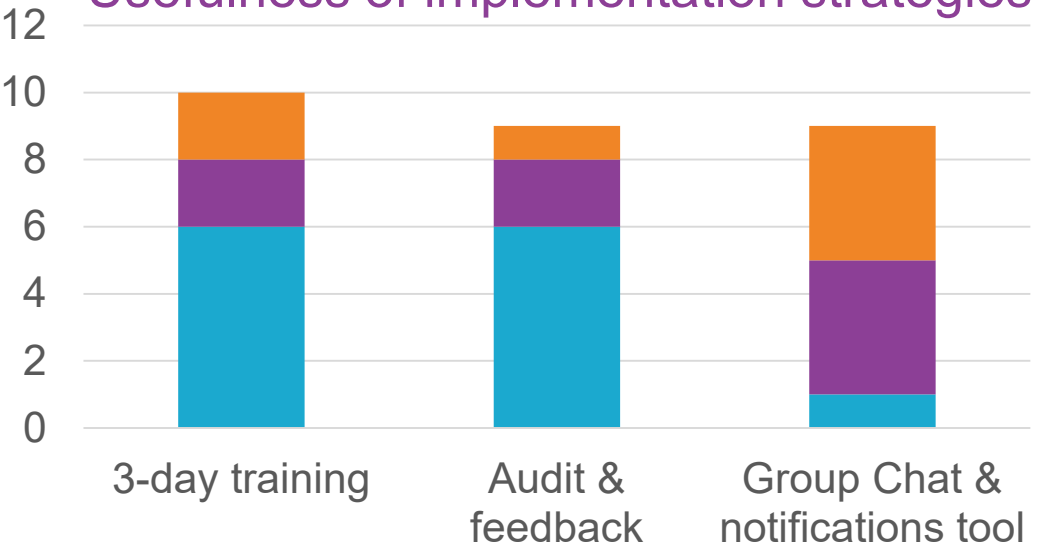
3 NHs requested clinical support

## Adequacy of remuneration



■ Not agree 12  
■ Neutral 10  
■ Agree 8

## Usefulness of implementation strategies



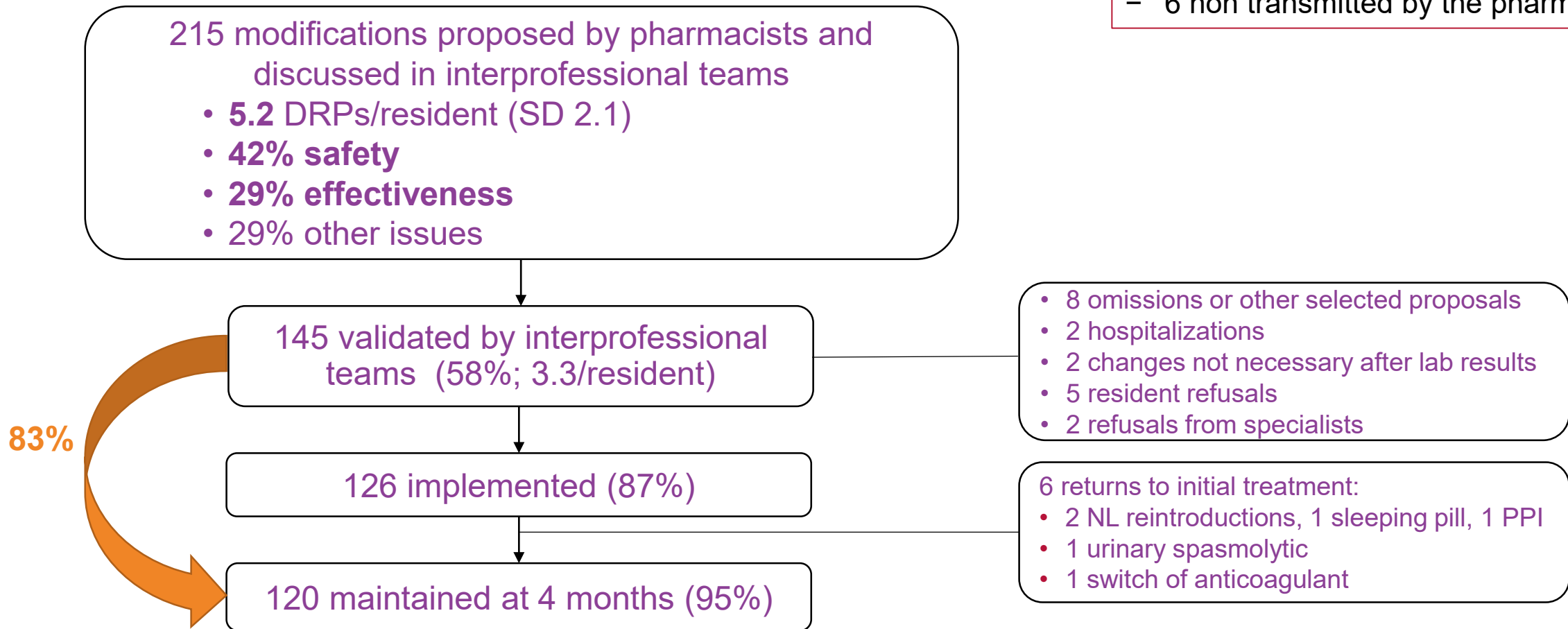
Most pharmacists found it very useful to define specific process, excepted for patient/relative involvement.



# Results – Impact

Data availability: 43/55 residents

- 2 refusals
- 4 deaths before 4-month follow-up
- 6 non transmitted by the pharmacist



# Conclusion

- MR performed by community pharmacists in NHs are **feasible, accepted and recommended** by HCPs.
- Our results supported the decision of the regional health department to extend the service to more NHs in 2022.
- Improvements for large-scale implementation:
  - Added remuneration for physicians
  - Adjustment of the training content
  - Strengthened facilitation and clinical support
  - Unique information and communication system





# Thank you!

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