

Enquête de prévalence 2024 : infections associées aux soins (IAS) et utilisation d'antibiotiques

Centre de coordination PPS

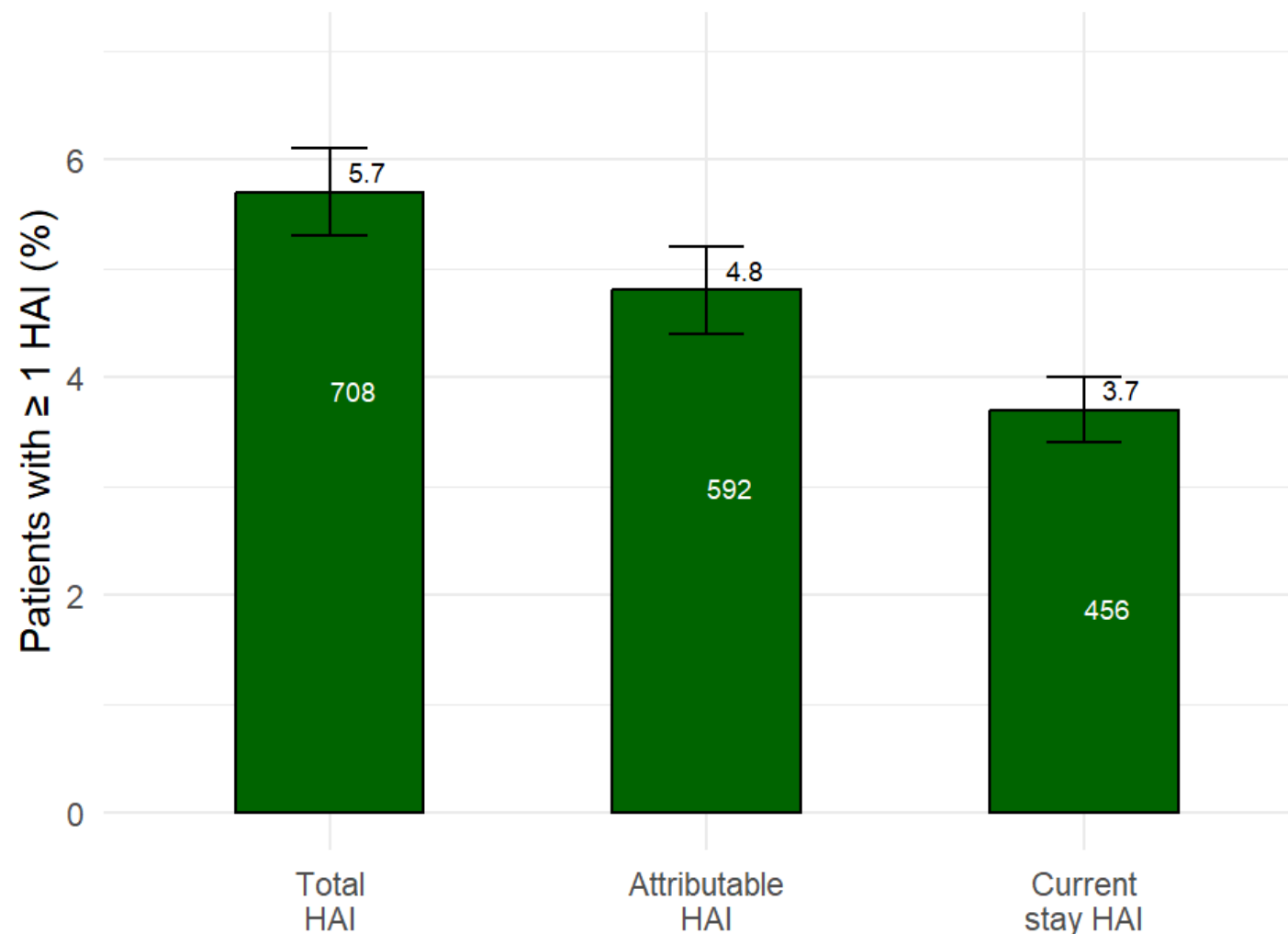
Ash Sonpar

8 novembre 2024

Hôpitaux participant à l'enquête de prévalence ponctuelle

	Hospitals, N	Patients, N
Total	103	12,414
Large hospitals (>650 beds)	6	3,974
Medium hospitals (200-650 beds)	19	3,719
Small hospitals (<200 beds)	78	4,721
University hospitals	4	3,207
Primary hospitals	43	3,088
Secondary hospitals	37	4,130
Tertiary hospitals	10	4,432
Specialized hospitals	11	587
Pediatric hospitals	2	177
Public hospitals	55	9,520
Private non-for-profit hospitals	24	1,560
Private for-profit hospitals	22	1,215

Prévalence des IAS en 2024

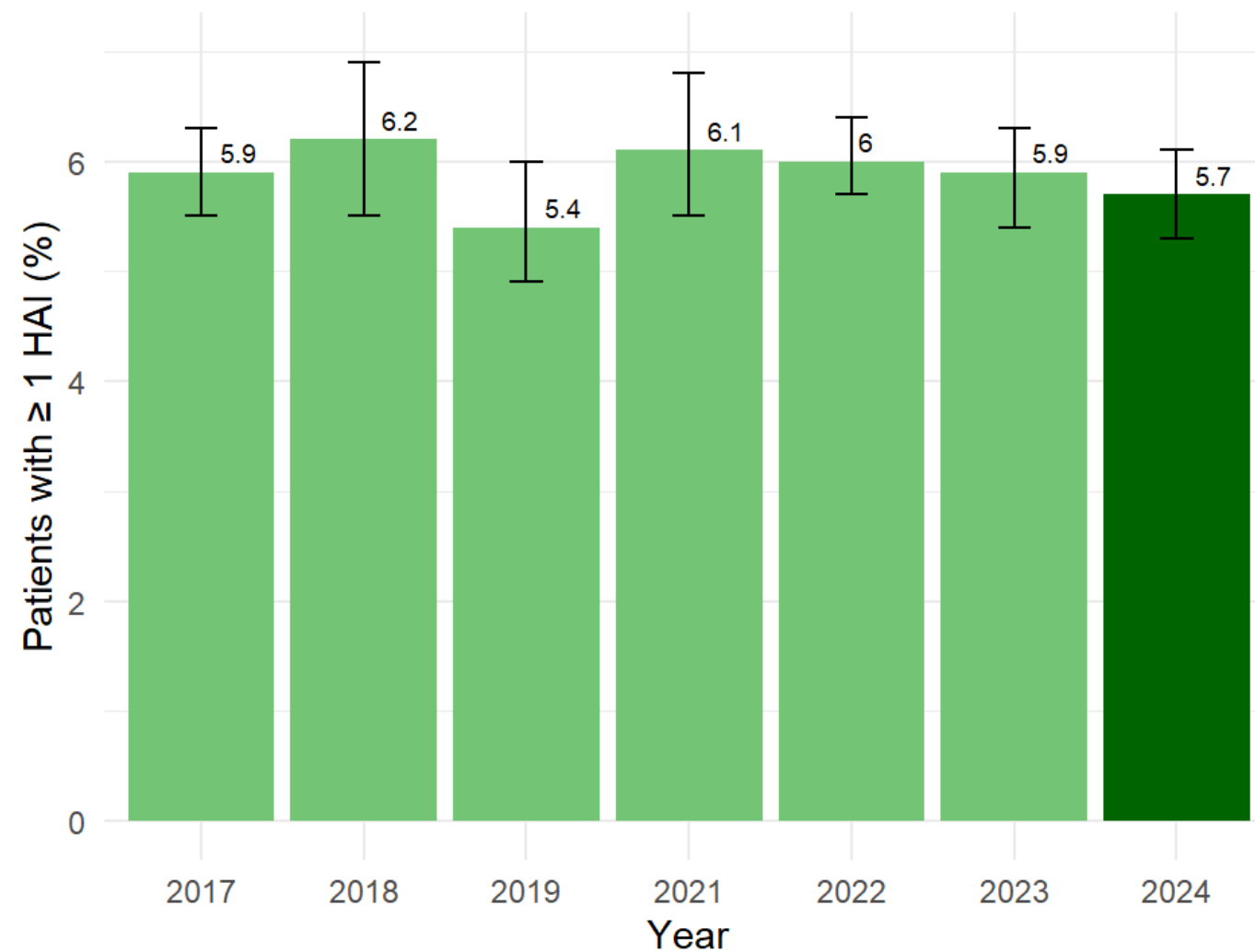


ECDC PPS 2022-2023 :

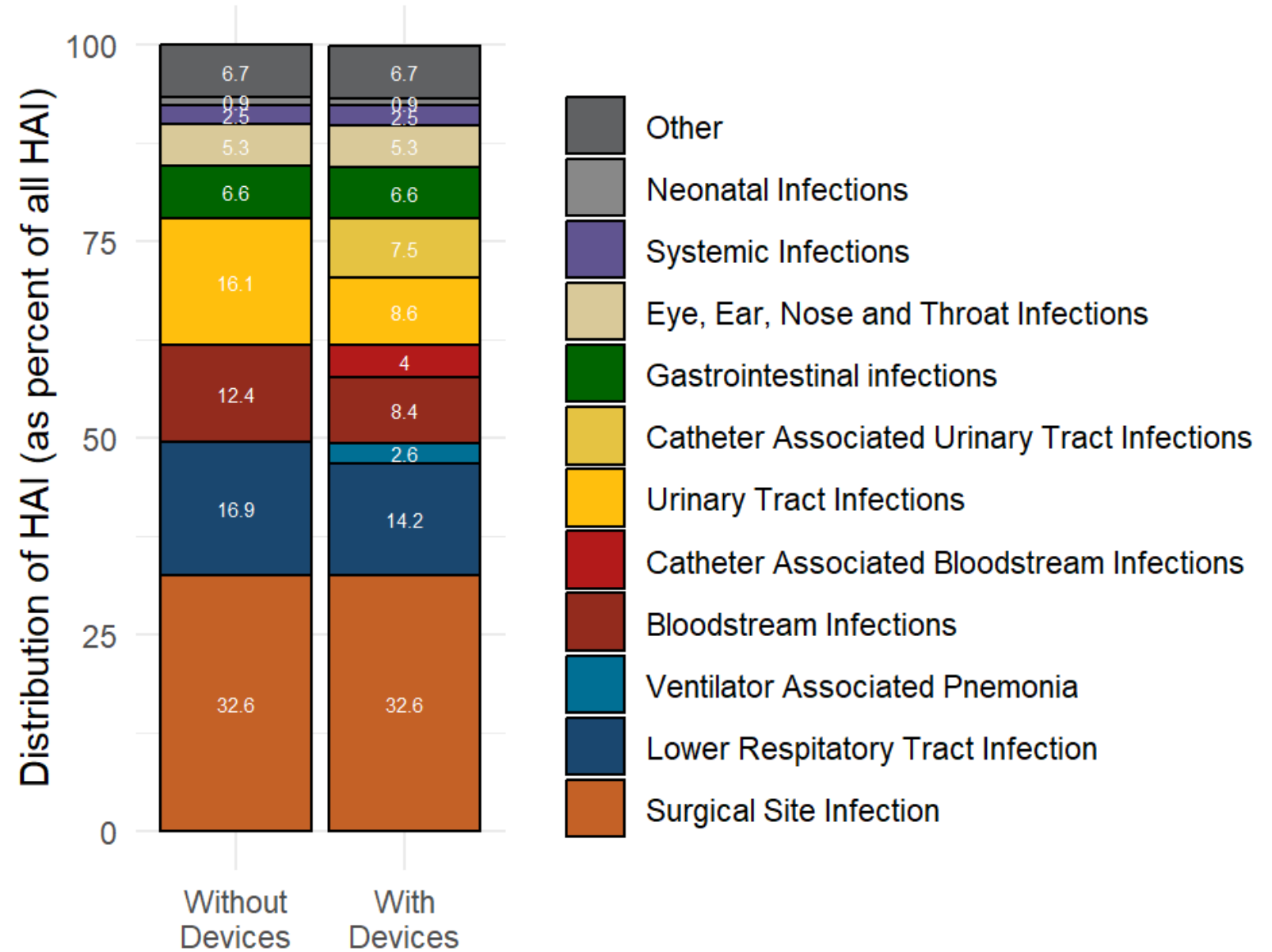
N : 20 869/293 581

(**7.1%** ; 95% CI 7.0–7.2%)

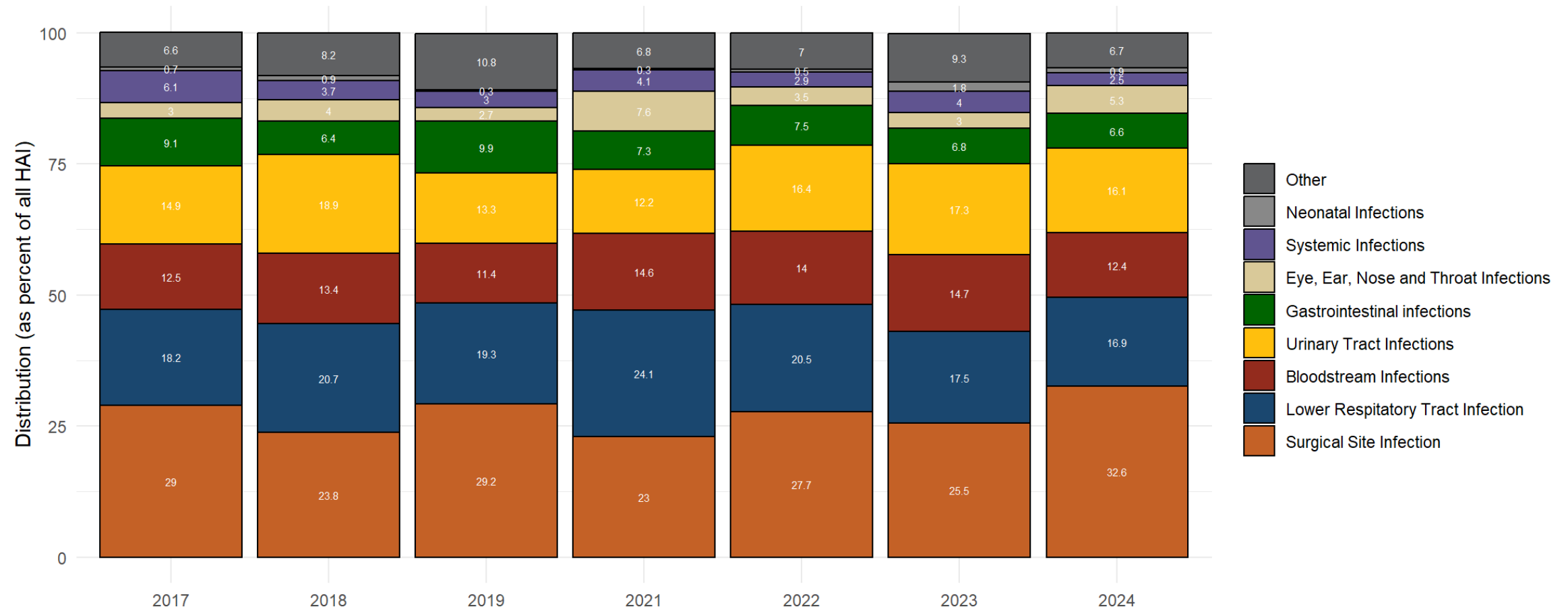
Prévalence des IAS de 2017 à 2024



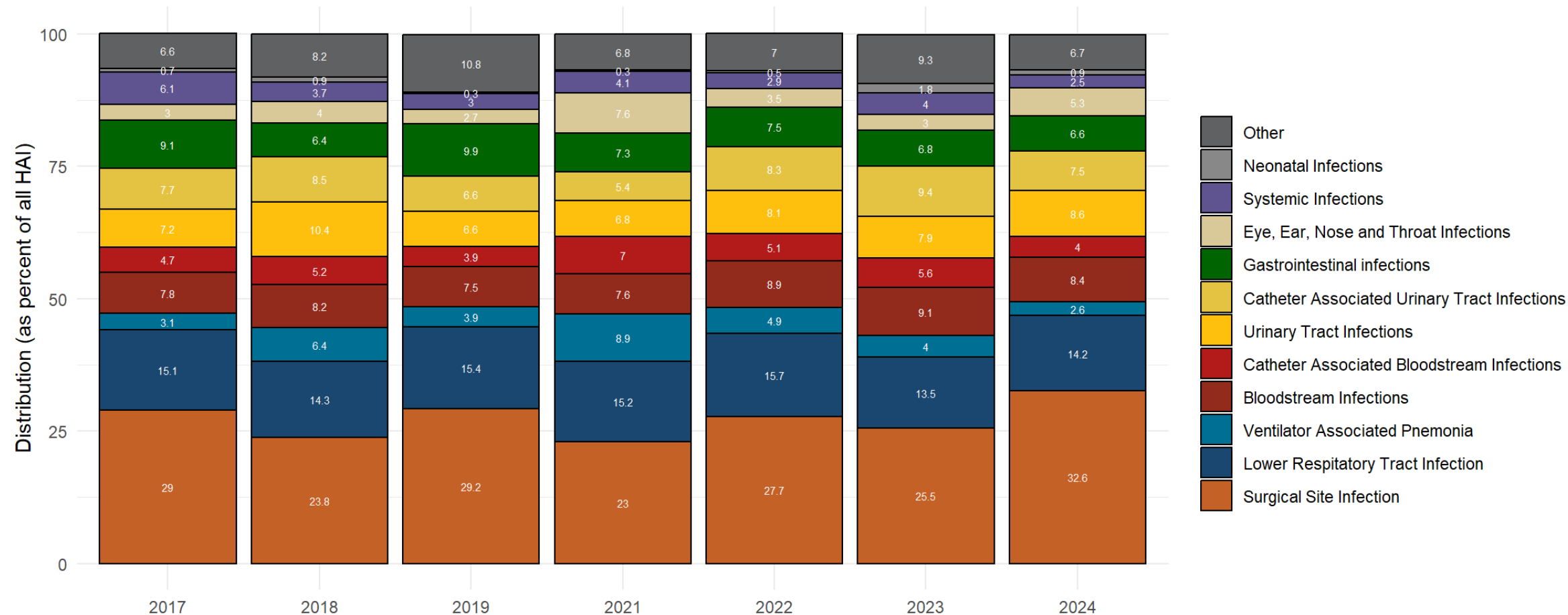
Distribution des IAS



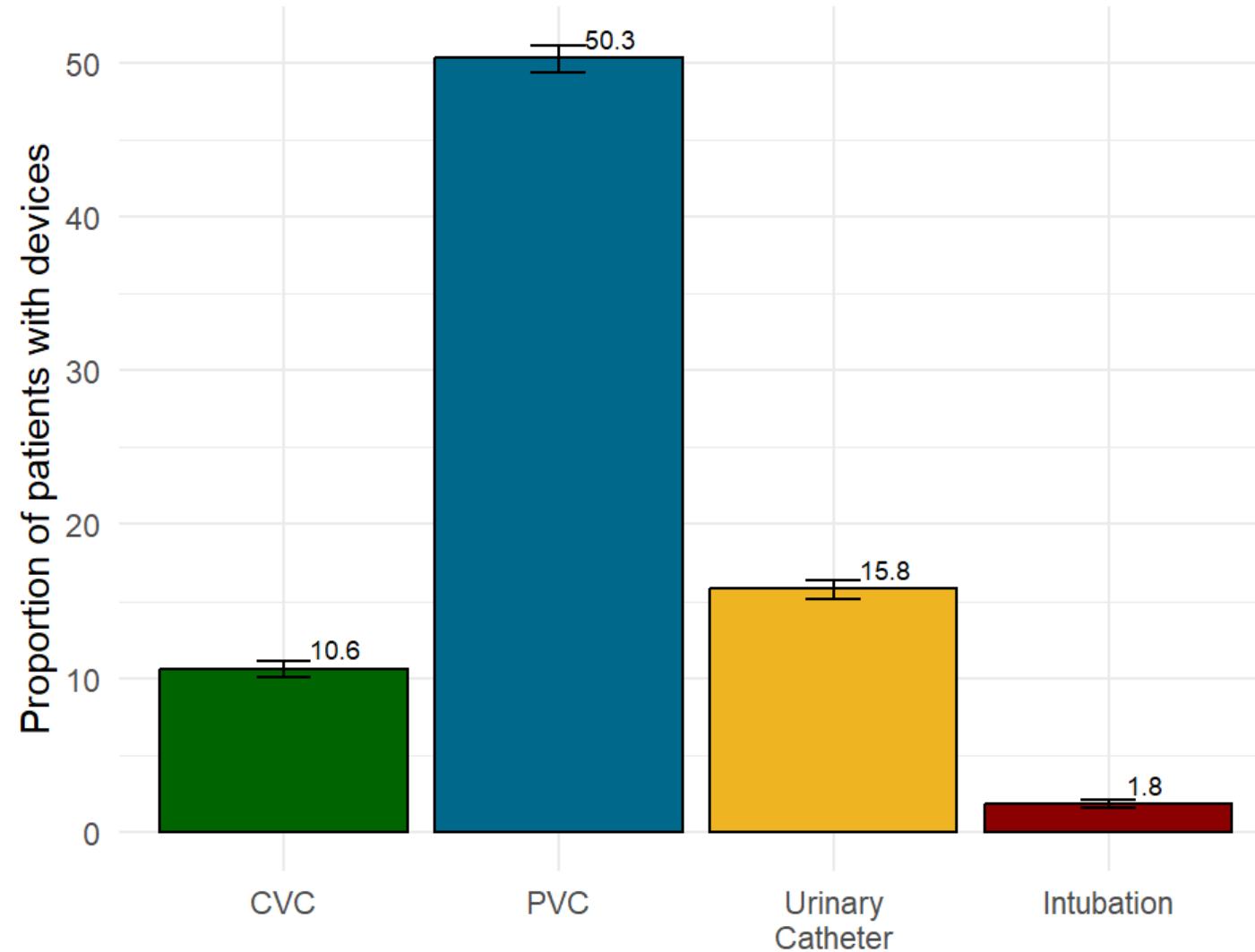
Distribution des IAS (hors infections associées aux dispositifs médicaux) 2017-2024



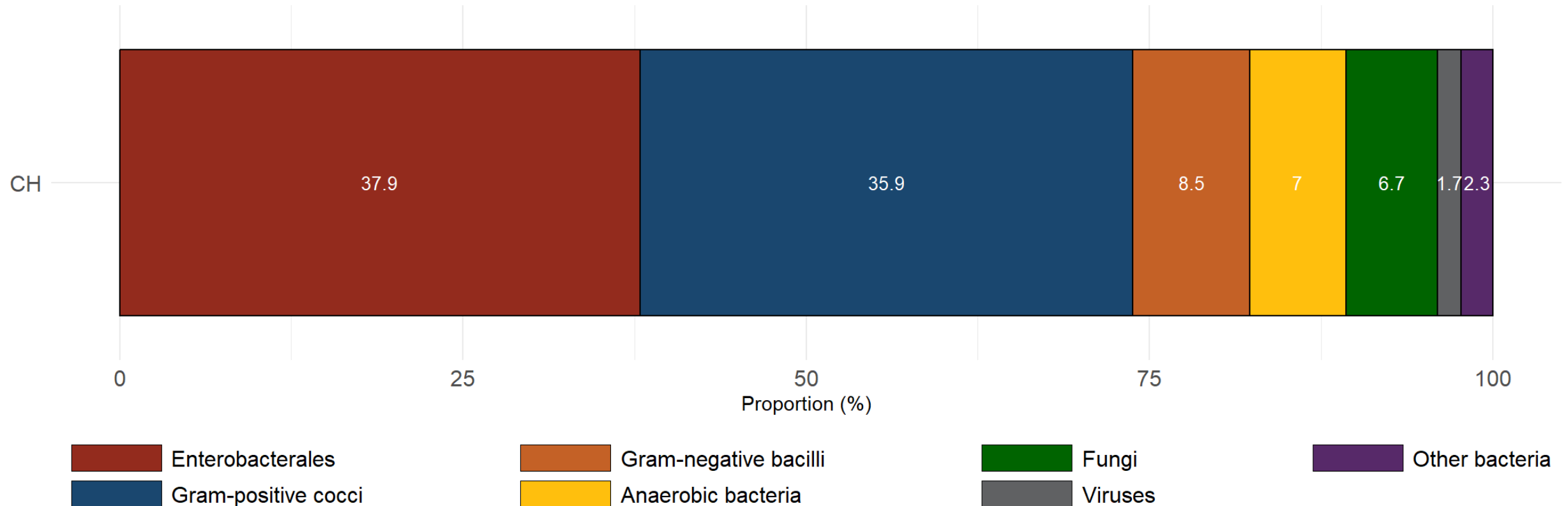
Distribution des IAS (y c. infections associées aux dispositifs médicaux) 2017-2024



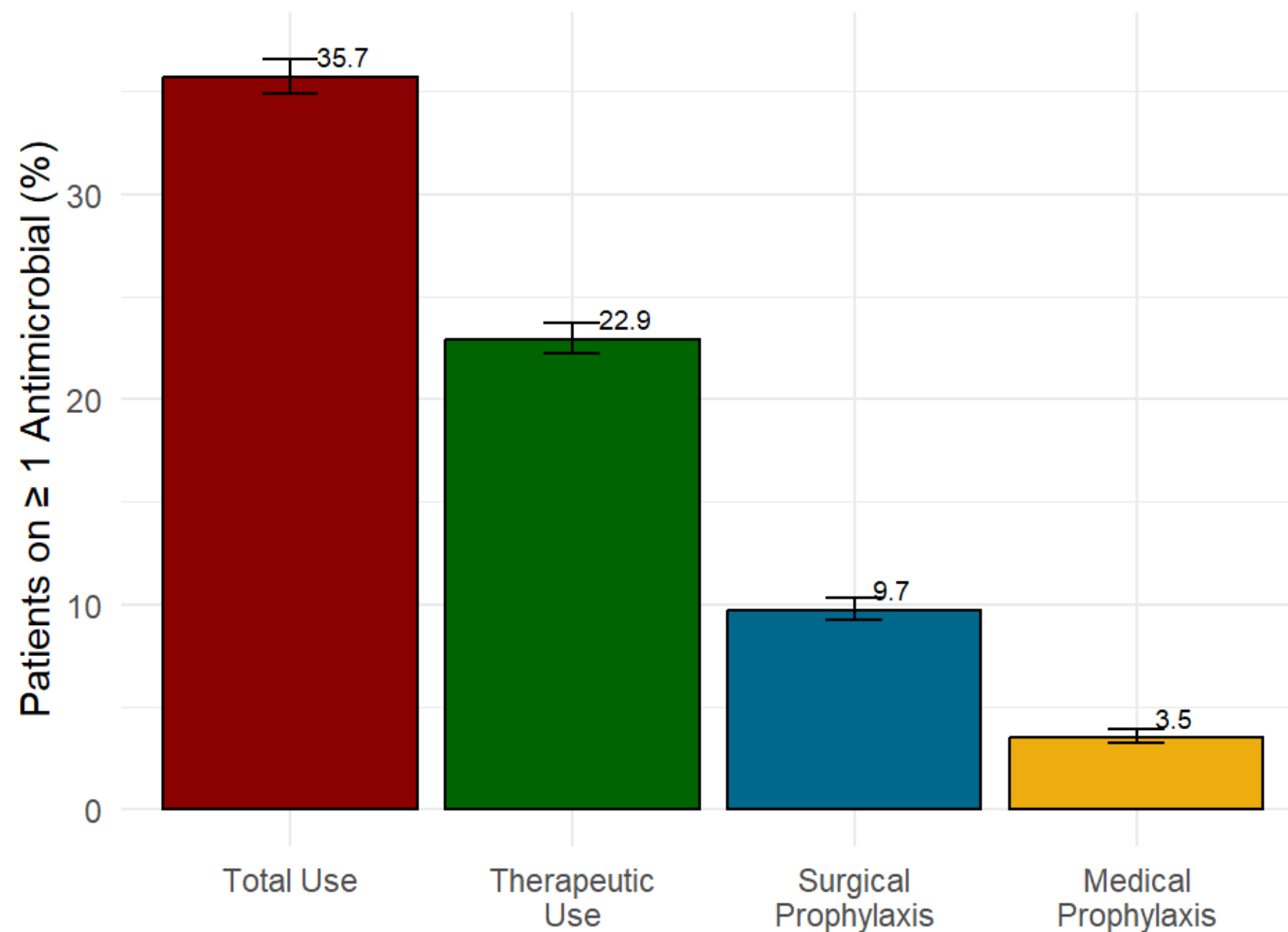
Patients avec dispositif médical



Distribution des agents pathogènes

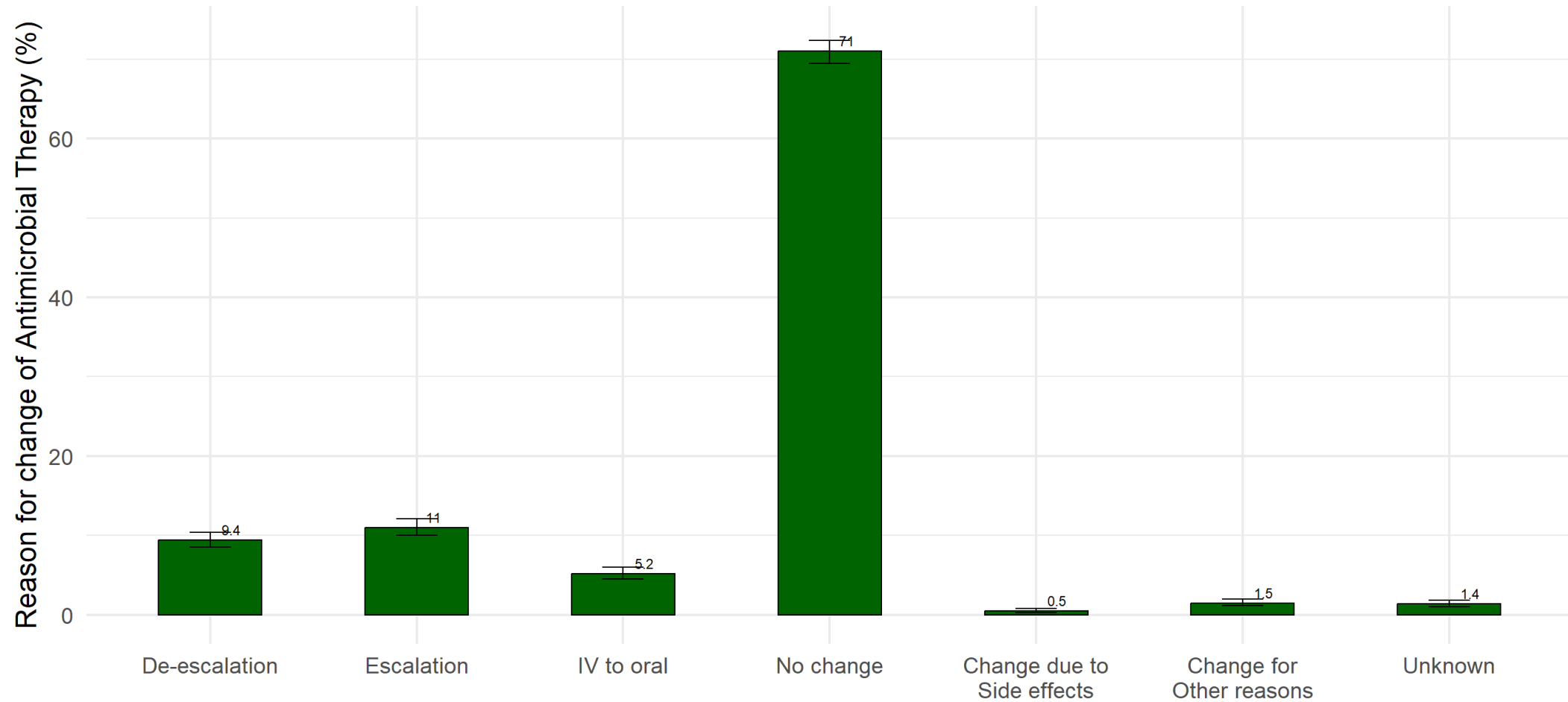


Utilisation d'antibiotiques



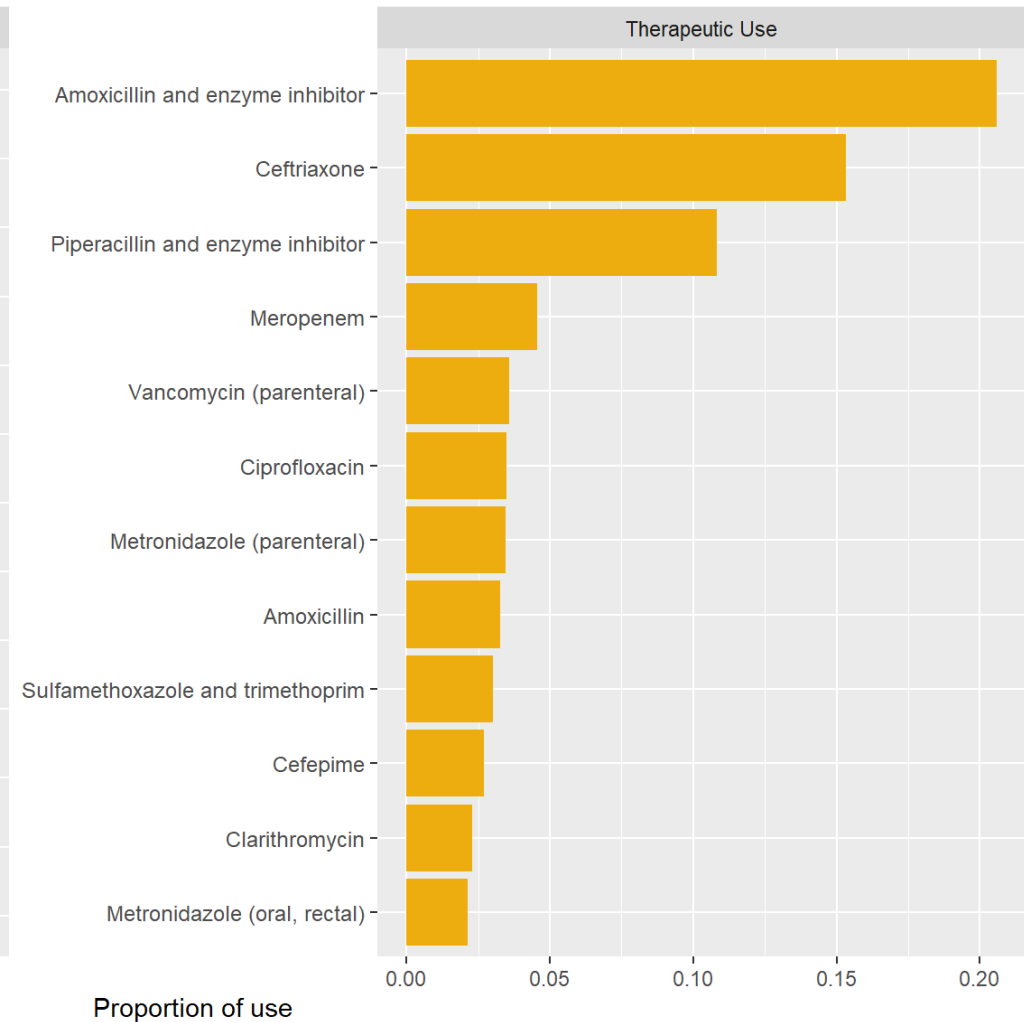
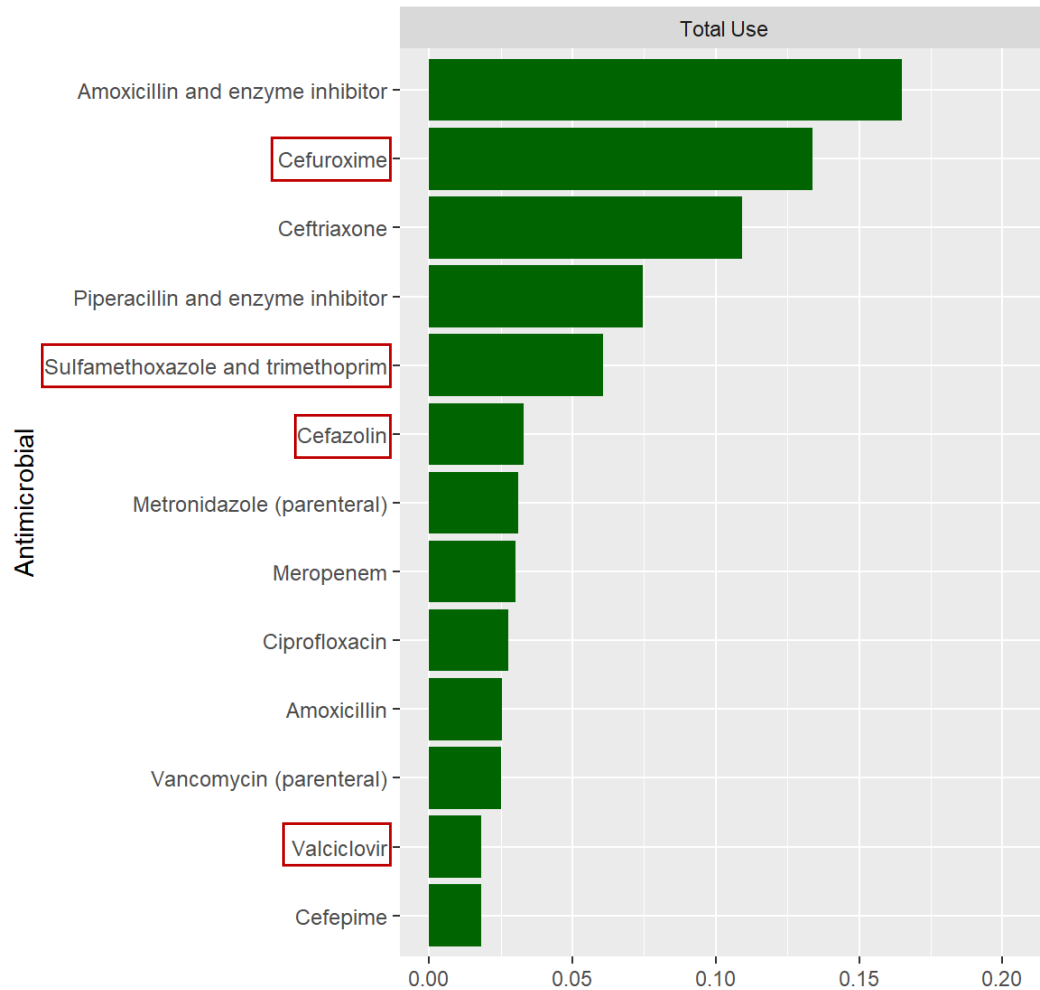
Error bars represent 95% confidence interval

Changements de traitements antibiotiques



Error bars represent 95% confidence interval

Antibiotiques représentant 75 % de la consommation



Utilisation d'antibiotiques (catégories AWaRe de l'OMS)



4^e atelier des parties prenantes de la Stratégie NOSO

8 novembre 2024, Berne

Les stratégies multimodales dans la prévention des infections

Walter Zingg, responsable de l'hygiène hospitalière, Hôpital universitaire de Zurich

An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU

Peter Pronovost, M.D., Ph.D., Dale Needham, M.D., Ph.D., Sean Berenholtz, M.D., David Sinopoli, M.P.H., M.B.A., Haitao Chu, M.D., Ph.D., Sara Cosgrove, M.D., Bryan Sexton, Ph.D., Robert Hyzy, M.D., Robert Welsh, M.D., Gary Roth, M.D., Joseph Bander, M.D., John Kepros, M.D., and Christine Goeschel, R.N., M.P.A.

Hygiène des mains

Précautions maximales en matière de stérilité*

Désinfection de la peau à la chlorhexidine

Accès fémoral à éviter

Retrait des cathéters qui ne sont plus utilisés

*masque, charlotte, tablier stérile, grand drap stérile, gants stériles

Set de mesures

Table 3. Rates of Catheter-Related Bloodstream Infection from Baseline (before Implementation of the Study Intervention) to 18 Months of Follow-up.*						
Study Period	No. of ICUs		No. of Bloodstream Infections per 1000 Catheter-Days			
			Overall	Teaching Hospital	Nonteaching Hospital	<200 Beds ≥200 Beds
Baseline	55		2.7 (0.6–4.8)	2.7 (0.6–4.8)	0 (0–3.5)	0 (0–5.8)
During implementation	96		1.6 (0–4.4)†	1.7 (0–4.5)	0 (0–3.5)	1.7 (0–4.3)†
After implementation						
0–3 mo	96	→	0 (0–3.0)‡	1.3 (0–3.1)†	0 (0–1.6)†	1.1 (0–3.1)‡
4–6 mo	96	→	0 (0–2.7)‡	1.1 (0–3.6)†	0 (0–0)‡	0 (0–3.2)‡
7–9 mo	95	→	0 (0–2.1)‡	0.8 (0–2.4)‡	0 (0–0)‡	0 (0–2.2)‡
10–12 mo	90	→	0 (0–1.9)‡	0 (0–2.3)‡	0 (0–1.5)‡	0.2 (0–2.3)‡
13–15 mo	85	→	0 (0–1.6)‡	0 (0–2.2)‡	0 (0–0)‡	0 (0–2.2)‡
16–18 mo	70	→	0 (0–2.4)‡	0 (0–2.4)‡	0 (0–0)‡	0 (0–2.4)‡

Médiane pour 1000 jours de cathéter

Moyenne pour 1000 jours de cathéter : 7.7

Moyenne pour 1000 jours de cathéter : 1.3

Pourquoi l'étude a-t-elle été un succès ?

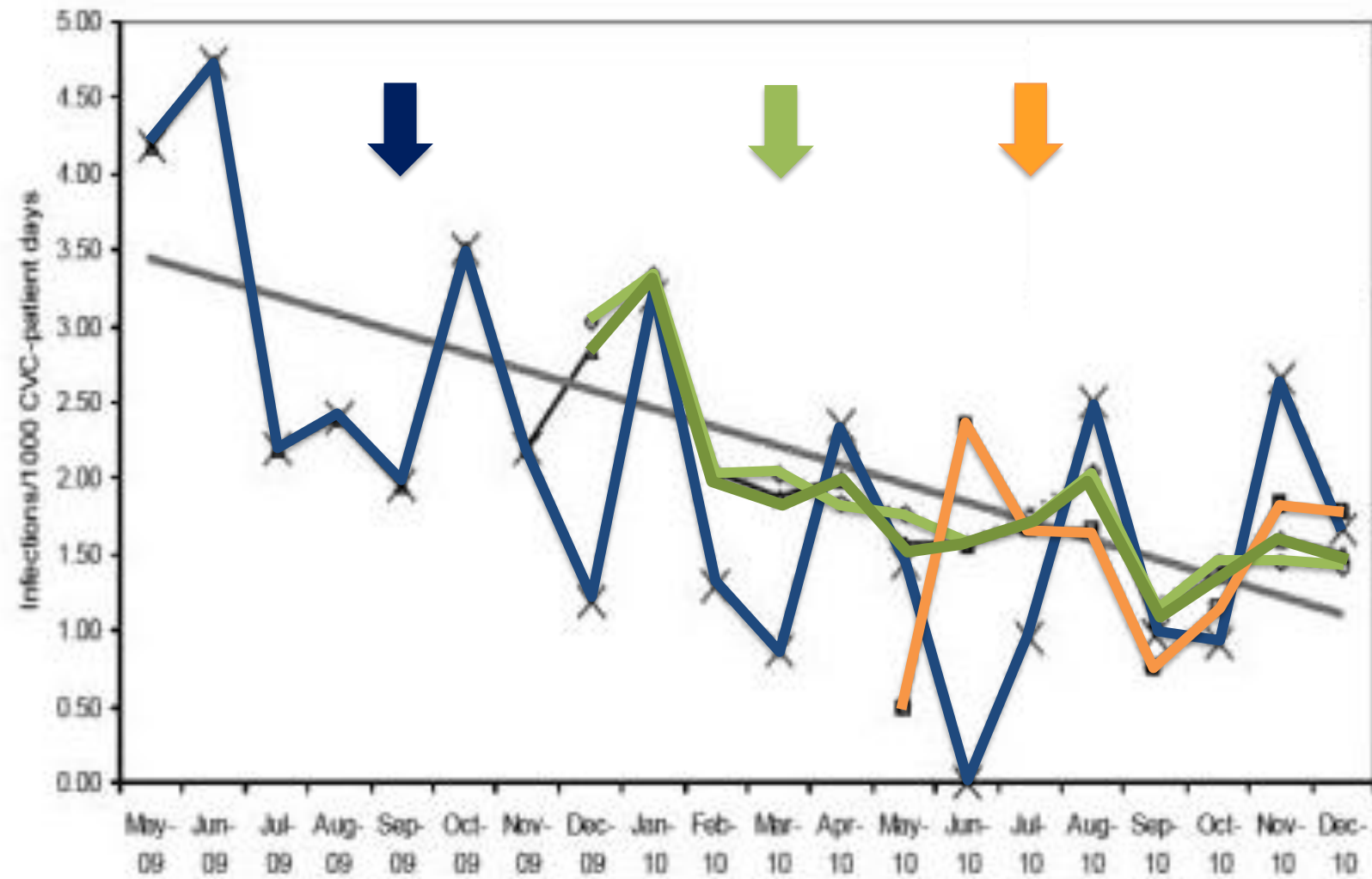


OPEN ACCESS

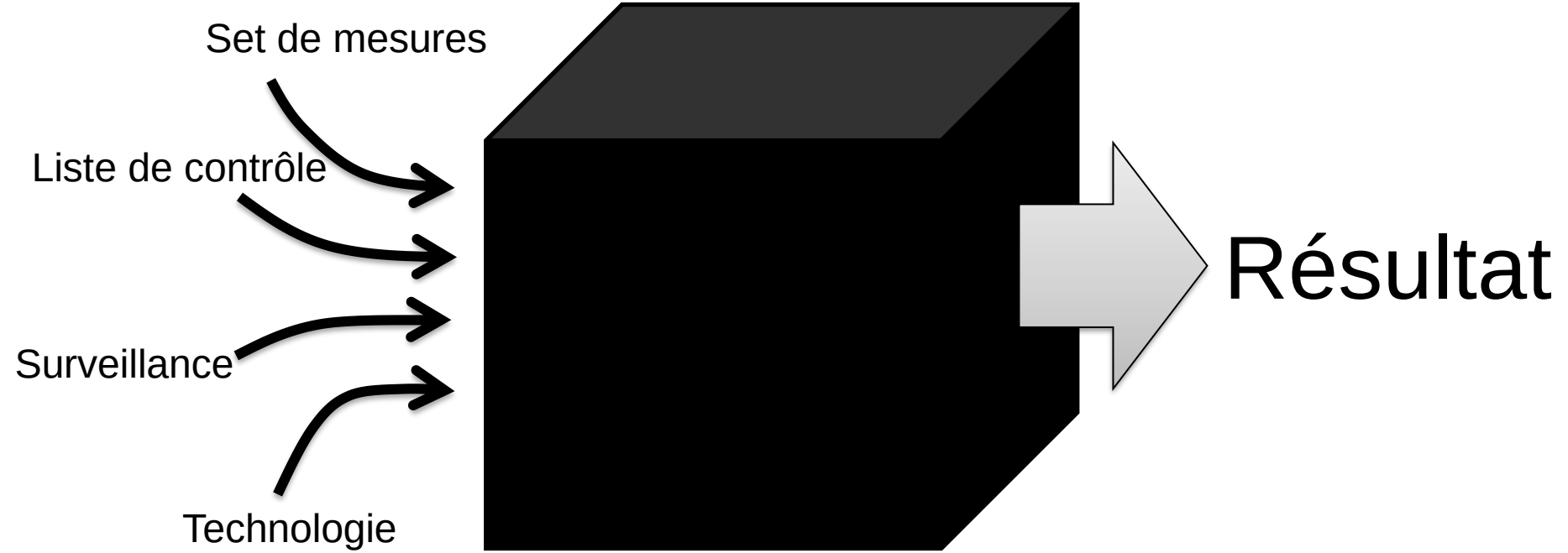
'Matching Michigan': a 2-year stepped interventional programme to minimise central venous catheter-blood stream infections in intensive care units in England

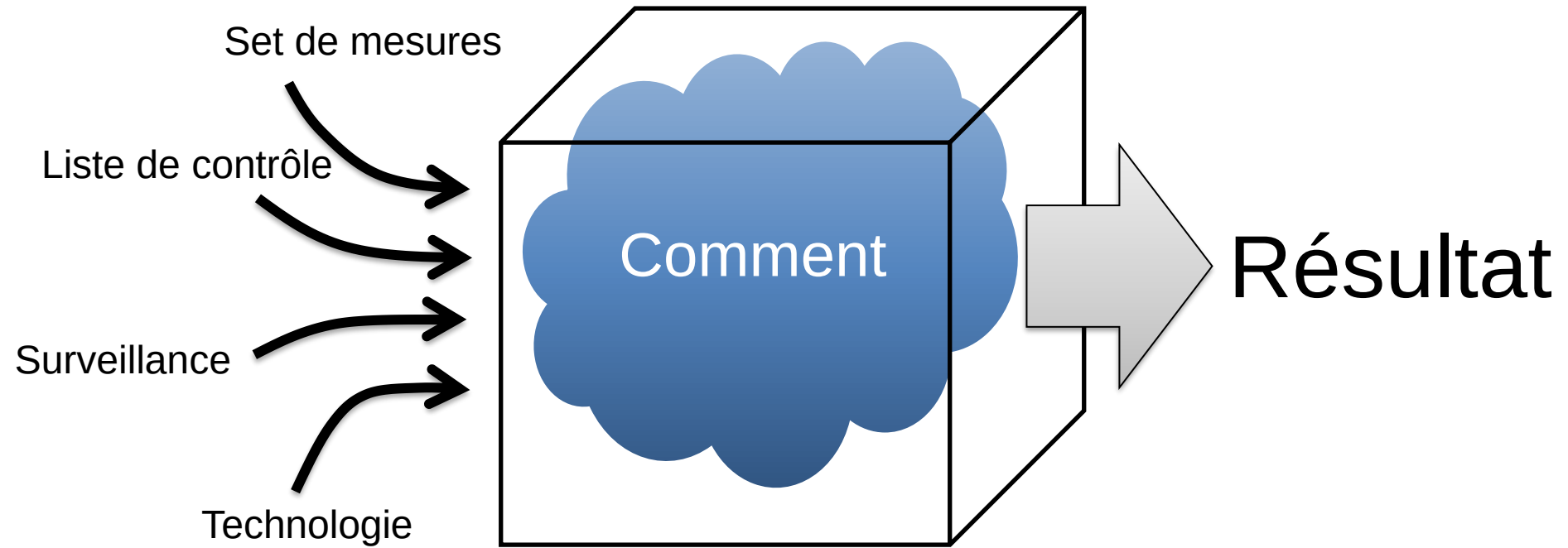
THE MATCHING MICHIGAN COLLABORATION & WRITING COMMITTEE

Étude prospective non randomisée en quatre groupes, sur deux ans,
223 unités de soins intensifs en Angleterre – Matching Michigan Collaborative



« La réduction marquée des bactériémies associées aux cathéters est l'expression d'une tendance à long terme dans un système où la prévention des infections nosocomiales a connu une amélioration générale »

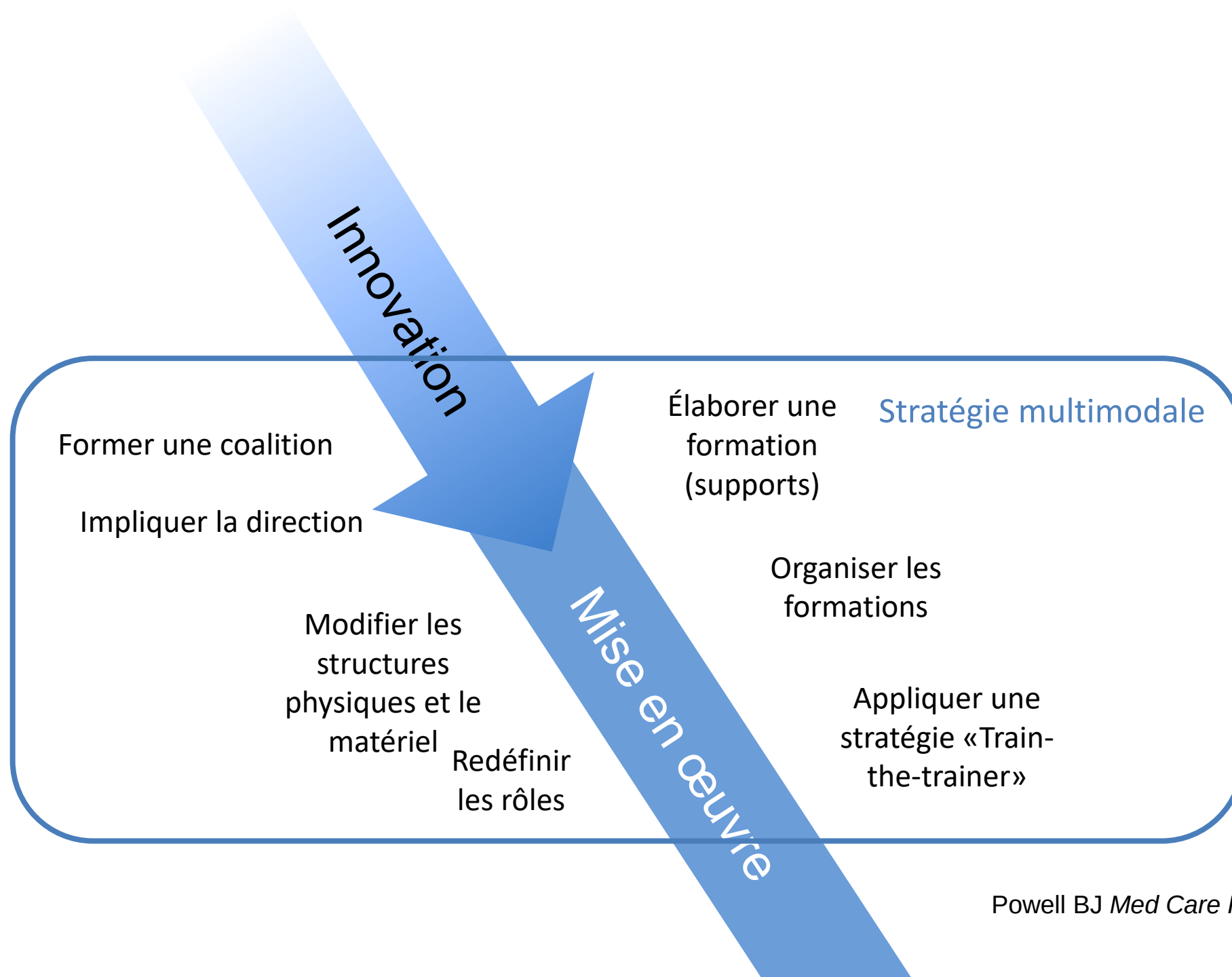




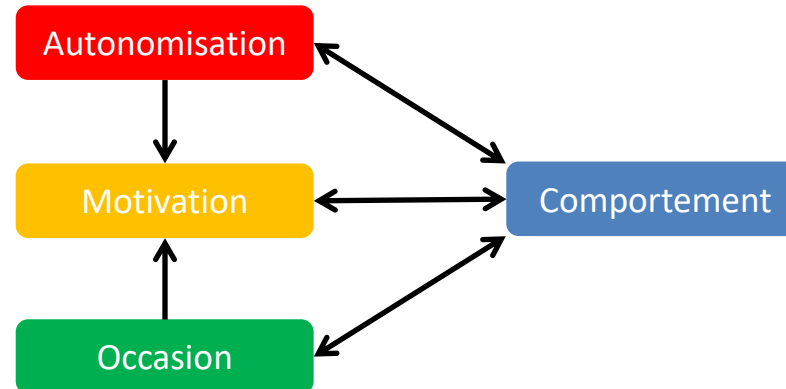
Stratégie (de mise en œuvre) multimodale

Définition d'une « stratégie multimodale »

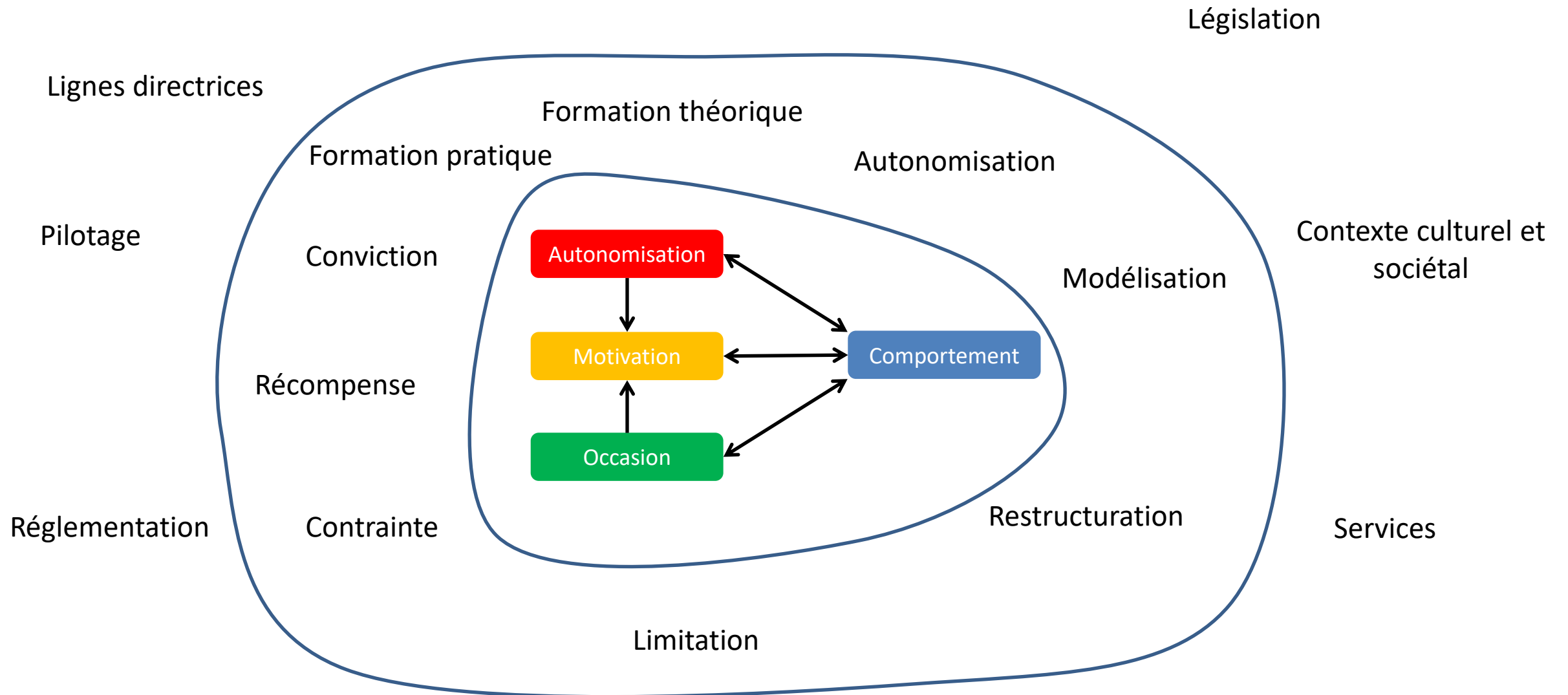
- Les stratégies multimodales combinent des stratégies de mise en œuvre avec différentes méthodes (p. ex. des conférences, des visualisations, des cours pratiques ou l'apprentissage en ligne), l'objectif étant de soutenir la mise en œuvre d'une innovation.
- Il n'existe pas *UNE stratégie multimodale*, mais plutôt divers éléments à prendre en compte lors du développement d'une telle stratégie.



Éléments qui déterminent le comportement



Éléments qui déterminent le comportement



Key components (ECDC – SIGHT)	Core components (WHO)
An effective infection control programme in an acute care hospital must include at least: one full-time specifically trained IC-nurse ≤ 250 beds; a dedicated physician trained infection control; microbiological support; data management support	An IPC programme with a dedicated, trained team should be in place in each acute health care facility for the purpose of preventing HAI and combating AMR through IPC good practices
To make sure that the ward occupancy does not exceed the capacity for which it is designed and staffed; staffing and workload of frontline health-care workers must be adapted to acuity of care; and the number of pool/agency nurses and physicians minimized	In order to reduce the risk of HAI and the spread of AMR, the following should be addressed: (1) bed occupancy should not exceed the standard capacity of the facility; (2) health care worker staffing levels should be adequately assigned according to patient workload
Sufficient availability of and easy access to material and equipment and optimized ergonomics	At the facility level, patient care activities should be undertaken in a clean and/or hygienic environment that facilitates practices related to the prevention and control of HAI, as well as AMR, including all elements around the WASH infrastructure and services and the availability of appropriate IPC materials and equipment
Use of guidelines in combination with practical education and training	Evidence-based guidelines should be developed and implemented for the purpose of reducing HAI and AMR. Education and training of the relevant health care workers on guideline recommendations and monitoring of adherence with guideline recommendations should be undertaken to achieve successful implementation
Education and training involves frontline staff, and is team- and task-oriented	At the facility level, IPC education should be in place for all health care workers by utilizing team- and task-based strategies that are participatory and include bedside and simulation training to reduce the risk of HAI and AMR.
Organizing audits as a standardized (scored) and systematic review of practice with timely feedback	Regular monitoring/audit and timely feedback of health care practices should be undertaken according to IPC standards to prevent and control HAIs and AMR at the health care facility level. Feedback should be provided to all audited persons and relevant staff
Participating in prospective surveillance and offering active feedback, preferably as part of a network	Facility-based HAI surveillance should be performed to guide IPC interventions and detect outbreaks, including AMR surveillance with timely feedback of results to health care workers and stakeholders and through national networks
La mise en œuvre de programmes de prévention des infections est fondée sur une stratégie multimodale élaborée par des groupes multidisciplinaires et tenant compte des particularités du contexte local	At the facility level, IPC activities should be implemented using multimodal strategies to improve practices and reduce HAI and AMR
Identifying and engaging champions in the promotion of a multimodal intervention strategy	
A positive organizational culture by fostering working relationships and communication across units and staff groups	

Zingg W *Lancet Infect Dis* 2015;15:212

Storr J *Antimicrob Resist Infect Control* 2017;6:6



Exigences structurelles minimales en matière de prévention et de lutte contre les infections associées aux soins (IAS) dans les hôpitaux de soins aigus en Suisse

Version 3.0, 17 mai 2022
(modifications voir p. 18)

Composante clé n°7

Interventions

Composante clé n°7	WHO minimal standard CC5	Key component 8
Au moins un module d'intervention , reconnu au niveau cantonal et/ou national, pour la prévention des infections associées aux soins (ou pour la prévention d'un type spécifique d'infection associée aux soins) doit être mis en œuvre.	Primary care: MMIS to implement priority IPC measures (hand hygiene, injection safety, decontamination of medical equipment, environmental cleaning) Secondary care: MMIS for implementation of all standard and transmission-based precautions and for triage Tertiary care: same as secondary care + MMIS for specific types of HAI (e.g. CLABSI) according to local risk and epidemiology	La mise en œuvre de programmes de prévention des infections est fondée sur une stratégie multimodale élaborée par des groupes multidisciplinaires et tenant compte des particularités du contexte local.

WHO multimodal improvement strategy

Multimodal implementation strategies are a core component of effective infection prevention and control (IPC) programmes according to the WHO Guidelines on Core Components of IPC programmes at the National and Acute Health Care Facility Level.

The guidelines' **recommendation 5** states that IPC activities using multimodal strategies should be implemented to improve practices and reduce HAI and AMR. In practice, this means the use of multiple approaches that in combination will contribute to influencing the behaviour of the target audience (usually health care workers) towards the necessary improvements that will impact on patient outcome and contribute to organizational culture change. Implementation of IPC multimodal strategies needs to be linked with the aims and initiatives of quality improvement programmes and accreditation bodies both at the national and facility levels.

Five key elements to focus on when improving IPC

The multimodal strategy consists of several elements (3 or more; usually 5) implemented in an integrated way to guide action and provide a clear focus for the implementer.

Targeting only ONE area (i.e. unimodal), is highly likely to result in failure. All five areas should be considered, and necessary action taken, based on the local context and situation informed by periodic assessments.

WHO identifies five elements for IPC multimodal strategies in a health care context:

- 1 the system change** needed to enable IPC practices, including infrastructure, equipment, supplies and other resources;
- 2 training and education** to improve health worker knowledge;
- 3 monitoring and feedback** to assess the problem, drive appropriate change and document practice improvement;
- 4 reminders and communications** to promote the desired actions, at the right time, including campaigns;
- 5 a culture of safety** to facilitate an organizational climate that values the intervention, with a focus on involvement of senior managers, champions or role models.

In other words, the WHO multimodal improvement strategy addresses these five areas:

1. Build it (system change)



- What infrastructures, equipment, supplies and other resources (including human) are required to implement the intervention?
- Does the physical environment influence health worker behaviour? How can ergonomics and human factors approaches facilitate adoption of the intervention?
- Are certain types of health workers needed to implement the intervention?
- **Practical example:** when implementing hand hygiene interventions, ease of access to handrubs at the point of care and the availability of WASH infrastructures (including water and soap) are important considerations. Are these available, affordable and easily accessible in the workplace? If not, action is needed.

2. Teach it (training & education)



- Who needs to be trained? What type of training should be used to ensure that the intervention will be implemented in line with evidence-based policies and how frequently?
- Does the facility have trainers, training aids, and the necessary equipment?
- **Practical example:** when implementing injection safety interventions, timely training of those responsible for administering safe injections, including carers and community workers, are important considerations, as well as adequate disposal methods.

3. Check it (monitoring & feedback)



- How can you identify the gaps in IPC practices or other indicators in your setting to allow you to prioritize your intervention?
- How can you be sure that the intervention is being implemented correctly and safely, including at the bedside? For example, are there methods in place to observe or track practices?
- How and when will feedback be given to the target audience and managers? How can patients also be informed?
- **Practical example:** when implementing surgical site infection interventions, the use of key tools are important considerations, such as surveillance data collection forms and the WHO checklist (adapted to local conditions).

4. Sell it (reminders & communication)



- How are you promoting an intervention to ensure that there are cues to action at the point of care and messages are reinforced to health workers and patients?
- Do you have capacity/funding to develop promotional messages and materials?
- **Practical example:** when implementing interventions to reduce catheter-associated bloodstream infection, the use of visual cues to action, promotional/reinforcing messages, and planning for periodic campaigns are important considerations.

5. Live it (culture change)



- Is there demonstrable support for the intervention at every level of the health system? For example, do senior managers provide funding for equipment and other resources? Are they willing to be champions and role models for IPC improvement?
- Are teams involved in co-developing or adapting the intervention? Are they empowered and do they feel ownership and the need for accountability?
- **Practical example:** when implementing hand hygiene interventions, the way that a health facility approaches this as part of safety and quality improvement and the value placed on hand hygiene improvement as part of the clinical workflow are important considerations.

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In other words, WHO improves these

- Who needs to be used to ensure evidence-based practices?
- Does the physical environment influence health worker behaviour?
- Practical example: when implementing hand hygiene interventions, ease of access to handrubs at the point of care and the availability of WASH infrastructures (including water and soap) are important considerations. Are these available, affordable and easily accessible in the workplace? If not, action is needed.

1. Build it (system change)



- What infrastructures, equipment, supplies and other resources (including human) are required to implement the intervention?
- Does the physical environment influence health worker behaviour? How can ergonomics and human factors approaches facilitate adoption of the intervention?
- Are certain types of health workers needed to implement the intervention?
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4. Sell it

(reminders & communication)



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WHO multimodal implementation strategy

Multimodal implementation strategy for prevention and control (IPC) programmes
Components of IPC programmes

The guidelines' **recommendations** on implementation strategies should be implemented. In practice, this means the use of multiple strategies to contribute to influencing the behaviour of health workers towards the necessary changes and contribute to organizational changes. Strategies need to be linked with other programmes and accreditation bodies.

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- 3 **monitoring and feedback** to assess the problem, drive appropriate change and document practice improvement;

- 5 **a culture of safety** to facilitate an organizational climate that values the intervention, with a focus on involvement of senior managers, champions or role models.

2. Teach it (training & education)



- Who needs to be trained? What type of training should be used to ensure that the intervention will be implemented in line with evidence-based policies and how frequently?
- Does the facility have trainers, training aids, and the necessary equipment?
- **Practical example:** when implementing injection safety interventions, timely training of those responsible for administering safe injections, including carers and community workers, are important considerations, as well as adequate disposal methods.

- Do you have capacity/funding to develop promotional messages and materials?
- **Practical example:** when implementing interventions to reduce catheter-associated bloodstream infection, the use of visual cues to action, promotional/reinforcing messages, and planning for periodic campaigns are important considerations.

1. Build it (system change)



Structures, equipment, supplies and other (including human) are required to implement the

Physical environment influence health worker behaviour. Can ergonomics and human factors facilitate adoption of the intervention?

Types of health workers needed to implement the

Practical example: when implementing hand hygiene interventions, ease of access to handrubs at the point of care and availability of WASH infrastructures (including water supply) are important considerations. Are these available, and easily accessible in the workplace? If not, action

practices?

- How and when will feedback be given to the target audience and managers? How can patients also be informed?
- **Practical example:** when implementing surgical site infection interventions, the use of key tools are important considerations, such as surveillance data collection forms and the WHO checklist (adapted to local conditions).



Ensure that there are no barriers to

5. Live it (culture change)



- Is there demonstrable support for the intervention at every level of the health system? For example, do senior managers provide funding for equipment and other resources? Are they willing to be champions and role models for IPC improvement?
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Components of IPC programmes

The guidelines' **recommendations** on IPC strategies should be implemented. In practice, this means the use of multiple strategies to contribute to influencing the behaviour of health workers towards the necessary changes and contribute to organizational changes. Strategies need to be linked with other programmes and accreditation bodies.

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- 3 **monitoring and feedback** to assess the problem, drive appropriate change and document practice improvement;

- 5 **a culture of safety** to facilitate an organizational climate that values the intervention, with a focus on involvement of senior managers, champions or role models.

- Do you have capacity/sufficient resources, messages and materials?
- **Practical example:** when reducing catheter-associated infections, visual cues to action, pre-emptive planning for periodic catheter changes are important.

1. Build it (system change)



Structures, equipment, supplies and other (including human) are required to implement the intervention.

Physical environment influence health worker behaviour.

2. Teach it (training & education)



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3. Check it (monitoring & feedback)



- How can you identify the gaps in IPC practices or other indicators in your setting to allow you to prioritize your intervention?
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WHO multimodal intervention

Multimodal implementation strategies for prevention and control (IPC) programmes
Components of IPC programmes

The guidelines' recommendations suggest that multimodal strategies should be implemented. In practice, this means the use of multiple strategies to contribute to influencing the behaviour of health workers and patients. Multimodal strategies include: (1) training health workers; (2) providing reminders to health workers and patients; (3) providing educational materials to patients; (4) providing equipment and supplies; and (5) creating a supportive environment.

Five key elements to focus on

The multimodal intervention consists of five key elements: usually 5 elements are integrated into an integrated action plan, with a focus on the following:

Targeting: unimodal to result areas should be based on and situated in periodic

2. Teach it (training & education)

- Who needs to be trained? What type of training should be used to ensure that the intervention will be implemented with evidence-based policies and how frequently?

4. Sell it (reminders & communication)

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1. Build it (system change)

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3. Check it (monitoring & feedback)

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WHO multimodal intervention

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Components of IPC programmes

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Five key elements to focus on for improvement

The multimodal intervention consists of several elements that usually form an integrated action plan with a focus on improvement.

Targeting unimodal to result areas should be based on needs and situational analysis.

2. Teach it (training & education)



- Who needs to be trained? What type of training should be used to ensure that the intervention will be implemented with evidence-based policies and how frequently?

4. Sell it (reminders & communication)



- How are you promoting an intervention to ensure that there are cues to action at the point of care and messages are reinforced to health workers and patients?
- Do you have capacity/funding to develop promotional messages and materials?
- **Practical example:** when implementing interventions to reduce catheter-associated bloodstream infection, the use of visual cues to action, promotional/reinforcing messages, and planning for periodic campaigns are important considerations.

1. Build it (system change)



Structures, equipment, supplies and other (including human) are required to implement the intervention. The physical environment influence health worker

3. Check it (monitoring & feedback)



5. Live it (culture change)



- Is there demonstrable support for the intervention at every level of the health system? For example, do senior managers provide funding for equipment and other resources? Are they willing to be champions and role models for IPC improvement?
- Are teams involved in co-developing or adapting the intervention? Are they empowered and do they feel ownership and the need for accountability?
- **Practical example:** when implementing hand hygiene interventions, the way that a health facility approaches this as part of safety and quality improvement and the value placed on hand hygiene improvement as part of the clinical workflow are important considerations.

4^e atelier des parties prenantes de la stratégie NOSO

8 novembre 2024, Berne

Les stratégies multimodales dans la prévention des infections

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