Hand Hygiene Programme Successes in Member Countries of the INICC
Dr. Victor Rosenthal, International Nosocomial Infection Control Consortium
Broadcast live from the 2017 ICPCNC Conference, Auckland

INICC Multidimensional Hand Hygiene Approach (IMHHA)

1. Administrative support;
2. Availability of supplies;
3. Education and training;
4. Reminders in the workplace;
5. Process surveillance;
6. Performance feedback

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“My five moments for hand hygiene”

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International Nosocomial Infection Control Consortium (INICC)

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INICC Surveillance Online System (ISOS).
Uploading data

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INICC Surveillance Online System (ISOS).
Uploading data

Used product for hand-rub:
- Alcohol
- Chlorhex
- Iodine
- Non Medical Soap
- Alcohol + Chlorhexidine

Used Towel:
- Paper
- Cloth

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Hand Hygiene Compliance in Argentina

Reduction in nosocomial infection with improved hand hygiene in intensive care units of a tertiary care hospital in Argentina

Vicen D. Rosenthal, MD, MSE, OC,* Sandra Garman, RN,* and Nasia Safdar, MD,*

Buenos Aires, Argentina, and Madison, Wisconsin

Background: Hand hygiene is a fundamental measure for the control of nosocomial infection. However, sustained compliance with hand hygiene in healthcare workers is poor. We started to encourage compliance with hand hygiene by implementing education, training, and performance feedback. We measured nosocomial infections in parallel.

Methods: We monitored the overall compliance with hand hygiene during routine patient care in intensive care units (ICUs), 1 medical-surgical ICU and 1 coronary ICU of a hospital in Buenos Aires, Argentina, before and during implementation of a hand hygiene education, training, and performance feedback program. Observational surveys were done twice a week from September 2000 to May 2002. Nosocomial infections in the ICUs were identified using the National Nosocomial Infections Surveillance (NNIS) criteria, with prospective surveillance.

Results: We observed 4537 opportunities for hand hygiene in both ICUs. Compliance improved progressively (handwashing adherence, 25.3% [95% CI 24.6-26.0%] to 64.5% [95% CI 63.8-65.2%], P < .0001; P-adjusted 64.7% to 75.9% [95% CI 75.1-76.7%]; P < .0001). The overall rate of nosocomial infection decreased from 47.55 per 1000 patient-days (393/8477) to 37.95 per 1000 patient-days (107/2809) (R 0.89, 95% CI 0.86-0.93, P < .0001).

Conclusions: A program involving education and feedback produced a sustained improvement in compliance with hand hygiene, coinciding with a reduction in nosocomial infection rates in the ICUs. (Am J Infect Control 2002;30:295-302.)

Hand Hygiene Compliance and HAI Rate

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Hand Hygiene Compliance in Argentina

Effect of education and performance feedback on handwashing: The benefit of administrative support in Argentinean hospitals

Victor Daniel Rosenthal, MD, MS, CIIC\textsuperscript{a}
Rita D. McCormick, RN, CIIC\textsuperscript{b}
Sandra Guzman, RN, IC\textsuperscript{c}
Claudia Villanayor, RN, IC\textsuperscript{c}
Pablo W. Grellano, MS\textsuperscript{d}
Buenos Aires, Argentina, and Madison, Wisconsin

Hand Hygiene Compliance

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Features of the participating hospitals

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Type of facility</th>
<th>Training activities</th>
<th>Administrative support*</th>
<th>Total beds</th>
<th>ICU beds</th>
<th>Initial ratio sink:beds</th>
<th>Final ratio sink:beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Public</td>
<td>Yes</td>
<td>0.9</td>
<td>250</td>
<td>20</td>
<td>1:10</td>
<td>1:10</td>
</tr>
<tr>
<td>B</td>
<td>Private</td>
<td>No</td>
<td>0.9</td>
<td>150</td>
<td>32</td>
<td>1:10</td>
<td>1:2</td>
</tr>
<tr>
<td>C</td>
<td>Private</td>
<td>Yes</td>
<td>0.7</td>
<td>180</td>
<td>20</td>
<td>1:2</td>
<td>1:2</td>
</tr>
</tbody>
</table>

1. Participation in infection control committee,
2. Willingness to meet with infection control representative,
3. Support for installation of additional sinks as needed,
4. Evaluation and approval of submitted infection control policies in timely manner,
5. Provision of appropriate hand hygiene supplies,
6. Active participation in performance feedback process,
7. Admonishment of suboptimal performance when indicated,
8. Willingness to pay for services of hospital epidemiologist activities,
9. Willingness to share activities and success of the infection control efforts in other meetings.

Variables associated with poor Hand Hygiene. Logistic regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>(95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative support</td>
<td>5.57</td>
<td>(5.25-6.31)</td>
<td>.0000</td>
</tr>
<tr>
<td>Sex</td>
<td>0.79</td>
<td>(0.73-0.86)</td>
<td>.0000</td>
</tr>
<tr>
<td>Days</td>
<td>0.89</td>
<td>(0.79-1.00)</td>
<td>.058</td>
</tr>
<tr>
<td>Procedure</td>
<td>0.84</td>
<td>(0.78-0.90)</td>
<td>.0000</td>
</tr>
<tr>
<td>Unit</td>
<td>1.43</td>
<td>(1.30-1.59)</td>
<td>.0000</td>
</tr>
<tr>
<td>Work shift</td>
<td>0.98</td>
<td>(0.93-1.03)</td>
<td>.519</td>
</tr>
<tr>
<td>HCW</td>
<td>0.66</td>
<td>(0.63-0.70)</td>
<td>.000</td>
</tr>
</tbody>
</table>

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Hand Hygiene Compliance in Argentina

Impact of INICC Multidimensional Hand Hygiene Approach in ICUs in Four Cities in Argentina

Victor D. Rosenthal, MD, MSc, CIC; Mónica Viégas, MD;
Daniel Sztkobamer, MD; Guillermo Benchebrit, MD;
Beatriz Santoro, MD; Carlos Esteban Lasra, RN;
Adriana Romani, MD; Beatriz Marta Alicia Di
Nobili, MD; Diana Lanzetta, MD; Leonardo
J. Fernández, MD; María Adelaída Rossetti, MD;
Claudia Mignuzzi, MD; Charisa Barolín, MD;
Estela Martínez; Claudia Bonaventura;
María de los Ángeles Caridi, MD; Adriana Messina, MD;
Beatriz Ricci, MD; Luisa C. Soroka, MD; María
Laura Frás, MD

Hand Hygiene Compliance

Figure. Hand hygiene improvement by year of participation.
INCC 2015

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Variables associated with poor Hand Hygiene.
Logistic regression analysis

The following variables were significantly associated with poor hand hygiene compliance:

- Males versus females
  - 56.8% vs 66.4%;
  - 95% CI, 0.83-0.88;
  - P < 0.001,

- Physicians versus nurses
  - 46.6% vs 67.8%;
  - 95% CI, 0.67-0.7;
  - P < 0.001.

Hand Hygiene Compliance in Colombia

Impact of the International Nosocomial Infection Control Consortium (INICC) multidimensional hand hygiene approach in three cities of Colombia


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Variables associated with poor Hand Hygiene.
Logistic regression analysis

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Hand Hygiene Compliance in China

Original Research
Impact of the International Nosocomial Infection Control Consortium (INICC) Multidimensional Hand Hygiene Approach in five intensive care units in three cities of China

D. Su a, B. Hu b, V.D. Rosenthal c,d, R. Li d, C. Hao d, W. Pan d, L. Tao f, X. Gao f, K. Liu f

a The First Affiliated Hospital Shansi Medical University, Tai Yuan, China
b Zhongshan Hospital, Fudan University, Shanghai, China
c Instituto de Infectologia Evandro Chagas, Oswaldo Cruz, Brazil
d INICC, Buenos Aires, Argentina
e Beijing Chao-Yang Hospital, Capital Medical University, Beijing, China

Hand Hygiene Compliance

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Variables associated with poor Hand Hygiene. Logistic regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Adjusted OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (baseline: female)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.75</td>
<td>0.6–0.98</td>
<td>0.04</td>
</tr>
<tr>
<td>Type of professional (baseline: nurses)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians</td>
<td>0.82</td>
<td>0.63–1.1</td>
<td>0.13</td>
</tr>
<tr>
<td>Ancillary staff</td>
<td>0.57</td>
<td>0.32–1.0</td>
<td>0.06</td>
</tr>
<tr>
<td>Type of contact (baseline: invasive)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-invasive</td>
<td>0.98</td>
<td>0.8–1.22</td>
<td>0.9</td>
</tr>
<tr>
<td>Type of ICU (baseline: adult)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work shift (baseline: morning)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>0.54</td>
<td>0.42–0.7</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

ICU, intensive care unit; OR, odds ratio; CI, confidence interval.

Hand Hygiene Compliance in Brazil

Major article
Impact of the International Nosocomial Infection Control Consortium (INICC) multidimensional hand hygiene approach in 3 cities in Brazil

Eduardo A. Medeiros MD1,2, Gorki Grinberg MD1,2, Victor D. Rosenthal MD, MSc, CIC1,2,3, Daniela Bicudo Angelierni RN4,5, Iselde Buchner Ferreira RN4,5, Raquel Bauer Cechinel RN4,5, Bruna Boaria Zanandrea MD6, Carolina Rohmkohli MD1, Marcos Regalin MD1, Jamile Leda Spessatto MD1, Ricardo Scopel Pasini MD2, Shaline Ferla MD1.

1 Hospital São Paulo, São Paulo, Brazil
2 Hospital General de São Paulo, São Paulo, Brazil
3 Hospital São Miguel, São Paulo, Brazil
4 Hospital Universitário Santa Izabel, Jacareí, Brazil
5 International Nosocomial Infection Control Consortium, Buenos Aires, Argentina

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Hand Hygiene Compliance

Variables associated with poor Hand Hygiene. Logistic regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type of variable</th>
<th>Comparison</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of hospital</td>
<td>Academic vs private</td>
<td></td>
<td>.84</td>
<td>.87-1.01</td>
<td>.84</td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td></td>
<td>.98</td>
<td>.8-1.1</td>
<td>.97</td>
</tr>
<tr>
<td>Sex</td>
<td>Female vs male</td>
<td></td>
<td>.80</td>
<td>.7-1.0</td>
<td>.0001</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td></td>
<td>.97</td>
<td>.6-1.7</td>
<td>.0001</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>Nurses vs physicians</td>
<td></td>
<td>.96</td>
<td>.76-1.08</td>
<td>.2</td>
</tr>
<tr>
<td>Physicians</td>
<td>Nurses vs auxiliary staff</td>
<td></td>
<td>.79</td>
<td>.69-1.06</td>
<td>.0001</td>
</tr>
<tr>
<td>Procedure</td>
<td>Physicians vs nurses</td>
<td></td>
<td>.77</td>
<td>.67-1.03</td>
<td>.0003</td>
</tr>
<tr>
<td></td>
<td>Nurses vs doctors</td>
<td></td>
<td>.99</td>
<td>.94-1.1</td>
<td>.8</td>
</tr>
<tr>
<td></td>
<td>Nurses more than doctors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work shift</td>
<td>Morning vs afternoon</td>
<td></td>
<td>.76</td>
<td>.54-1.09</td>
<td>.22</td>
</tr>
<tr>
<td></td>
<td>Night vs night</td>
<td></td>
<td>.45</td>
<td>.24-1.01</td>
<td>.1</td>
</tr>
<tr>
<td></td>
<td>Night vs morning</td>
<td></td>
<td>.94</td>
<td>.84-1.06</td>
<td>.0001</td>
</tr>
<tr>
<td></td>
<td>More than doctors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CI, confidence interval; HCW, health care worker; HH, hand hygiene; OR, odds ratio.
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Impact of the International Nosocomial Infection Control Consortium (INICC) Multidimensional Hand Hygiene Approach During 3 Years in 6 Hospitals in 3 Mexican Cities

Maria Guadalupe Miranda-Novales, MD, Martha Solórzano-Ortega, MD,† Victor Daniel Rosenthal, MD,‡ Francisco Higuera, MD,§ Alberto Armas-Ruiz, MD,|| Irma Pérez-Serrano, RN,¶ Héctor Torres-Hernández, MD,∥ Irma Zamudio-Lugo, MD,∥ Eric M. Flores-Ruiz, MD,* Roberto Campuzano, MD,† Jorge Mena-Brito, MD,∥ Martina Sánchez-López, MD,¶ Amalia Chávez-Gómez, RN,∥ Jaime Rivera-Morales, MD,∥∥ and Julián E. Valero-Rodríguez, MD∥∥

Hand Hygiene Compliance

![Graph showing hand hygiene compliance over 3 years](https://www.scheulke.com)

**FIGURE 1.** Hand hygiene improvement by year of participation.

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Variables associated with poor Hand Hygiene.
Logistic regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Adjusted OR</th>
<th>95% CI</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of hospital</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(baseline: public)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>0.36</td>
<td>0.33-0.40</td>
<td>0.0001</td>
</tr>
<tr>
<td>Sex (baseline: male)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.98</td>
<td>0.89-1.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Type of professional</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(baseline: ancillary staff)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians</td>
<td>0.76</td>
<td>0.68-0.85</td>
<td>0.0001</td>
</tr>
<tr>
<td>Nurses</td>
<td>0.51</td>
<td>0.44-0.6</td>
<td>0.0001</td>
</tr>
<tr>
<td>Type of contact</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(baseline: invasive)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noninvasive</td>
<td>0.58</td>
<td>0.53-0.62</td>
<td>0.0001</td>
</tr>
<tr>
<td>Type of ICU</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(baseline: adult)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newborn</td>
<td>0.53</td>
<td>0.48-0.6</td>
<td>0.0001</td>
</tr>
<tr>
<td>Pediatric</td>
<td>0.87</td>
<td>0.75-1.0</td>
<td>0.048</td>
</tr>
<tr>
<td>Hour shift</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(baseline: morning)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>0.91</td>
<td>0.84-1.0</td>
<td>0.04</td>
</tr>
<tr>
<td>Night</td>
<td>0.74</td>
<td>0.67-0.82</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

Hand Hygiene Compliance in India

The impact of the International Nosocomial Infection Control Consortium (INICC) multicenter, multidimensional hand hygiene approach in two cities of India

Murali Chakravarthy¹, Sheila Nainan Myatra², Victor D. Rosenthal³,⁴, F.E. Udewadiya¹, B.N. Gokul⁵, J.V. Divatia⁷, Aruna Poojary¹, R. Sukanya¹, Rohini Kelkar⁷, Goura Koppirkar⁶, Leema Pushparaj¹, Sanjay Biswas³, Lata Bhandarkar³, Sandhya Raut¹, Shital Jadhav¹, Sulochana Sampat¹, Neeraj Chavan¹, Shweta Bhalirane⁴, Shilpa Durgad⁴

¹ Fortis Hospital, Bangalore, India
² Tata Memorial Hospital, Mumbai, India
³ International Nosocomial Infection Control Consortium (INICC), Buenos Aires, Argentina
⁴ Breach Candy hospital (BCH), Mumbai, India

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Hand Hygiene Compliance

Figure 1 Hand hygiene improvement by year of participation.

Variables associated with poor Hand Hygiene. Logistic regression analysis

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Impact of the International Nosocomial Infection Control Consortium (INICC) Multidimensional Hand Hygiene Approach, over 8 years, in 11 cities of Turkey

Hakan Leblebicigil1, Ilfiar Kolesafi, Victor D. Rosenthal2, Ozay Arkan Akun1, Asu Ozyulucu1, Tanil Kendirli1, Nurrettin Erben1, Ata Nevzat Yalcin1, Sercan Ulusoy1, Fatma Sirimatel2, Davut Ozdemir1, Emine Alpi1, Dinçer Yildizdas1, Saban Esem1, Fatma Ulger1, Ahmet Dilekli1, Hava Yilmaz1, Gursel Yilmaz1, Sercan Kay2, Hulya Ulusoy1, Melek Tulunay1, Mehmet Oral1, Necmettin Unal6, Guillem Turan1, Nur Akgun1, Asuman Inan1, Erdal Inci1, Adem Karbuz3, Ergin Ciftci1, Nevin Tayyapan1, Melek Gunes1, Ilhan Ozcenes1, Gaye Usluer1, Orge Turhan1, Nurgul Gunay1, Etyul Gunes2, Oguz Dursun1, Bilgin Arda1, Feza Bacakoglu1, Mustafa Cengiz1, Leyla Yilmaz1, Mehmet Faruk Geyik1, Ahmet Sahin1, Selvi Erdogan1, Aysegul Ulku Kac1 and Ozlem Ozgur Hormuz1

Variables associated with poor Hand Hygiene.
Logistic regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Adjusted OR</th>
<th>95% CI</th>
<th>P.Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (baseline: Female)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.93</td>
<td>0.86 - 1.00</td>
<td>0.056</td>
</tr>
<tr>
<td>Type of professional (baseline: nurses)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians</td>
<td>1</td>
<td>0.94 - 1.1</td>
<td>0.804</td>
</tr>
<tr>
<td>Ancillary Staff</td>
<td>0.69</td>
<td>0.64 - 0.75</td>
<td>0.001</td>
</tr>
<tr>
<td>Type of contact (baseline: invasive)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-invasive</td>
<td>0.65</td>
<td>0.61 - 0.96</td>
<td>0.001</td>
</tr>
<tr>
<td>Type of ICU (baseline: pediatric)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult ICU</td>
<td>0.22</td>
<td>0.19 - 0.24</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Work Shift</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>0.97</td>
<td>0.91 - 1.03</td>
<td>0.372</td>
</tr>
<tr>
<td>Night</td>
<td>0.65</td>
<td>0.59 - 0.74</td>
<td>0.001</td>
</tr>
</tbody>
</table>

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Hand Hygiene Compliance

Hand Hygiene Compliance in 19 countries

Impact of the International Nosocomial Infection Control Consortium (INICC) Multidimensional Hand Hygiene Approach over 13 Years in 51 Cities of 19 Limited-Resource Countries from Latin America, Asia, the Middle East, and Europe

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Characteristics of the Participating Hospitals
(from April 1999 to December 2012)

<table>
<thead>
<tr>
<th>Country</th>
<th>ICUs, n</th>
<th>Number of observers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>11</td>
<td>21998</td>
</tr>
<tr>
<td>Brazil</td>
<td>4</td>
<td>4853</td>
</tr>
<tr>
<td>China</td>
<td>2</td>
<td>2079</td>
</tr>
<tr>
<td>Colombia</td>
<td>11</td>
<td>13512</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>1</td>
<td>303</td>
</tr>
<tr>
<td>Cuba</td>
<td>1</td>
<td>434</td>
</tr>
<tr>
<td>Greece</td>
<td>1</td>
<td>2315</td>
</tr>
<tr>
<td>El Salvador</td>
<td>3</td>
<td>1491</td>
</tr>
<tr>
<td>India</td>
<td>18</td>
<td>32949</td>
</tr>
<tr>
<td>Lebanon</td>
<td>1</td>
<td>1728</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1</td>
<td>1565</td>
</tr>
<tr>
<td>Macedonia</td>
<td>1</td>
<td>3418</td>
</tr>
<tr>
<td>Mexico</td>
<td>10</td>
<td>13204</td>
</tr>
<tr>
<td>Pakistan</td>
<td>3</td>
<td>1830</td>
</tr>
<tr>
<td>Panama</td>
<td>1</td>
<td>551</td>
</tr>
<tr>
<td>Peru</td>
<td>5</td>
<td>6610</td>
</tr>
<tr>
<td>Philippines</td>
<td>9</td>
<td>17944</td>
</tr>
<tr>
<td>Poland</td>
<td>1</td>
<td>102</td>
</tr>
<tr>
<td>Turkey</td>
<td>12</td>
<td>22840</td>
</tr>
<tr>
<td>All countries</td>
<td>99</td>
<td>149,727</td>
</tr>
</tbody>
</table>

Type of ICU, n (%)
- Adult: 80 (81%)
- Pediatric: 9 (9%)
- New Born: 10 (10%)
- All ICUs: 99 (100%)

Type of hospital, n (%)
- Academic Teaching: 27 (28%)
- Public Hospital: 16 (25%)
- Private Community: 22 (34%)
- All hospitals: 65 (100%)

Variables associated with poor Hand Hygiene.
Logistic regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Adjusted OR</th>
<th>95% CI</th>
<th>P. value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (baseline: Female)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.91</td>
<td>0.89 – 0.93</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Type of professional (baseline: nurses)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians</td>
<td>0.68</td>
<td>0.66 – 0.70</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Ancillary Staff</td>
<td>0.52</td>
<td>0.51 – 0.54</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Type of contact (baseline: invasive)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-invasive</td>
<td>0.95</td>
<td>0.93 – 0.98</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Type of ICU (baseline: New Born)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult ICU</td>
<td>0.49</td>
<td>0.47 – 0.52</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Pediatric ICU</td>
<td>0.58</td>
<td>0.54 – 0.62</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Work Shift (baseline: Night)</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afternoon</td>
<td>0.79</td>
<td>0.76 – 0.81</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Morning</td>
<td>0.83</td>
<td>0.81 – 0.86</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

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Hand Hygiene Compliance

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Conclusions

1. In Argentina, Colombia, and China, hand hygiene compliance is better among women and nurses compared to men and doctors.
2. In Brazil, Mexico, Turkey and India, hand hygiene compliance is similar or worst among women and nurses compared to men and doctors.
3. Globally hand hygiene compliance is better among women and nurses compared to men and doctors.
4. INICC Surveillance Online System (ISOS) was successful in measuring and improving adherence with HH.
5. ISOS allow ICP to upload data of compliance with HH and fast creation of charts.
6. Improving HH adherence was associated with reduction of HAI rates.

Thank you very much

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