

Promoting a family-centred approach to hygiene which delivers real health benefits.

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In the past 20 years or so, infectious disease has moved steadily back up the health agenda, prompting new emphasis on developing strategies for prevention and control. Increasingly this includes strategies to reduce the spread of infection within the family at home, and in their social and work lives outside the home. This has occurred for a number of reasons.

Across Europe, foodborne disease remain unacceptably high. WHO estimate that 40% of foodborne outbreaks occur in private homes. Other gut infections such as those caused by "norovirus" (commonly known as "winter vomiting disease") can circulate like wildfire from person-to-person via hands and other surfaces in the home unless good hygiene is practised. As antibiotic resistance continues to reduce our ability to treat infections, preventing spread of infections through hygiene practice becomes more important. Organisms such as MRSA and C.difficile are now seen as a problem in the community and home as well as hospitals. Hygiene can also reduce the spread of colds and flu germs; in the event of a flu pandemic, hygiene will be a first line of defence during the early critical period before vaccines and antiviral drugs become available. A further factor to consider is that, across Europe, up to 1 in 5 people living at home has impaired immunity to infection and

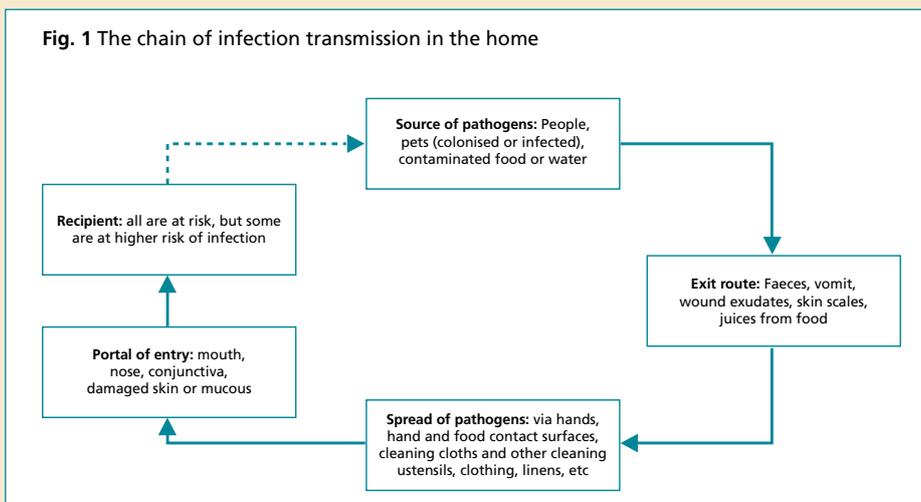
needs special care to protect them from infection. Although shorter hospital stays means reduced hospital costs, the gains are likely to be undermined by inadequate infection control at home.

In response to the need for an effective "science-based" approach to home hygiene, the International Scientific Forum on Home Hygiene has developed a risk management approach which has come to be known as "targeted hygiene". Targeted hygiene recognises that pathogens are introduced continually into the home by people, contaminated food and domestic animals. Good hygiene means interrupting the chain of events (see Figure 1) which is responsible for spreading infection from these sources to a new recipient by intervention at "critical control points". To identify these points, the chain of infection is broken down into its constituent parts and, for each site or surface, the frequency of occurrence of pathogenic contamination is assessed, together with the probability of transfer from that site. Even if a particular environmental site is highly contaminated, unless there is a high probability of transfer from that site, the risk of infection exposure is low.

Risk assessment suggests that "critical control points" in the home are the hands, together with hand contact surfaces, food contact surfaces, cleaning cloths and other cleaning utensils, which form the "superhighways" for spreading pathogens such that healthy family members become exposed. Clothing (particularly clothing in direct contact with the body) and household linens are also important control points, whilst good personal hygiene (bathing and showering) together with regular cleaning of baths, basins and shower surfaces further contribute to reducing spread of germs.



Fig. 1 The chain of infection transmission in the home



Targeted hygiene also means applying a suitable hygiene procedure at appropriate times to interrupt the chain of infection transmission. In many situations (e.g handwashing), a “hygienically clean” surface can be achieved by soap or detergent and water, but recent studies suggest that this process is only effective if accompanied with thorough rinsing. Wiping a door handle or a chopping board with a cloth will merely move organisms around the surface and onto the cloth and hands, and then transfer them to other surfaces. This means that in some situations we need to use a disinfectant/cleaner. To ensure elimination of pathogens, clothing and household linens should be laundered either at 60°C, or at 40°C using a bleach-containing laundry product.

The key to targeted hygiene is that it recognises that good hygiene is not a “once weekly deep down clean” to get rid of microbes, it needs to be an ongoing part of our daily lives where hygiene measures are targeted where and when necessary. Targeted hygiene also makes sense because it maximises protection against spread of infectious diseases, whilst minimising the impact on our human and natural environment.

In response to the changing hygiene climate, regional and national authorities are now beginning to invest in community-based hygiene promotion programmes. If these are to be successful however, a number of issues need to be addressed. Across Europe, public health is currently structured such that the separate aspects of hygiene (food hygiene, pandemic flu preparedness, patient empowerment etc) are dealt with by separate agencies. If things are to change there is a need for these agencies to work in partnership in order to promote an approach to hygiene which is family-centred rather than issue oriented. There is also a need for the public sector to work more closely with the private sector who make considerable investment in communicating with consumers about hygiene and hygiene products, in order to ensure that cleaning and disinfection products are formulated to the highest standards and are used in a manner which delivers real health benefits. In recent years, hygiene has had a somewhat negative image and has come to be seen as old-fashioned and disciplinarian. We need to make hygiene more appealing to the public by realigning it alongside positive attributes of health and well-being.

For more information on targeted hygiene, go to www.ifh-homehygiene.org