

# NATIONAL HAND HYGIENE CAMPAIGNS IN EUROPE, 2000-2009

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Hand hygiene represents the single most effective way to prevent healthcare-associated infections. The World Health Organization, as part of its First Global Patient Safety Challenge, recommends implementation of multi-faceted strategies to increase compliance with hand hygiene. A questionnaire was sent by the European Centre for Disease Prevention and Control to 30 European countries, regarding the availability and organisation of their national hand hygiene campaigns. All countries responded. Thirteen countries had organised at least one national campaign during the period 2000-2009 and three countries were in the process of organising

a national campaign. Although the remaining countries did not have a national campaign, several reported regional and local hand hygiene activities or educational resources on national websites.

### Introduction

Healthcare-associated infections (HCAI) are estimated to affect 1.4 million people worldwide, causing longer hospital stay, increasing hospital costs and excess mortality [1-3]. HCAI are preventable and hand hygiene has been shown to be the single most effective way to prevent cross-transmission of microorganisms and

protect patients from HCAI [4,5]. Compliance with hand hygiene amongst healthcare workers (HCW) has been demonstrated to be quite low, however and are estimated to be around 40% [6,7].

In 2005, the World Health Organization (WHO) introduced the First Global Patient Safety Challenge, 'Clean Care is Safer Care', as part of its World Alliance for Patient Safety, among other things emphasising the importance of hand hygiene. Ministries of Health from around the world pledge their support to take actions to reduce HCAI in their countries. One of the five elements of the challenge that each country promises to implement, is to develop campaigns or actions at a national or international level and to promote and improve hand hygiene amongst HCW [8,9].

Multimodal strategies have been shown to be more successful in improving rates of adherence with hand hygiene in HCW than single interventions, which rarely result in sustained improvement [10-12]. Targeted, multi-faceted approaches focusing on system change, administrative support, availability of alcohol-based hand rubs (ABHR), training and education of HCW, and reminders in the workplace are recommended strategies for improvement [3,13,14]. This report is an overview of the national hand hygiene campaigns, but also regional activities, implemented in Europe since 2000.

## Methods

On 6 March 2009 a questionnaire was sent via e-mail by the European Centre for Disease Prevention and Control (ECDC) to the national contacts for surveillance of HCAI of all 27 European Union Member States, as well as to Iceland, Liechtenstein and Norway. An e-mail reminder was sent on 20 March 2009. Our primary question was whether there had been any national hand hygiene campaigns in the country since 2000, but information was also collected on regional campaigns. Our queries were related to the availability of educational, training and media activities for HCW and patients, which types of supporting bodies were involved, and whether the campaign was evaluated and compliance was assessed.

## Results

All 30 countries responded to the questionnaire. Thirteen countries had had a national hand hygiene campaign during the period 2000-2009 and three additional countries were in the process of organising a national campaign in 2009. Ten countries did not report having had national campaigns, but had regional campaigns which included hospital-based activities. Only four countries reported no hand hygiene activities on a national or a

TABLE 1

Summary of campaign and educational activities, supporting bodies and benchmarking activities in 13 European countries that had national hand hygiene campaigns in 2000-2009

Country	National activities							Campaign materials				Government support		Other Support			Benchmarking			
	National campaign	Press conference	Press release	Television spot	Leaflets	Posters	Other	Dedicated website	Material for HCW <sup>a</sup>	Training for HCW	Material for patients	Political support	Financial support	Non-governmental organisations	Pharmaceutical companies (including ABHR <sup>b</sup> manufacturers)	National support for tracking ABHR consumption	Increased availability of ABHR	National support for auditing compliance with hand hygiene in hospitals	Data on compliance with hand hygiene and its improvement with campaign	Data on usage of ABHR
Belgium	•	•	•		•	•	•	•	•	•	•	•	•	•		•	•	•	•	•
Bulgaria	•		•	•		•	•		•	•		•	•	•	•					
Cyprus	•		•		•	•	•		•	•		•								
France	•	•	•		•	•	•	•	•	•	•				•	•		•		
Germany	•	•			•	•	•	•	•	•	•	•	•	•	•		•	•		
Ireland	•		•	•	•	•	•		•	•		•			•		•			
Italy	•				•	•	•	•	•			•					•	•		•
Malta	•	•	•		•	•	•		•	•		•	•		•		•	•	•	•
Portugal	•		•		•	•	•	•	•		•	•	•	•	•		•	•		
Romania	•					•			•			•	•				•			
Spain	•	•	•		•	•		•	•	•		•	•		•		•	•	•	•
United Kingdom	•		•		•	•	•	•	•		•	•	•	•	•		•		•	•
Norway	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•			•

<sup>a</sup>HCW: healthcare workers;

<sup>b</sup>ABHR: alcohol-based hand rubs.

regional scale. Detailed results are presented below and in Table 1. Internet addresses of national campaigns and other national educational resources on hand hygiene are compiled in Table 2.

### Belgium

Belgium has had three national hand hygiene campaigns, all called 'You Are in Good Hands', in 2005-6, 2006-7 and 2008-9. More than 90% of acute care hospitals participated in these campaigns. The last two campaigns also targeted chronic care and other specialised institutions. Support from governmental and non-governmental organisations (NGO) was available for all campaigns, which included a press conference held by the Minister of Health, press releases, coverage through television programmes, leaflets, posters and a dedicated website containing downloadable training material for HCW and promotional material and protocols for measuring how compliant HCW were with hand hygiene ([www.hicplatform.be](http://www.hicplatform.be)). A special protocol and software were developed to enter hand hygiene compliance data; these data were sent to the national surveillance institute for analysis and benchmarking. A web-based quiz on hand hygiene for HCW was available in 2006 and 2008 (<http://www2.iph.fgov.be/handhy/>) and quiz scores were analysed at the national level and benchmarked between hospitals. There was an increase of ABHR use and in hand hygiene compliance during all three campaigns. Institutional results from observations, questionnaires and quiz scores were returned to individual hospitals for feedback. Feedback reports included hospital compliance with 95% confidence intervals, position of the hospital in the national distribution, national results and indicators stratified by professional group, type of ward, type of contact in accordance with the five WHO indicators of hand hygiene, and by hospital unit. Data from 2005-6 on hand hygiene compliance and ABHR consumption in Belgium have been published by Simon

et al. [15] and Goossens et al. [16]. A detailed report of the first two campaigns has been submitted for publication and data from 2008-9 are currently being collected.

### Bulgaria

'Hand Hygiene - What Do We Know' was the name of the national Bulgarian hand hygiene campaign, which took place from 2004 to 2006. Support was available from the government, from the 'Swiss-Bulgarian Programme for Hospital Hygiene', as well as from pharmaceutical companies including manufacturers of ABHR. Targeting HCW, the campaign involved press releases and posters, multicentre questionnaire studies, training programmes on a national scale, lectures during training periods and invited speakers from other countries. No data is currently available for auditing of compliance with hand hygiene or consumption of ABHR.

### Cyprus

Cyprus had two national, one-week campaigns called 'Hand Hygiene Week' in 2007 and 'Did You Wash Your Hands?' in 2008. Both campaigns were organised by the National Infection Control Committee and the Infection Control Nurses Committee. The campaigns included press releases, leaflets, seminars and posters for the public and for HCW. National training programmes and on-site clinical training on hand hygiene were offered for HCW. Free leaflets and posters as well as stations with information about infection control were available at the entrances of the hospital. Stickers were distributed widely, and children in paediatric units used painting as a means to learn about hand hygiene. The availability of ABHR in hospitals was increased. Financial support from the government was available for the campaign and for auditing of compliance, but there was no national support for measuring consumption of ABHR.

TABLE 2

#### Internet addresses of national campaigns and other educational resources on hand hygiene in Europe

Country	Campaign web address
Belgium	<a href="http://www.hicplatform.be">www.hicplatform.be</a>
Denmark	<a href="http://www.ssi.dk/hygiene">www.ssi.dk/hygiene</a>
Finland	<a href="http://www.sshy.fi/">www.sshy.fi/</a>
France	<a href="http://www.sante-sports.gouv.fr/dossiers/sante/mission-mains-propres/mission-mains-propres.html">www.sante-sports.gouv.fr/dossiers/sante/mission-mains-propres/mission-mains-propres.html</a>
Germany	<a href="http://www.aktion-sauberehaende.de">www.aktion-sauberehaende.de</a>
Italy	<a href="http://www.ccm-network.it/node/85">www.ccm-network.it/node/85</a>
The Netherlands	<a href="http://www.handhygieneredtlevens.nl">www.handhygieneredtlevens.nl</a>
	<a href="http://www.gewoonhandenschoon.nl">www.gewoonhandenschoon.nl</a>
Norway	<a href="http://www.renomsorg.no">www.renomsorg.no</a>
Portugal	<a href="http://www.dgs.pt">www.dgs.pt</a> (click on 'Microsite do Controlo da Infecção')
Spain	<a href="http://www.seguretatpacienc.org/cms/index.php?id=95&amp;L=2">www.seguretatpacienc.org/cms/index.php?id=95&amp;L=2</a>
	<a href="http://www.seguridadelpaciente.es">www.seguridadelpaciente.es</a>
	<a href="http://www.juntadeandalucia.es/agenciadecalidadsanitaria/observatorioseguridadpaciente/gestor/sites/PortalObservatorio/es/menu/practicaseSeguras/Prevencion_de_la_infeccion_asociada_a_la_atencion_sanitaria/">www.juntadeandalucia.es/agenciadecalidadsanitaria/observatorioseguridadpaciente/gestor/sites/PortalObservatorio/es/menu/practicaseSeguras/Prevencion_de_la_infeccion_asociada_a_la_atencion_sanitaria/</a>
United Kingdom	England and Wales <a href="http://www.npsa.nhs.uk/cleanyourhands/">www.npsa.nhs.uk/cleanyourhands/</a>
	Northern Ireland <a href="http://www.dhsspsni.gov.uk/cleanyourhands">www.dhsspsni.gov.uk/cleanyourhands</a>
	Scotland <a href="http://www.washyourhandsofthem.com">www.washyourhandsofthem.com</a> <a href="http://www.hps.scot.nhs.uk/haic/ic/nationalhandhygienecampaign.aspx">www.hps.scot.nhs.uk/haic/ic/nationalhandhygienecampaign.aspx</a>

### France

On 23 May 2008, France had a national campaign for hand hygiene called 'Mission clean hands'. An estimated 140,000 people participated. Press conferences, press releases, television programmes, leaflets, posters, and a stand at the exhibition 'Hôpital Expo 2008' ([www.hopitalexpo.com](http://www.hopitalexpo.com)) were organised, and a dedicated campaign website was created (<http://www.sante-sports.gouv.fr/dossiers/sante/mission-mains-propres/mission-mains-propres.html>). HCW were offered training programmes on a national scale including movie clips (<http://www.sante-sports.gouv.fr/dossiers/sante/mission-mains-propres/outils-campagne/clips.html>), a slideshow (<http://www.sante-sports.gouv.fr/dossiers/sante/mission-mains-propres/outils-campagne/diaporama.html>) and a self-evaluation quiz (<http://www.sante-sports.gouv.fr/dossiers/sante/mission-mains-propres/testez-vos-connaissances/quizz-campagne.html>). Patients were targeted by leaflets, posters, websites and a hotline telephone number where they could obtain information on HCAI. Governmental support was available, as well as support from NGOs and pharmaceutical companies, including manufacturers of ABHR. National aid was also given for auditing of compliance with hand hygiene and measuring consumption of ABHR. Data on auditing can be downloaded from: [http://www.grephh.fr/telechargement/mains\\_guidemethodologique.pdf](http://www.grephh.fr/telechargement/mains_guidemethodologique.pdf). Results regarding increased availability of ABHR, consumption of ABHR as well as compliance with hand hygiene will be available in July 2009. Results prior to 2007 can be downloaded from: [http://www.sante.gouv.fr/htm/dossiers/nosoco/tab\\_bord/documents/rapport2007.pdf](http://www.sante.gouv.fr/htm/dossiers/nosoco/tab_bord/documents/rapport2007.pdf).

### Germany

'ACTION Clean Hands' is a national campaign that has been ongoing since January 2008 with plans to last until December 2010. Campaign media activities included press conferences, leaflets, posters, comics, an introductory course book, e-learning tools and a dedicated website ([www.aktion-sauberehaende.de](http://www.aktion-sauberehaende.de)). Activities targeting HCW included training programmes on a national scale and a national campaign day held on 22 October 2008. Governmental support was available, as well as from many NGOs and pharmaceutical companies, including those manufacturing ABHR. National support for tracking consumption of ABHR and for auditing of compliance with hand hygiene was also available. Baseline data on ABHR consumption and compliance with hand hygiene were collected up to the time of our survey and follow-up data are expected.

### Ireland

In 2006-7, Ireland organised a national campaign called 'Clean Hands Save Lives'. Its media involvement included press releases, television programmes, leaflets, posters, radio and print advertising. Hand hygiene resources for acute hospitals were included as an element of national hospital hygiene standards and subsequent external audits. No national training programme was available for HCW, but posters, e-learning programmes on hand hygiene, and a DVD on standard precautions were offered. Patients were targeted by posters and television advertising, urging them to take an active role in their health by reminding HCW to wash their hands. Financial governmental support came from the Health Service Executive and there was national support for auditing of compliance with hand hygiene practices and measuring consumption of ABHR. A significant increase in ABHR consumption was observed from 2006 to 2008 (<http://www.hpsc.ie/hpsc/A-Z/Gastroenteric/Handwashing/Publications/>).

### Italy

A national campaign called 'Clean Care is Safer Care' took place in Italy in 2007-8. Media activities for HCW included leaflets, posters and a dedicated website (<http://www.ccm-network.it/node/85>). In order to further increase awareness of hand hygiene, hand microbiological sampling was offered in some hospitals. Increased availability of ABHR was observed in hospitals. Financial support from the government was available, as was national support for auditing compliance with hand hygiene practices and for tracking ABHR consumption. As part of a WHO-selected and funded pilot site, a network comprising 41 intensive care units is collecting data on rates of HCAI before and after the national hand hygiene campaign. Preliminary, but unpublished data on how compliance improved during the campaign have been collected.

### Malta

A national campaign called 'Stop, Rub & Go' was launched in October 2008. Activities included press conferences, press releases, leaflets, posters and newspaper articles. Hand hygiene training on a national scale and on the ward level as well as seminars were available for HCW. This campaign was supported by the government and national support was also available for auditing compliance and measuring availability and consumption of ABHR.

### Norway

A national campaign called 'Pure consideration' was organised in Norway in 2005. To better promote it, a professional advertising company was hired and press conferences, press releases, leaflets, posters and a dedicated website ([www.renomsorg.no](http://www.renomsorg.no)) were part of the framework of the campaign. Training programmes for HCW were offered on a national scale, and training and teaching material was distributed to local campaign leaders. Prior to the campaign, focus groups targeting hospital managers and HCW were organised and new national guidelines on hand hygiene were published. Governmental support was available, but there was no support for tracking consumption of ABHR. Other local activities were funded by the healthcare institutions themselves. There was increased availability of ABHR and national sales figures of ABHR tripled after the campaign ([http://www.fhi.no/eway/default.aspxpid=233&trg=MainLeft\\_5565&MainArea\\_5661=5565:0:15,3424:1:0:0:::0:0&MainLeft\\_5565=5544:61110::1:5569:3:::0:0](http://www.fhi.no/eway/default.aspxpid=233&trg=MainLeft_5565&MainArea_5661=5565:0:15,3424:1:0:0:::0:0&MainLeft_5565=5544:61110::1:5569:3:::0:0)). A detailed self-evaluation of the campaign is available in Norwegian at: <http://www.fhi.no/dav/4F85451BCA.pdf>.

### Portugal

A national campaign in Portugal called 'Hand Hygiene, a Shared Responsibility' began in October 2008 with plans to continue until March 2010. This campaign is based on two cornerstones: HCW training and awareness and education at the hospital level. General media activities include leaflets, posters, press releases and a dedicated website ([www.dgs.pt](http://www.dgs.pt) and click on 'Microsite do Controlo da Infecção'). HCW are trained by national and hospital training programmes. A web-based programme is available that offers data collection questionnaires created by the WHO facilitating data generation on hand hygiene compliance and consumption of ABHR. Political and financial support is available from the government and from a health sector NGO. National support for auditing of hand hygiene compliance and for measuring consumption of ABHR will be provided in 2009, increased availability of ABHR will start in 2010 and data on compliance with hand hygiene and consumption of ABHR will be available in 2010.

### Romania

A national campaign called 'Universal Precaution' was organised in Romania in 2007. This campaign was supported politically by the government and by an NGO, the Global Fund. Regular training sessions about hand hygiene had already been a part of each hospital's hand hygiene plan and were continued throughout the campaign.

### Spain

National campaigns called 'Clean Hands Save Lives' with regional adaptations have been held since 2006 in Spain, initially targeting HCW and currently also the public. Spain pledged its support to the First Global Patient Safety Challenge in 2006, and since 2005 specific funds have been provided to health regions by the Ministry of Health. The design and implementation of the different activities was initially carried out at regional level, and currently a national coordination group has taken the lead. Training programmes for HCW are available on a national scale, not only through media and relevant websites, but mainly through educational activities. Political and financial governmental support is available, as is national support for auditing of compliance of hand hygiene and measuring the consumption of ABHR. There is increased availability of ABHR. Initial data on compliance with hand hygiene have been published [17,18]. Relevant campaign website addresses are shown in Table 2.

### United Kingdom

In 2004, the National Patient Safety Agency (NPSA), initiated the 'cleanyourhands Campaign' within the National Health Service (NHS) in England and Wales ([www.npsa.nhs.uk/cleanyourhands/](http://www.npsa.nhs.uk/cleanyourhands/)). There are plans to continue the campaign until 2010. Funding for the campaign comes from the Government with additional support from suppliers of hand hygiene products. The campaign is supported by additional organisations including the NHS Purchasing and Supply Agency (now NHS Supply Chain) and the Infection Control Nurses Association (now the Infection Prevention Society). The campaign targets HCW with the provision of ABHR at the point of care, posters, press releases, leaflets, education and training resources, and its dedicated website. Involving patients is also part of the campaign, with some materials featuring the message 'It's OK to Ask'. In 2009, a series of training workshops on the WHO 'Five Moments for Hand Hygiene' ([http://www.who.int/gpsc/tools/Five\\_moments/en/index.html](http://www.who.int/gpsc/tools/Five_moments/en/index.html)) are taking place, supported also by other resources including a DVD. A pilot project has been started, designed to empower patients to improve compliance of HCW with hand hygiene. Data on compliance with hand hygiene and on consumption of ABHR can be downloaded from: [www.idrn.org/nosec.php](http://www.idrn.org/nosec.php).

In 2008, the Department of Health Social Services and Public Safety in Northern Ireland linked with the NPSA and launched the 'cleanyourhands Campaign' ([www.dhsspsni.gov.uk/cleanyourhands](http://www.dhsspsni.gov.uk/cleanyourhands)).

In Scotland, the hand hygiene campaign 'Germs. Wash your hands of them' ([www.washyourhandsofthem.com](http://www.washyourhandsofthem.com)) was launched in 2007 by Health Protection Scotland (HPS). An audit tool and supporting protocol are used by Scotland's 14 NHS Boards, and data for hand hygiene compliance from all NHS Boards is reported quarterly and can be downloaded from: <http://www.hps.scot.nhs.uk/haic/ic/nationalhandhygienecampaign.aspx>. Previous targets for compliance set by the Scottish government have been met and exceeded, and now a zero tolerance approach is being taken by all NHS Boards towards non-compliance with hand hygiene.

### Countries that are currently preparing a national campaign

**Austria** has not yet had any national campaigns, but is planning to organise one in the course of 2009. Activities of this upcoming campaign will include press conferences, press releases, leaflets and posters. A separate portion of the campaign will target HCW, and will make use of educational modules that are already in place. Websites and other media activities will also be available. Political and financial support is to come from the government, and evaluation of the campaign by feedback and benchmarking is one of its goals.

**Greece** has not yet had a national campaign, although the Hellenic Centre for Disease Control and Prevention (KEELPNO) is planning a national campaign in the autumn of 2009, entitled 'National Week on Hand Hygiene'. Since 2007 KEELPNO has been supported financially by the government, has been active in distributing hand hygiene guidelines and posters to all hospital infection control committees and in organising hospital lectures regarding hand hygiene. Other measures have included successfully placing ABHR containers on bed rails in most Greek hospitals and posting information for the public and HCW regarding hand hygiene at: <http://www.keelpno.gr/articles/topic/?id=379>

**Luxembourg.** No national campaign has taken place yet, but many local hospital-based activities exist. Luxembourg is in the process of preparing a national campaign for 2009, which will be called 'Clean Hands are Safe Hands'. In order to promote awareness, this campaign will include press conferences, press releases, posters and leaflets for HCW, patients and the public. A self-evaluation web-based quiz and pre- and post-campaign compliance evaluation for HCW will also be provided. Governmental and NGO support already exists, and national support for auditing of compliance with hand hygiene and tracking of consumption of ABHR will also be available.

### Countries that did not report having had a national campaign

**Czech Republic.** No national campaign has been held yet, but local hospital campaigns on hand hygiene have taken place. Hand hygiene training programmes have been offered to HCW since 2003 and regional ABHR manufacturing companies have targeted HCW by offering professional support, mostly in the form of lectures and hand hygiene training using ultraviolet lamps. There has been an increase in availability of ABHR in hospitals and in compliance with hand hygiene. Data is available on the consumption of ABHR in Joint Commission International-accredited hospitals, but is not published. A local campaign for HCW and patients was organised in 2008 at the Central Military Hospital in Prague, promoting WHO's 'Clean Care is Safer Care' campaign on the hospital intranet and with leaflets and posters. Hand hygiene guidelines were issued by the Ministry of Health in 2005.

**Denmark.** No national campaign has been held so far, but individual, hospital-based campaigns exist. In 2008 the National Board of Health and Statens Serum Institut organised a survey of local campaigns, with regard to their design, resource availability and indicators used for compliance evaluation. An educational hand hygiene website ([www.ssi.dk/hygiene](http://www.ssi.dk/hygiene)) was created in 2002 and updated in 2004. It is available for all healthcare institutions to use when they want to create their own local campaigns. Among other information it offers downloadable material and posters for purchase. The website has also been translated into English.

**Estonia.** No national campaign has been organised but, following national infection control standards issued by the Ministry of Social Affairs, the Estonian Society of Infection Control (an NGO) has been offering annual seminars targeting Estonia's 57 hospitals since 2001. Estonia is currently working on implementing a national system for surveillance of HCAI and aims to evaluate hand hygiene compliance in conjunction with rates of HCAI.

**Finland.** There has not been a national campaign, but many regional and local activities for hand hygiene exist, which are supported financially by the government. These activities include training for HCW, a video on hand hygiene provided by the Finnish Society for Hospital Infection Control and an e-learning course on infection control (<http://www.sshy.fi/>). In addition, several regional campaigns have taken place in acute care and long-term care facilities, focusing mainly on hand hygiene.

**Hungary.** No national campaign has been organised so far, but there are local hospital-based hand hygiene activities for HCW.

**Iceland.** There has been an ongoing regional campaign in Iceland since 2005 called 'Clean Hands Cure the Best', and presentations, leaflets and posters have been used as part of the media activities. No national training programme is offered, but a dedicated website for HCW is available through the Landspítali University hospital. A separate part is dedicated to patients, offering educational leaflets on admission. ABHR are increasingly available in hospitals and data exist on how compliance has improved with this campaign. However, national support for tracking ABHR consumption or compliance with hand hygiene has not been available for this campaign.

**Liechtenstein.** No national hand hygiene campaign has taken place.

**Lithuania.** No national hand hygiene campaign has taken place, but local activities exist and as mandated by national guidelines, posters indicating the proper method of hand hygiene are available in all hospitals.

**Latvia.** No national campaign has been organised yet. Infection control guidelines exist and HCW are given brief teaching sessions on hand hygiene before starting work at hospitals.

**The Netherlands.** No national campaign has been organised yet, but there have been many active regional campaigns targeting HCW only. These campaigns included media activities such as press releases, television programmes, leaflets and posters as well as a dedicated website ([www.handhygieneredtlevens.nl](http://www.handhygieneredtlevens.nl) and [www.gewoonhandenschoon.nl](http://www.gewoonhandenschoon.nl)). Support was available from NGOs, the hospitals themselves and the industry, including pharmaceutical companies and ABHR manufacturing companies. Regional support was available for auditing of compliance with hand hygiene. ABHR were increasingly available in hospitals during the campaigns. Data on consumption of ABHR and on compliance with hand hygiene is available but not yet published.

**Poland.** No national campaign has taken place since the last campaign in 1998, but local infection control activities exist.

**Slovakia.** No national campaign has been organised, but local activities have taken place. For example, regional campaigns on hand hygiene for HCW took place in 2007 and 2008. National

healthcare exhibitions have held demonstrations about the correct use of ABHR. Legislation was passed in 2007 making hand hygiene mandatory and updating infection control guidelines. Since 2006, educational programmes on hand hygiene have been offered for medical students, nursing students, and HCW. Each regional public health authority in the Slovak Republic was provided with educational presentations for HCW in the region.

**Slovenia.** No national campaign has been organised. As part of a local campaign, the University Medical Centre (UKC) in Ljubljana has been organising an ongoing hospital-wide campaign since 2000. This campaign consists of leaflets, posters, CD-ROMs, workshops and a dedicated (restricted) intranet website targeting HCW ([www.kclj.si/portal\\_ZN/](http://www.kclj.si/portal_ZN/)). All HCW must attend seminars on hand hygiene and exams are mandatory. Patients are targeted by distribution of leaflets in Slovenian and English. Availability of ABHR in Slovenia has increased, and its consumption is being tracked at UKC, also in correlation with trends in infection rates of multidrug-resistant bacteria.

**Sweden.** No national campaign for hand hygiene has been held, but regional campaigns are quite active. Regulations from the National Board of Health and Welfare on hand hygiene exist and implementation of these regulations is organised locally. Educational activities for HCW, local hand hygiene campaigns, measuring hand hygiene compliance and also measuring consumption of ABHR are the main foci of Sweden's local campaigns and practices. Results from a questionnaire sent to HCW and healthcare institutes in 2007 showed poor hand hygiene compliance ([www.socialstyrelsen.se/Publicerat/2007/9835/2007-10-103.htm](http://www.socialstyrelsen.se/Publicerat/2007/9835/2007-10-103.htm) )

Sweden is organising a national project to support infection control and hand hygiene in long-term care facilities.

## Discussion

Hand hygiene is an important and essential practice in the field of healthcare, as it reduces the transmission of microorganisms and prevents HCAI. Organising national hand hygiene campaigns is one of the recommended strategies in WHO's First Global Patient Safety Challenge 'Clean Care is Safer Care'.

As of April 2009, 16 of the 30 European countries included in this review had organised or were in the process of putting together national hand hygiene campaigns and several of the remaining countries had regional campaigns. Our intention was to look into the types of hand hygiene activities that currently exist in European countries, at national and regional level. It is apparent that European countries are currently at varied stages of development of national campaigns, ranging from no campaigns at all, to regional activities, to plans for upcoming campaigns and to already elaborately organised campaigns. Some countries that did not have a national campaign, reported active regional campaigns providing significant hand hygiene information and activities.

Hand hygiene campaigns involve processes that work on multiple levels within healthcare systems in order to improve hand hygiene compliance. Targeting relevant groups by education, evaluation and providing feedback are some of the key components of a campaign. Implementation of hand hygiene campaigns requires careful planning, often changes in established beliefs and behaviour, system change and also administrative and/or national support. It would thus have been interesting to compare details about the structure of national and regional campaigns; however, we were unable to obtain detailed information from all countries.

Evaluation of the impact of national or even regional campaigns would require data on compliance with hand hygiene practices,

consumption of ABHR and possibly decrease in HCAI. We attempted to obtain this information, but only some of the countries in this review had collected such data, making it difficult to assess or compare efficacy of campaigns. This is most likely due to the fact that countries are at different stages of the implementation and evaluation of hand hygiene activities.

It is beyond the scope of this article to discuss the likely reasons for differences in the level of implementation of campaigns, as our sole purpose was to document the types of hand hygiene campaign activities that exist in Europe at a national and regional level. We hope that this review will contribute to the exchange of experiences and of information between European countries. We hope that our information can be used as a tool for self-assessment by the individual countries themselves and we anticipate that all countries will continue their efforts to promote hand hygiene in Europe as part of a concerted global strategy to improve patient safety.

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