

HYGIENE – CAN A TOOL FROM OUR PAST HELP SAVE THE FUTURE?

By: Lars Münter, Sally Bloomfield, Denis Bourgeois, Solveig Langsrud, Anders Miki Bojesen, Kristine Sørensen and Milka Sokolović

> #EHFG2021 – SESSION 20:

Hygiene literacy: key to a safer future?
Battling fear, myths, infections & AMR

Lars Münter is Administrative Director, Danish Council for Better Hygiene and Head of International Projects Unit, Danish Committee for Health Education, Copenhagen, Denmark; **Milka Sokolović** is Director General of the European Public Health Alliance, Brussels, Belgium; **Denis Bourgeois** is Professor at Department of Public Health at the Faculty of Dentistry, University Lyon, France; **Sally Bloomfield** is Chairman of IFH Home Hygiene and Honorary Professor, London School of Hygiene and Tropical Medicine, London, UK; **Solveig Langsrud** is Project Lead for H2020 SafeConsume and Senior Scientist, Norwegian Food Research Institute, Ås, Norway; **Anders Miki Bojesen** is Chairman of the Danish Council for Better Hygiene and Professor Veterinary Clinical Microbiology, University of Copenhagen, Denmark; **Kristine Sørensen** is Founder of Global Health Literacy Academy and President of International Health Literacy Association, Aarhus, Denmark. Email: munter@sundkom.dk

Summary: Infectious diseases will continue to disrupt modern societies if we do not establish better hygiene literacy to enable a systems approach to hygienical design and planning, wider population access to and uptake of practices, and a strategically better use of cleaning and hygiene as trusted methods to reduce infections. The article introduces the concept of hygiene literacy and outlines how this concept is linked to policies for public health, urban planning, education, research, data collection, and more. Further, it outlines how such a new strategy for Europe could help address infections and epidemics.

Keywords: *Hygiene, Hygiene Literacy, Infection Control, Public Health Promotion*

A new holistic approach towards health and safety

Our modern societies were surprised and disrupted by SARS-CoV-2 in 2020. The world had forgotten how quickly infectious diseases can spread. Despite being warned every year by the flu season and by gastro-enteritis season, we have been too complacent. Seasonal flu alone, as estimated by the World Health Organization (WHO) Regional Office for Europe, kills 72,000 Europeans every year.¹ While we assumed people would understand how to break the chain of infections, basic tools like soap, handwashing, respiratory etiquette, oral care, or the understanding of risk reduction have remained under-researched and under-invested in for decades.

While some took pride in our modern, clean industrial world, we had somehow

collectively missed that it actually wasn't all that hygienically safe, that our pandemic preparedness was low, and our collective or individual health literacy rarely covered this specific topic. In addition, the European Health Literacy Survey showed that an average of 47% of respondents had limited health literacy and the proportion varied greatly among European countries (i.e. 29% in Netherlands compared to 56% in Austria).² All of these issues combined led us into a challenging situation of being ill prepared and with very different, but always limited, capacity to act in each country and community.

But better late than never. Following the devastating pandemic and decades of flu, a new improved and implemented strategy for hygiene literacy could become key for a safer Europe. It could also be important to tackle a series of major challenges to

our health, such as antibiotic resistance and chronic conditions with an infectious onset, it could offset the rising costs of health care, and it could pave a road to an empowered, self-caring public. This article explains what is covered by the term hygiene (see Box 1) and the concept of hygiene literacy – and what such a strategy for Europe would look like.

“access to hygiene facilities is still a challenge in public spaces”

The European history of hygiene has not been straightforward

While the etymology of the word hygiene hails from the ancient Greeks, and was certainly historically also glorified in the Romans' baths, the idea of good hygiene has faced challenges throughout European history. The experience of devastating pandemics could have created a healthy respect and understanding of the value of infection-preventing practices, but the teaching and implementation of hygiene has often been ignored or underinvested in, until an epidemic or another health crisis made it vital.

We can point, for example, to the value of sewer systems in modern cities, that have saved countless lives since the 1840–1850s (and indeed increased comfort), but which were originally debated and contested by some politicians and pundits at the time as expensive, unnecessary, and with little proof of effect.² The heated debate in early 2020 regarding the implementation of hygiene interventions in public spaces stands as a symbol of the horizon that remains to be reached.

Do we have access?

In 2021, access to hygiene facilities is still a challenge in public spaces of our urban environments, with several European cities for example reducing

access to public toilets at the beginning of the COVID-19 pandemic. Amidst public lockdowns, it became obvious that too few urban planners or transport designers had thought of or found good solutions for the microbiological challenges of many people sharing public spaces. Across Europe, school children still struggle with access to decent hand hygiene and toilet facilities in 2021; this is in part, because our scientific understanding of hygiene has not been fully used or implemented into our design and planning processes, as other issues have taken priority.

One might argue that the issue of infectious diseases could be solved by better organisation and pandemic preparedness, but that would be missing the point. To realise the potential of safety that better hygienical design could provide, our cities and communities must integrate innovative features in the basic designs, plans, and cultures of our societies.

This could be smart surfaces, adaptive signage or lighting related to number of users, gamification, data gathering from water or drains. Or it could be entrance doors that only open if hand hygiene is performed first. Indeed, all the areas of society we've seen affected by the pandemic (which practically mean “all”) are essential to reconsider in this; these infectious diseases spread because we have designed our systems and cultures in a way that doesn't stop or even enables infections to spread.

While we have for decades normalised seasonal flu in our collective understanding of modern life, the societal costs of flu and other infectious diseases were crippling our economy and society long before the pandemic. Therefore, hygiene design evolution is long overdue.

Hygiene literacy

However, getting the public to practice effective hygiene is not just about teaching people compliance, it is about building hygiene literacy. This means also building an understanding of hygiene and healthy behaviour that prepares individuals and communities to meet the wide range

Box 1: A definition of hygiene

When used in the context of the 2021 report from the International Scientific Forum on Home Hygiene (IFH),³ the term “hygiene” refers solely to practices aimed at promoting good health by breaking the chain of infection. We realise that a much broader definition is often used, e.g. The Oxford English Dictionary defines hygiene as “practices through which people maintain or promote good health” and thus includes oral and personal hygiene, and health issues such as obesity, alcohol abuse etc. It can also include air quality and general cleanliness (absence of dirt, tidiness and living in a clean-looking environment) which is regarded as conferring a health benefit, by promoting a feeling of wellbeing.

of challenges to prevent the spread of infection in both private and public settings.

Ensuring good design and basic access is only part of the challenge. Individual hygiene literacy, understanding the chain of infection and the role of self-care of the individual, are equally vital. It brings about a culture of creating a safer balance with our surrounding microbiota, which is a lifelong task, not a battle to be won occasionally.

Disinfection, distancing, face masks, vaccination, ventilation, cleaning etc, but also the use of antibiotics, are the fundamental tools that are used to prevent spread (and treat) infectious diseases. The aim is not to live in a “clean” world or to “beat the bugs”, as it is often phrased in the media. The aim of hygiene literacy is to help us all navigate a balance of avoiding the potential damages caused by pathogens, while harvesting the benefits of vital, helpful microorganisms. For without our microbial world, humans cannot exist.

Hygiene literacy implies understanding and applying the basic principles of infections and their immediate symptoms,

and effects of the tools that can break these chains. This entails basic building blocks from understanding the critical relationships between higher organisms and microorganisms, to grasping the chain-breaking role of water and soap, of distancing and quarantine, of facemasks and body-protection, of antibiotics and vaccines.

However, simply defining the concept will not make a difference to the health of Europeans. What we need is an equitable and comprehensive implementation of hygiene literacy in policies for education, innovation (e.g. data, surfaces, design), research, city planning, cleaning services, and obviously health promotion.

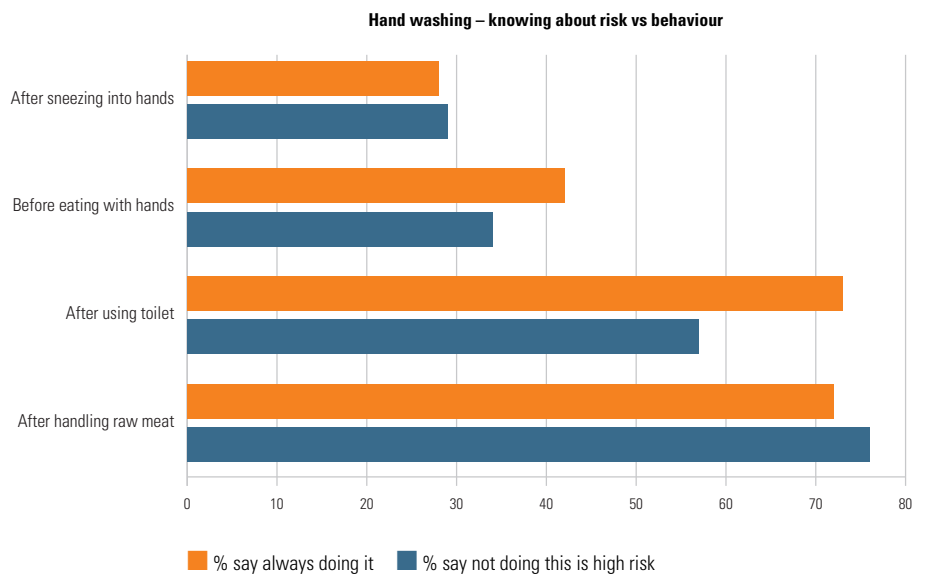
Social inequality in hygiene

While training and education policies are extremely vital to train in the actual practice of hygiene, the transformation of our physical spaces and use of them is even more profound.

Using hygiene literacy also requires planners and designers to better understand the epidemiology of infectious diseases, as well as the tools needed to break such infections. Poor access to hand wash facilities or toilets in disadvantaged communities mean less hand washing because of poor access. In principle, one would need people with poor access to have even higher hygiene literacy to maintain the same level of effort. Indeed the 2015 European Health Literacy Survey¹⁰ also noted the social gradient of health literacy and thus hygiene literacy too.

In the pandemic, we've seen communities with higher rates of infection, but often failed to realise that factors like overcrowded housing, poor air quality, and poor access to hand wash facilities, including access to water and soap or disinfecting products, make it disproportionately harder for these communities to keep infection rates low. As mentioned above, urban planning policies on quality and service of public toilets¹¹ can and will disproportionately affect vulnerable communities and groups, that will consequently suffer

Figure 1: Risk behaviour – knowledge-gap



Source: ¹⁰

greater numbers of infections, increasing the need for better hygiene – in short, a vicious cycle.

This means that vulnerable communities should be cared for. That we should take social inequalities into account when addressing the challenges of hygiene literacy. But it would be wrong to suggest that challenges of hygiene are only about social inequality – indeed a successful hygiene intervention in a Danish factory reported how “white collar workers” were much harder to convince about the need for better hygiene practices and thus to change behaviour than other groups of employees.¹²

Are basic health tools – like hygiene – too basic for health policies?

While our understanding of the importance of health literacy is on the rise, and is being increasingly promoted by the WHO¹³ and other leading institutions, hygiene literacy still remains low and its impacts understudied. At a time of enormous amounts of conflicting information, the seemingly straightforward task of aligning people's behaviour around simple hygiene measures becomes too difficult and seems to add to confusion.

People do know, for instance, that hand hygiene or oral hygiene are deemed by society as “good behaviours”, but there is a huge knowledge-do gap between this positive societal value and its practical application (see Figure 1). One sad proof is our repeated inability to effectively implement good hygiene practices during the pandemic.

Constantly being urged by public health professionals was not enough to make up for a significant gap in people's connection between the “why” and the “how”. Sadly, we were aware of this gap long before the pandemic – the annual epidemics of flu, rotavirus, or norovirus have consistently tested the performance of our health systems and hasn't engendered changes to cultural practices.

Another important reason we need hygiene literacy is due to the rising levels of antimicrobial resistance (AMR), adding to the importance of public health measures.¹⁴ This also calls for putting prevention at the heart of public health policy, as the European Public Health Alliance (EPHA) and their partners in the AMR Stakeholder Network have proposed to the European Commission in their Roadmap for Action on AMR.¹⁵

The COVID-19 pandemic has underscored the fact that our current hygiene practices

are not “fit for purpose” and that our standard practices of learning about hygiene should be improved.

A connected strategy of learning and education

In a post-pandemic strategy, a better approach to hygiene literacy should be a cornerstone of educational practices, not just in kindergartens and schools, but also in vocational training and workplaces.

It includes a connected strategy of teaching and implementing practices that include aspects of:

- Oral health – from practices of dental and interdental brushing, to self-care support by education and health care professionals;
- Food safety and kitchen skills in all life stages – from prepping and cooking, to cooling, storing and avoiding cross-contamination;
- Hand hygiene – including where, when and how it should be performed;
- Cleaning and disinfection – including basic knowledge of detergents (also for laundry) and appropriate use of chemicals;
- Antibiotics and vaccination – including when and why to use them.

Building hygiene literacy for European citizens will not be a quick fix, but it will enable a culture of self-care that could radically improve their safety, wellbeing, and quality of life. It will significantly reduce the amount of confusion about when, why and how the hygiene measures should be taken, and with it a very significant reduction of infectious diseases incidence.

Challenges ahead – understanding risk

This would still leave plenty of microbes to share and simple infections to occur. Hygiene measures are not a 100% effective panacea against all infections, but are a powerful tool to contribute to reducing the burden of disease, working alongside other tools. We would still have plenty of opportunities to have our immune systems tested and trained.

Another element of health and hygiene literacy is understanding risk. In most situations, our activities come with risk, and understanding it is extremely important to use resources with insight, while avoid harm. While we need a strategy for hygiene literacy that teach its concepts, values, and practices, it also needs to involve the concepts of risk and hazard.

All our activities, from shopping and using public transport, to having a party with friends, involve hazard (potential to cause harm), but not all of them come with the same risk (the likelihood of the harm to take place).

“using a targeted approach to hygiene based on risk management

Sometimes, our understanding of risk and hazard translates into design: while the risk of a meteor hitting the planet does not merit any immediate action, the risk of a car accident is enough to design a seat belt. While we currently have a lot of information and understanding of the increased risk infections cause for our health, we should pay extra attention post-pandemic. The flu, antibiotic resistance, and other challenges remain important to tackle ever better.

Risk has historically been a tricky concept to teach, but is vital to improve the practice of hygiene measures. We must be better at acting to avoid known risks in relation to infectious diseases in the same way that we’ve (slowly) learned to do with fire safety, air safety, or car safety. We must have the persistence and courage to support the implementation of these practices without waiting for new disasters to strike.

Determined public health heroes like John Snow, Florence Nightingale, or Ignaz Semmelweis were not initially supported and applauded. Infection prevention professionals face the same challenge today in their fight for safety, repeatedly facing uphill battles to convince people and change systems.

Demanding “proof to act” is a very good concept, but in assessing risk and safety issues we normally rely much more on research. We do research on crash tests. We calculate likely benefits from better materials. We measure air quality to assess the risk of cancer or asthma, instead of waiting for symptoms to appear. Navigating risk by using a targeted approach to hygiene based on risk management must become a compass arrow on our journey to build a safer, healthier post-pandemic Europe.

The way forward?

There are already a number of proposals for the way forward in policy papers like the recent IFH white paper which sets out the principles of a targeted approach to hygiene,⁹ the SafeConsume analysis on food safety communication,¹⁰ or the EPHA initiatives for better public health policies in the AMR Roadmap.⁹ Educational initiatives like the e-bug initiative (www.e-bug.eu, that started in 2009, originally funded by the European Union, operating in 27 European countries to help all children leave school with an understanding of AMR and the role of hygiene) or campaign initiatives like the international Hygiene Week across the Nordics or the European Self-Care Week have also been used to leverage individual awareness with organisational transformation.

But a more fundamental effort is required. In our post-pandemic health (promotion) policies and initiatives, we need to fully recognise that health literacy, and hygiene literacy, needs a new coalition between our education and health care sectors. It needs a new coalition between the medical and social sciences, communications, and design. We must ensure that we include and invest in citizens and their knowledge and behaviour as a valuable, capable asset on our way to better health.

While “Health in All Policies”¹² has been a focus point since 2006, the need for inclusive and holistic approaches have also been part of the Sustainable Development Goals 2015 – hoping for action by 2030, but the decade of action has had a rough start. We hope that new policies in Europe from 2022 will start by building health literacy from the ground up and with a focus on citizens and communities; and thus reach some of these very important goals. Working for better hygiene would be a good place to start.

References

- 1 WHO/Europe. Influenza – estimating the burden of disease, 2020. Available at: <https://www.euro.who.int/en/health-topics/communicable-diseases/influenza/seasonal-influenza/burden-of-influenza>
- 2 Sorensen K, Pelikan JM, Röthlin F, et al. Health literacy in Europe: comparative results of the European health literacy survey (HLS-EU). *Eur J of Public Health* 2015;25(6):1053–8. Available at: <https://pubmed.ncbi.nlm.nih.gov/25843827/>
- 3 International Scientific Forum on Home Hygiene (IFH). Developing and promoting hygiene in home and everyday life to meet 21st Century needs. *A report commissioned by the International Scientific Forum on Home Hygiene*, 2021. Available at: <https://www.ifh-homehygiene.org/review/developing-and-promoting-home-and-everyday-life-hygiene-meet-21st-century-needs>
- 4 Iversen L. *Battle for Life* (“Kampen for Liv”). SDU, 2018.
- 5 Royal Society for Public Health. *Taking the P****, 2018. Available at: <https://www.rsph.org.uk/our-work/policy/healthy-places/taking-the-p.html>
- 6 Clean Hands and Less Sick Leave (“Rene hænder og færre sygedage”). *Magasinet Arbejds miljø*, February 2009.
- 7 Kickbusch I, Pelikan JM, Apfel F, Tsouros AD (ed.) *Health literacy. The solid facts*, 2013. Available at: <https://www.euro.who.int/en/publications/abstracts/health-literacy-the-solid-facts>
- 8 Maillard J-Y, Bloomfield S. Reducing antibiotic prescribing and addressing the global problem of antibiotic resistance by targeted hygiene in the home and everyday life settings. *American Journal of Infection Control* 2020;48:1090–9. Available at: [https://www.ajicjournal.org/article/S0196-6553\(20\)30209-1/fulltext](https://www.ajicjournal.org/article/S0196-6553(20)30209-1/fulltext)
- 9 EPHA. Roadmap for action on antimicrobial resistance – 5 key strategies to tackle the global health threat. *Report from The Stakeholder Network on Antimicrobial Resistance (AMR)*. Updated, 2021. Available at: <https://epha.org/wp-content/uploads/2021/08/amr-roadmap-updated0821.pdf>
- 10 Bloomfield SF. RSPH and IFH call for a clean-up of public understanding. *Perspectives in Public Health* 2019;139(6). Available at: <https://doi.org/10.1177/1757913919878367>
- 11 SafeConsume. *Best practices related to food safety communication*. Policy Report, 2020. Available at: <https://safeconsume.eu/articles/non-authority-initiatives-and-best-practices-related-to-food-safety-risk-communication>
- 12 PAHO. Health in all policies web page. Available at: https://www3.paho.org/hq/index.php?option=com_content&view=article&id=9361:2014-welcome-health-all-policies

What are patient navigators and how can they improve integration of care?

By: H Budde, GA Williams, G Scarpetti, M Kroezen, CB Maier

Published by: World Health Organization 2022 (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies)

Observatory Policy Brief 44

Number of pages: 30; **ISSN:** 1997-8073

Freely available for download at: <https://eurohealthobservatory.who.int/publications/i/what-are-patient-navigators-and-how-can-they-improve-integration-of-care>

Patient navigators support patients in finding their way through health and social care systems, helping them to overcome barriers to accessing services. In this new policy brief, the authors aim to inform policymakers about the roles performed by patient navigators in different countries; to show how the role can contribute to improving the integration of care; and to provide policy lessons for implementation. The authors show that existing patient navigator programmes typically focus on: cancer care; transitional care, where they help patients move between various settings (e.g. hospital and home) or

sectors (e.g. health and social care); and care for vulnerable and disadvantaged populations. Patient navigators come from different backgrounds and can be qualified health professionals, or trained lay persons, often recruited from the community that is being targeted.

Based on evidence from a systematic overview of reviews, the authors show patient navigator programmes are associated with positive outcomes in terms of increasing access to care, reducing waiting times for diagnosis and treatment, increased uptake of screening and improved coordination and continuity of care. Policymakers interested in introducing patient navigator programmes should consider macro-, meso- and micro-level factors, all of which will influence implementation. Key issues to address include: developing appropriate educational standards; securing support from key stakeholders; and putting in place long-term funding to ensure the sustainability of patient navigator programmes.

