

# Respiratory infection prevention: perceptions, barriers and facilitators

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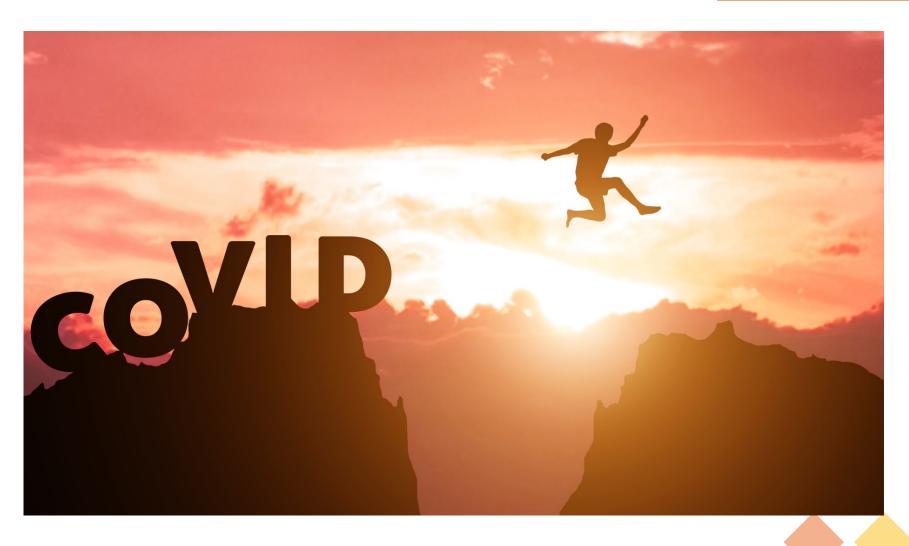
www.webbertraining.com March 4, 2022

**Pierre Parneix** 



## **Post Covid period**

How to move forward?





# MATIS: national Transversal Support Mission for the Prevention of Healthcare-Associated Infections

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Medical physicians
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Nurses
Data manager
Psychologists
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#### **Heath Psychologists**







#### Toolboxes for IC teams, managers Health care workers and patients



#### Réseau de Prévention des Infections Associées aux Soins

QUI SOMMES NOUS?

**DOCUMENTATION** 

BOÎTES À OUTILS

CAMPAGNES V

HYGIÈNE DES MAINS

FORMATION ~

PARTAGEONS ~

#### **BOÎTES À OUTILS**

Cette page regroupe les outils nationaux d'évaluation, de formation et de communication élaborés par la mission de soutien aux actions de prévention des IAS selon trois thématiques : hygiène des mains (boîte à outils 2019-2023), péril fécal (boîte à outils 2020), risque respiratoire (boîte à outils 2021).

Ces outils, basés sur la littérature et données probantes et testés en conditions réelles, sont des compléments aux outils existants déjà et regroupés dans → la base documentaire







https://www.preventioninfection.fr/



# The national Transversal Support Mission for the Prevention of Healthcare-Associated Infections

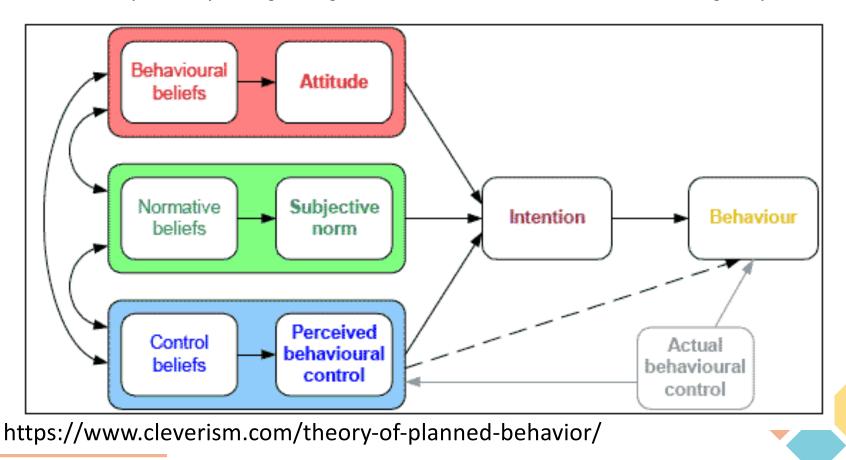




#### How do we behave?

# Reasoned Action Theories and Planned Behaviour Theories Ajzen et Fishben (1975-2001)

https://assets.publishing.service.gov.uk/media/57a08b4bed915d622c000bfd/BehaviorChangeweb.pdf



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**Social representations** 

Research project 2000 – Bordeaux Université Hospital

#### ✓ Definition:

« By representation, we mean a system of practical knowledge (opinions, images, attitudes, prejudices, stereotypes, beliefs), partly generated in contexts of socio-professional interactions (communication between individuals) and which can be described through their organization and structure ».





#### **Social representations**

"Ubiquitous" element of caregiver representations

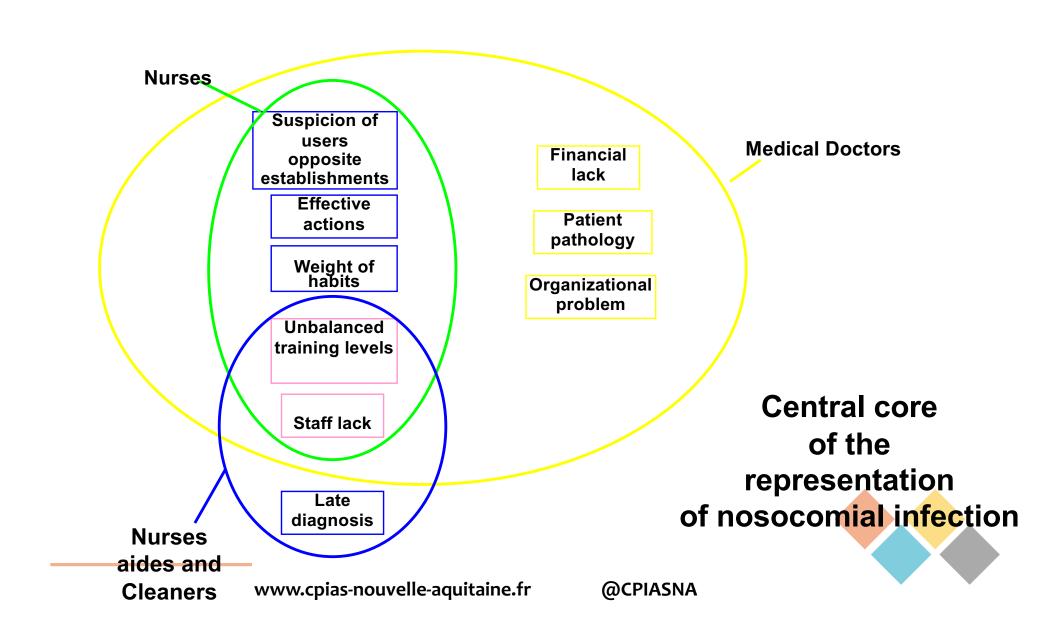
« No risk does not exist »\*

\* Screen item





**Social representations** 

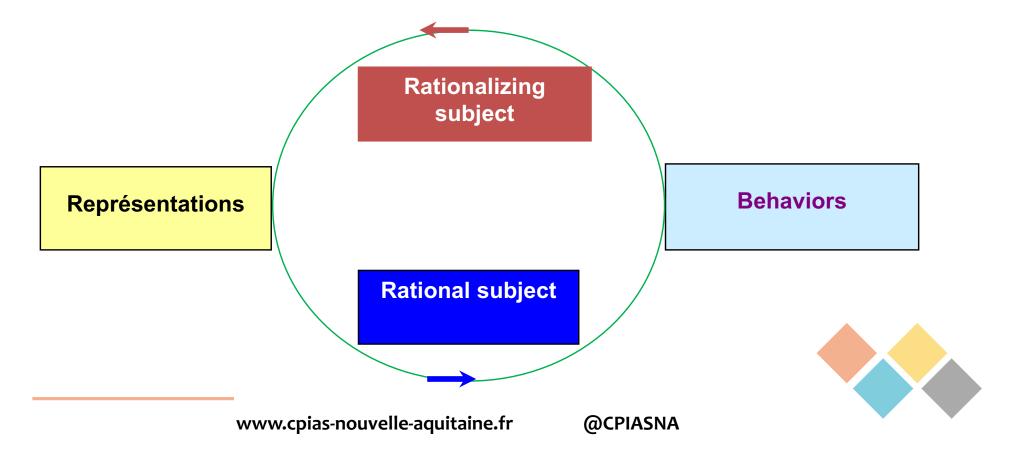




**Social representations** 

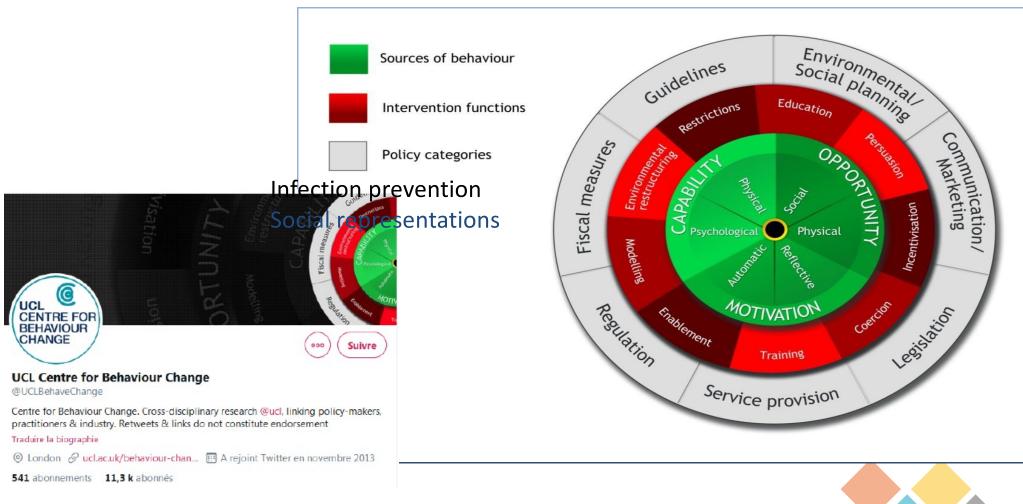
#### Representations and behaviors

✓ Theoritical model:





#### How to deal with behaviors?



#### Behaviour Change Wheel: 9 Intervention 'Functions' Use rules to reduce the I 💚 to Persuade opportunity to engage in Increase knowledge or the behaviour understanding Use communication to induce Education Restrictions positive or negative feelings to stimulate action Change the physical or social context Create an expectation of reward Provide an example for people Physical to aspire to or emulate MOTIVATION Create an expectation of **Training** Increase means punishment or cost or reduce barriers to increase capability (beyond education or

Impart skills

training) or opportunity (beyond environmental

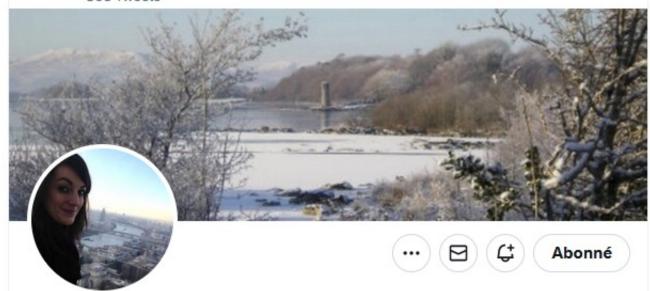
restructuring)



#### How to deal with behaviors?

#### Rachel Carey

803 Tweets



#### **Rachel Carey**

@rach\_carey Vous suit

Chief Scientist @ZincVC | Associate @UCLBehaveChange | UKRI Future Leaders Fellow

O London, England A rejoint Twitter en mars 2011

1749 abonnements 1510 abonnés



Suivi par SF2H, ZAHAR et 11 autres personnes que vous suivez





# Use and perception of ABHR HCPs representations

Infection Prevention in Practice 3 (2021) 100169



Available online at www.sciencedirect.com

#### Infection Prevention in Practice



journal homepage: www.elsevier.com/locate/ipip

# Barriers and facilitators on hand hygiene and hydroalcoholic solutions' use: representations of health professionals and prevention perspectives

Nicolas Calcagni<sup>a,\*</sup>, Anne-Gaëlle Venier<sup>b</sup>, Raymond Nasso<sup>c</sup>, Guillaume Broc<sup>d</sup>, Eva Ardichen<sup>b</sup>, Bruno Jarrige<sup>c</sup>, Pierre Parneix<sup>b</sup>, Bruno Quintard<sup>a</sup>

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## Use and perception of ABHR

How to move forward?

#### List of facilitators for the use of ABHR

Categories	Sub-categories	Details
Promoting	Improving accessibility	Small, easily transportable flasks, highlight ABHR presence in the services and in the rooms, regularly replenishing the common containers
access to the ABHR product	Diversity of textures and compositions	To offer different choices of solutions and change for the preference of caregivers
•	Emphasis on practicality	To present the advantages of ABHR compared to soap washing, in terms of time and efficiency.



Categories	Sub-categories	Details
	Showing and demonstrating	To demonstrate the transmission of germs in the field during treatment and the eradication of bacteria by ABHR.
Convincing and	Convincing and arguing	To prove efficacy, relevance, risks, non- toxicity and health effects on the basis of sound scientific studies and without conflicts of interest.
preventing	Communicating and involving	To inform, explain, question caregivers to raise their awareness and promote their interest and action.
	Raising awareness among patients and visitors	By means of welcome booklets, posters, communication by the caregivers



#### **HCPs** representations

Infection, Disease & Health 28 (2023) 54-63

Research paper

# Respiratory infection prevention: perceptions, barriers and facilitators after SARS-CoV-2

Nicolas Calcagni a,\*, Anne-Gaëlle Venier b, Raymond Nasso c, Georges Boudin b, Bruno Jarrige c, Pierre Parneix b, Bruno Quintard d

Received 10 December 2021; received in revised form 18 August 2022; accepted 18 August 2022 Available online 29 August 2022



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- 20 HCPs (4 regions including 2 overseas, 2021):
  - 13 individual interviews, 7 grouped interviews,
  - 4 16 caregivers, 4 administrative managers,
- Interview grid to identify barriers and facilitators





- 'Let us talk about the risk of infection related to respiratory germs and viruses in a healthcare setting.'
- Objective: not to assess your knowledge but to better understand what this means to you and understand your needs. All your answers will be the right answers.
- We are going to talk about respiratory hygiene. What are the first three words that come spontaneously to your mind when respiratory is evoked?



- 1. More precisely, what is respiratory hygiene, what does it imply?
- ◆ 2. How important are respiratory infections in your practice? Do you feel concerned by this issue? How do you see yourself regarding this matter?
- 3. In your opinion, what can be done in your practice to fight against respiratory infections? For yourself, for patients, for both?





**HCPs** representations

• 4. Do you manage to implement what you want to do, and the way you want it to be, to fight against respiratory infections? Yes, No? Why?

Importance of the follow-up: detail of what has been done, description of problems, exploration of obstacles and brakes, exploration of levers, projections for the future.





**HCPs representations** 

• 5. With COVID-19, face masking has become widespread. At this time, when do you wear a mask in your practice and for what purpose?

◆ 6. Is there a question I forgot to ask you that would allow me to better understand your vision on this subject? Would you like to spontaneously add something on the matter?





#### **HCPs** representations

Infection, Disease & Health 28 (2023) 54-63

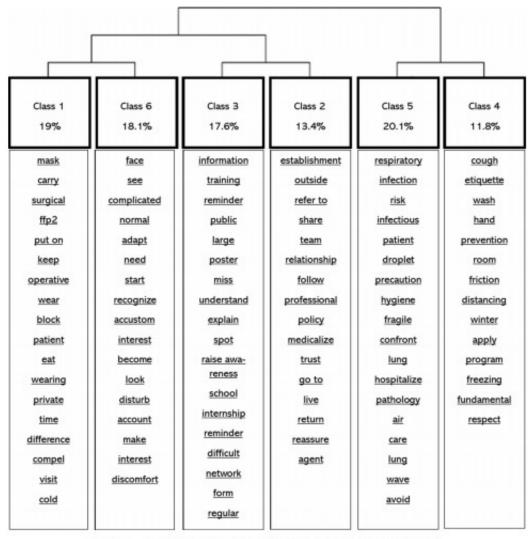


Figure 1 Dendrogram of the descending hierarchical classification (DHC).





Table 1. Classes of discourse elaborated by DHA classification

Classes	Most associated words	Theme	Representative verbatim
Class 1 (19%)	Mask, door, surgical, ffp2, put on, keep, operative, wear, block, patient, force, visit, cold	Action of wearing masks	'We wear a surgical mask all the time when we are in the patients' rooms, but the FFP2 for us is compulsory for everything that is endoscopies and in particular upper digestive endoscopies, so fibroscopies and so on.'
Class 6 (18.1%)	Face, see, complicated, normal, adapt, need, start, recognize, accustom, interest, uncomfortable	Difficulties of wearing face mask	'Because even in normal times we have trouble making ourselves understood and there, it's true that with the masks people can't see our faces so there is more difficulty in communication and understanding, that's for sure.'





Table 1. Classes of discourse elaborated by DHA classification

Classes	Most associated words	Theme	Representative verbatim
Class 3 (17.6%)	Information, training, reminder, public, poster, miss, understand, explain, spot, raise awareness, school, course, stings, difficult, network	Communication needs about respiratory infections	"If you don't have good hand hygiene, it won't work either. What really strikes me is the lack of information to the general public."
Class 2 (13.4%)	Establishment, outside, refer, share, team, relationship, follow, professional, policy, medicalize, trust, reassure, agent	Information and experience sharing between HCPs	'On the other hand, what I think could be interesting is to have shared time with hygienists from outside the establishment. I think it would be interesting to have shared feedback, in-house training on hand hygiene.'





#### **HCPs representations**

Table 1. Classes of discourse elaborated by DHA classification

Classes	Most associated words	Theme	Representative verbatim
Class 5 (20.1%)	Respiratory, infection, risk, infectious, patient, droplets, precaution, hygiene, fragile, confront, pulmonary, hospital, pathology, air, care, lung, wave, avoid	Characteristics of respiratory infections	"in the implementation of measures, but that yes, we are concerned on a daily basis with the prevention of these respiratory infections. Simple barrier actions, that is, respecting social
Class 4 (11.8%)	cough, etiquette, wash, hand, prevention, room, friction, distancing, winter, apply, program, freeze, fundamental, respect	Preventions measures of respiratory infections and cough etiquette	distancing, wearing masks, uh, disinfecting surfaces, that's itand vaccination.'

Note. Underlined words: Most representative words for Class 4 were, originally in French, 'gestes' and 'barrières', translated as barriers measure. We chose to translate as 'cough etiquette', which is more truthful to an international translation.

Figure 1: Dendrogram of the Descending Hierarchical Classification (DHC)

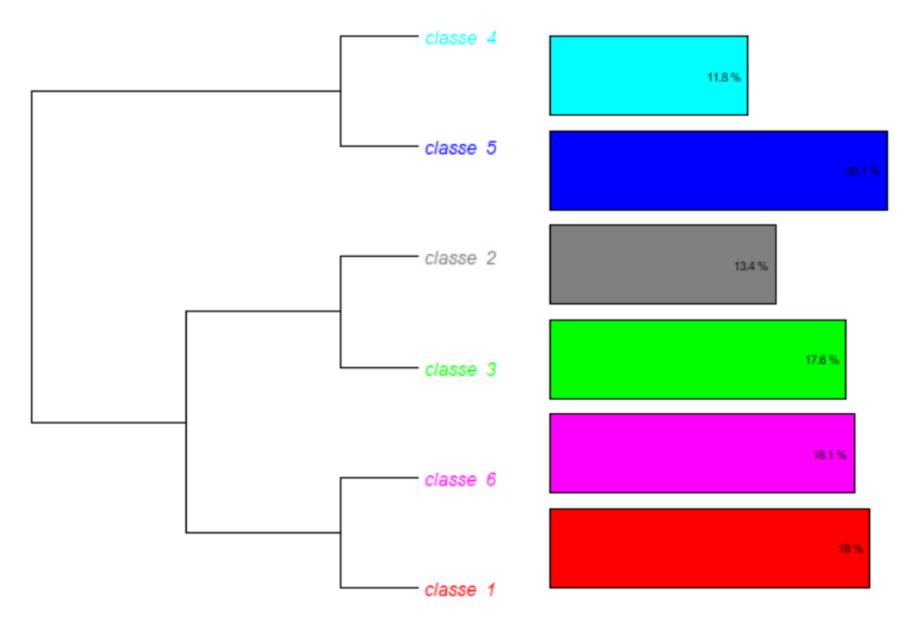




Table 1 List of barr	iers and facilitators of pr	evention on respirator	ry hygiene.
Categories	Sub-categories	Content	Sample verbatim
Face mask-related barriers	Physical and comfort constraints	Mask-wearing fatigue	—'So, I must admit that I'm getting tired of it! I've been wearing it all the time for more than a year, I've never been working from home like others! So, it's all the time'
		Discomfort	—'The FFP2 is very uncomfortable, necessary but very uncomfortable. And beyond that I had quite a few colleagues who had problems dermatology-wise. Also, breathing problems, I think of an agent who can't stand and suffocates in fact, with the FFP2'
		<ul> <li>Difficulty of following instructions</li> </ul>	—"And the FFP2, knowing that you must wear it for at least 4 h and especially not to take it off, it induces dehydration because inevitably you don't take it off to drink, you only take it off to eat, so you really have to calculate your break. So, it's not practical in terms of time management."
		<ul> <li>Poor quality of mask</li> </ul>	—"At the moment you can find on the market surgical masks that are cheap and not of good quality, some fabric which does not allow a good air passage."





Table 1 List of barr	Table 1 List of barriers and facilitators of prevention on respiratory hygiene.			
Categories	Sub-categories	Content	Sample verbatim	
Face mask-related barriers	Relational barriers	<ul> <li>Barrier to visual identification and non-verbal communication</li> </ul>	—"We are supposed to be in the care, and the care can be mediated via a look, a smile, and all that is slowed down by the wearing of the mask where in fact as I told you we all look alike, and in the identification of the caregiver by the patient it seems complicated to me."	
		Barrier to caregiver communication	—"What I find complicated is that I have old people who do not hear very well, it is true that there we see that the mask contributes even more to bad understanding."	





Table 1	List of barriers and facilitators of	prevention on respiratory hygiene.
I UDIC I	List of barriers and racintators of	prevention on respiratory mysicine.

Categories	Sub-categories	Content	Sample verbatim
Organizational barriers	N/A	<ul> <li>Caregiver not involved in decisions</li> </ul>	—"Protocols are written But not necessarily by uh by the carers, and even if sometimes we have We're caregivers, and we don't necessarily have a say, we're not asked for our opinion, even though we're the ones in the battlefield."
		Workload	—"We systematically disinfect all the tables after each, so it takes time between each patient, and it costs a lot."
		Lack of equipment	—"And with the covid, we found ourselves without any material, so we kept the information by saying be careful, you have to put on a surgical mask, be careful with personal contact, etc. You can do whatever you want if you don't have the equipment behind it, it's useless."
		Budgetary barriers	—"Yeah, that and all the equipment, each person uses the equipment and disinfects what they touch, that's a lot of products. It's not insurmountable but it's a lot. Add to that the masks that we're paying for!"
		<ul> <li>Unsuitable workplace</li> </ul>	—"Well, being in an institution that is a bit old, no because we are not sure about the maintenance of the ventilation system"



#### **HCPs representations**

Table 1 List of barri	Table 1 List of barriers and facilitators of prevention on respiratory hygiene.			
Categories	Sub-categories	Content	Sample verbatim	
Prevention-related barriers	Substance	<ul> <li>Complexity of information and protocols</li> </ul>	—"About the protocols the sequence of what you have to take off or put on before entering the room of someone who is isolated, do you have to put on the cap first, then the gown, then the gloves? It was at first difficult, a lot of information to input."  (continued on next page)	
		<ul> <li>Inconsistencies, contradictions and instability of information</li> </ul>	—"'Well, what was harder to understand was a bit All the inconsistencies All the inconsistencies of government decisions that have been taken. The closing of certain public places and then, on the other hand, the metro is packed, that sort of thing."	
	Form	• Irrelevant media	—"'I'm not sure whether we should go back to paper media or television media, perhaps more educative means would seem more effective to me."	
		<ul> <li>Counterproductive overload</li> </ul>	—"The problem is that when you post too many documents, and they change all the time, people don't read them anymore. That's the problem, there's so much prevention around so many things that after a while people get drowned."	
		<ul> <li>Not enough reminders</li> </ul>	—"Often when there are awareness campaigns, they are just for a while. The problem is that information is lost over time and repetition is necessary to ensure that the information is continuous."	

https://www.sciencedirect.com/journal/infection-prevention-in-practice/articles-in-press



#### **HCPs representations**

sick."

the time.

—'I think it was well done but caught up in the

and therefore have gestures that are not very

movement and in the rush, I think there are things that escape us or that we haven't thought about at the time. We can do things quickly, half-heartedly,

effective. It's difficult to think about everything all

Table 1 List of barri	ers and facilitators of pro	evention on respiratory I	hygiene.
Categories	Sub-categories	Content	Sample verbatim
Individual-related barriers	N/A	Patients in refusal or resistance	—"And then you have people who are really, we hear it more or less in the media, there are people who are anti-mask. A lady who told me that if I forced her to put on the mask, she wouldn't come to the consultation."
		Unawareness and underestimation	—"After all, in prevention, it's not always because you have the knowledge that you're going to apply your barrier measures. It's more a matter of the person controlling himself. Again, it depends on beliefs. Some people will think that it's not serious, it won't be fatal. So much the worse if you are a bit

Partial observance

or knowledge





Categories	Sub-categories	Content	Sample verbatim
Communicative facilitators	Giving information	• Educate and inform	—'Perhaps rethinking the training of professionals in terms of prevention and the prevention message they should have, in their care.'
		Persuade and demonstrate	—'I don't know if it has much to do with respirator infections, but you know there's a little game when you have to wash your hands It's a little machin where you put your hands in a Petri before hydroalcoholic solution and after. It highlights germs. Well, I invested in one, and I think it's great because you can have the families, the residents, the doctors I don't know, for respiratory infections, shouldn't we create a system?
	Facilitating information	<ul> <li>Suitable media</li> <li>Clarify information</li> </ul>	—'We should make educational films in fact, or ever serious game, they tend to be fun and appealing' —'You have to give an intelligible, simple and intelligible message to the people. The acceptability of all constraints comes from understanding why and so you must explain in an intelligible way to the population and explain to them why they have to dit. If they don't know why they won't do it.'
		<ul> <li>Repeat and recall information</li> </ul>	—'In fact, use all possible communication channels i.e. flash messages in waiting rooms, television spots, radio messages, and in fact above all its repetition, because often when there are awarenes campaigns, they are just for a short time'



Table 1 List of barriers and facilitators of prevention on respiratory hygiene.						
Categories	Sub-categories	Content	Sample verbatim			
Communicative facilitators		• Target the right places	—'And then it's training in workshops in places that the general public goes to. And today, in certain sectors, I can hardly see that the only places that could lend themselves to this kind of thing are the supermarkets. It has to be enclosed and conducive to dissemination. Because we are going to reach the whole population, from the youngest to the oldest. I think that the places where people buy basic necessities are the places where we should put the emphasis in terms of prevention.'			
		<ul> <li>Prioritize and adapt information</li> </ul>	—'And that it be explained by people is above all that, in fact, that it is explicit and that we can do it with people. Like all trades, companionship is still a very good key in this world You have to clearly prioritize what you have to tell them and therefore individualize the message.'			





Table 1	1	List of	barriers and	facilitators of	prevention on	respiratory hygiene.

Categories	Sub-categories	Content	Sample verbatim
Organizational facilitators	N/A	<ul> <li>Support from health authorities</li> </ul>	—'It was a real boost, but also a great relief for the teams to realize that the protocols or the accompaniments we had put in place were validated by higher authorities.'
		<ul> <li>Involve teams of HCPs</li> <li>Communication and feedback between HCPs</li> </ul>	—'Feedback, shared feedback, working groups between professionals, I think it's interesting.' —'It's putting everyone in the loop, i.e. on all floors at all levels, orderlies, nurses, doctors To get together to talk about it, to develop protocols together.'
		<ul> <li>More financial and material resources</li> </ul>	—'Well, we need material, that was the big problem last year, when we don't have material, when we order, we annoy our director who tells us, 'Well yes, but I do what I can'.





**HCPs representations** 

# 1. Respiratory hygiene:

- A concept mainly approached from the point of view of professional practices,
- Participants emphasize the goal of protecting their patients first, then only their own health, which seems coherent in view of their professional objectives,
- Respiratory hygiene is not understood by all the people in our sample, which reflects that the concept of respiratory hygiene is not yet known to all of the health professionals,
- Variation of representations depending on the sector, but not necessarily the field of activity.



**HCPs representations** 

## 2. Representations on respiratory infections:

- The opinions of caregivers on respiratory infections, divided between a strong sense of involvement, a moderate frequency of confrontation and a low perceived severity of infections. These discrepancies can be explained,
- Respiratory infections are addressed by caregivers both through "clinical indices" (volume of patients, symptomatology, etc.) and more "biological" aspects evoking the various pathogenic microorganisms, the various infections and their transmission.



- 3. Measures favored by caregivers in order to fight against respiratory infections:
  - Wearing a mask and hand hygiene remain preferred measures by caregivers in the fight against respiratory infections, regardless of the sector or field of activity,
  - A significant role of health education in the fight against respiratory infections, which underlines the importance of the role of health professionals in fulfilling this function,





- 3. Measures favored by caregivers in order to fight against respiratory infections:
  - The other measures concern: cleaning of equipment, vaccination, isolation of patients or residents, certain hospital protocols, barrier gestures, covid tests, ventilation of spaces and monitoring of agents.





- 4. Main obstacles to the implementation of measures to combat respiratory infections:
  - Difficulties mainly related to structural and organizational constraints or relating to patients,
  - A mask deemed quite uncomfortable and impractical, but which above all poses relational problems (understanding and recognition of interlocutors) between caregivers and patients,





- 4. Main obstacles to the implementation of measures to combat respiratory infections:
  - In terms of the difficulties encountered in raising awareness, the multiplicity of sometimes contradictory information, as well as the fact of having to constantly readapt seems to constitute the major problem for caregivers,
  - Awareness that is done over a short time and not repeated. Raising awareness sometimes overloaded with information.





- 5. Main levers for the implementation of measures to combat respiratory infections:
  - Willingness to continue to take certain measures adopted during the crisis (especially hand washing and wearing a mask, etc.),
  - Few suggestions on the content itself, but many on the methods and media through which awareness-raising should be done,
  - A need to multiply awareness-raising materials as well as the frequency with which they are presented,





- 5. Main levers for the implementation of measures to combat respiratory infections:
  - A feeling of being supported through sensitizations,
  - Hand hygiene and wearing a mask remain the essential points on which to insist according to the participants,
  - Communication that must be and remain clear and consistent,
  - A desire to relay prevention and health education,
  - A strong link between health authorities and health professionals.



### **HCPs representations**

#### **Respiratory infections**

Not severe not frequent (excepted COVID)

#### **Barriers**

Physiopathology Mask discomfort Communication with the patient

#### **Needs**

Reminders
Simple and practical messages
self-evaluation, tools















## OPÉRATION RÉF PRÉVENTION



### ections

## Contre les infections respiratoires, jouons collectif!

10 messages à retenir pour prévenir les infections respiratoires en toutes circonstances!

- En cas de symptômes d'infection respiratoire, le port du masque est essentiel pour protéger son entourage.
- Un masque mouillé, souillé ou déjà porté doit être changé.
  - Pour éviter les contaminations, un masque et un mouchoir usagé ne doivent pas être réutilisés.
- Pour prévenir efficacement les infections respiratoires, il convient de tousser ou éternuer dans son coude ou dans un mouchoir.
  - Pour préserver l'environnement, un mouchoir ou un masque usagés doivent être jetés dans les poubelles appropriées.
- L'hygiène des mains est indissociable du port du masque.
  - Dans le cadre d'une bonne hygiène des mains, une politique zéro bijou lors de soins est essentielle.
- Lors de symptômes d'infection respiratoire, il faut éviter de fréquenter les personnes vulnérables.
- L'organisation de campagnes de vaccination et l'exemplarité du personnel sont un + dans la prévention des infections respiratoires.
- L'anticipation de la disponibilité des produits (solution hydro-alcoolique, équipements de protection individuelle) permet de prévenir les épidémies.









- 10 messages to remember to prevent respiratory infections in all circumstances!
  - In case of symptoms of respiratory infection, wearing a mask is essential to protect those around you,
  - A wet, soiled or previously worn mask must be changed,
  - To avoid contamination, a mask and a used handkerchief should not be reused,
  - 4. To effectively prevent respiratory infections, it is advisable cough or sneeze into your elbow or a tissue,



- 10 messages to remember to prevent respiratory infections in all circumstances!
  - To preserve the environment, a handkerchief or a mask users must be thrown in the appropriate bins,
  - 6. Hand hygiene is inseparable from wearing a mask,
  - 7. As part of good hand hygiene, a zero jewelry policy during care is essential,
  - When experiencing symptoms of respiratory infection, avoid associate with vulnerable people,





- 10 messages to remember to prevent respiratory infections in all circumstances!
  - The organization of vaccination campaigns and the exemplary nature of the staff are a plus in the prevention of respiratory infections,
  - 10. Anticipating the availability of products (hydroalcoholic solution, personal protective equipment) helps prevent epidemics,





## MARION

ntion

INFIRMIÈRE EN STRUCTURE DE SANTÉ



OPÉRATION PRÉVENTION



	www.webbertraining.com/schedulep1.php
April 12, 2023	(South Pacific Teleclass)  UNINTENDED CONCEQUENCES OF INFECTION PREVENTION AND CONTROL  MEASURES DURING THE COVID-19 PANDEMIC  Speaker: Dr. Moi-Lin Ling, SingHealth, Singapore
April 20, 2023	HOSPITAL WASTEWATER SYSTEMS: ORIGINS OF NOVEL NOSOCOMIAL BACTERIA Speaker: Professor Colum Dunne, School of Medicine, University of Limerick, Ireland
April 27, 2023	THE FUNGUS AMONG US: THE EMERGENCE OF A HIGHLY RESISTANT FUNGUS IN THE HEALTHCARE SYSTEM Speaker: Dr. Tom Chiller, Centers for Disease Control, Atlanta
May 5, 2023	(FREE Teleclass) SPECIAL LECTURE FOR 5 MAY Speaker: Prof. Didier Pittet, University of Geneva, Switzerland
May 9, 2023	(European Teleclass) THE IMPACT OF DISINFECTANTS ON ANTIMICROBIAL RESISTANCE AND THE RESISTOME Speaker: Prof. Shaheen Mehtar, Stellenbosch University, Cape Town
May 18, 2023	NON-CATHETER-ASSOCIATED URINARY TRACT INFECTIONS  Speaker: Cindy Hou, Jefferson Health, New Jersey
May 29, 2023	(FREE Teleclass Broadcast live from the IPAC Canada conference)  THE PSYCHOLOGY OF PANDEMICS  Speaker: Dr. Steven Taylor, University of British Columbia

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