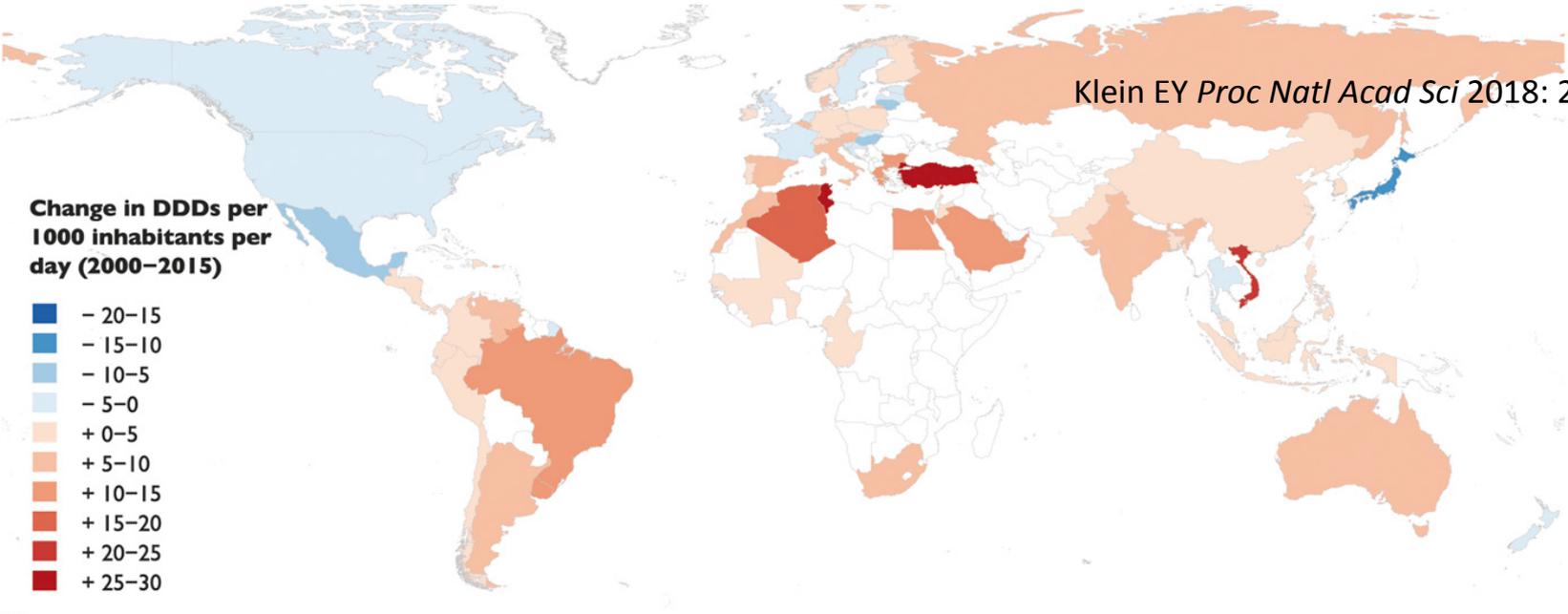


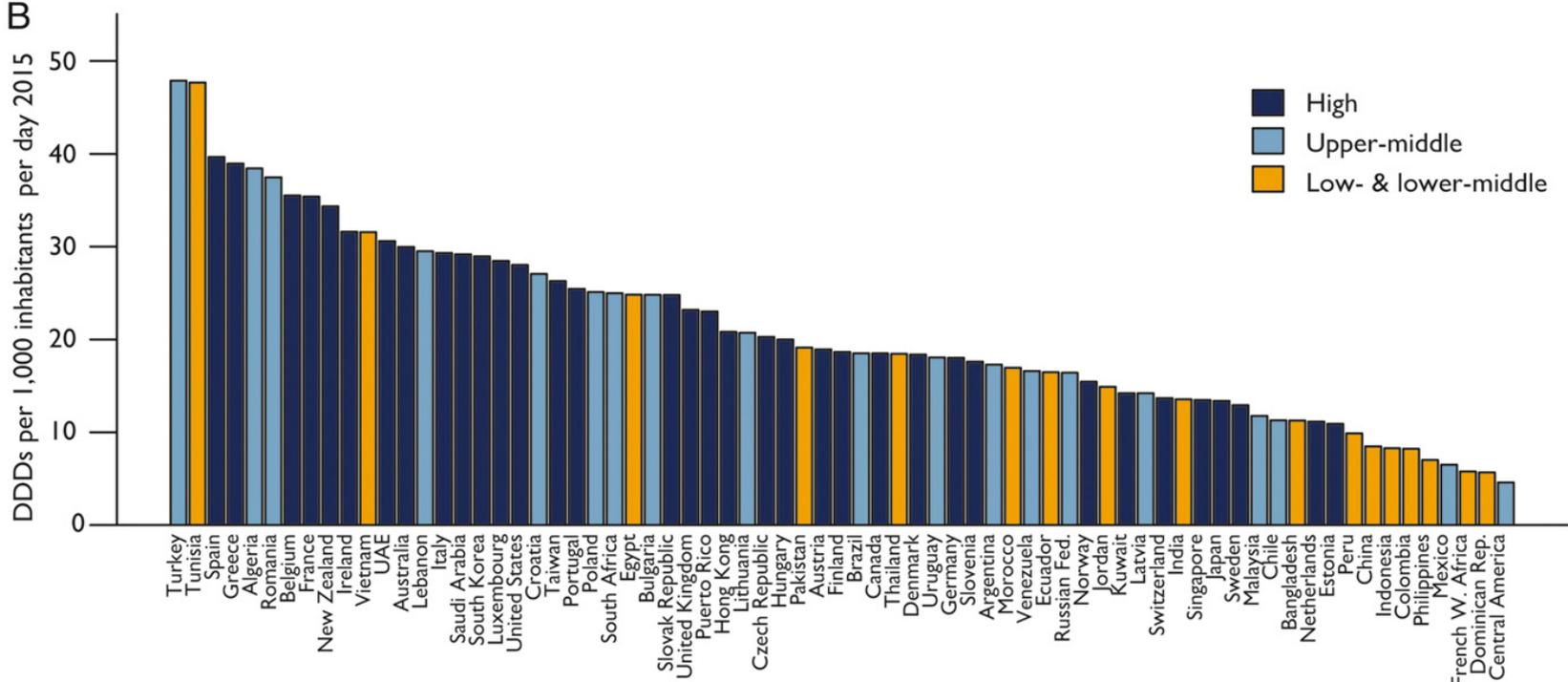
Views on efficient and cost-effective IPC measures to address AMR in healthcare facilities

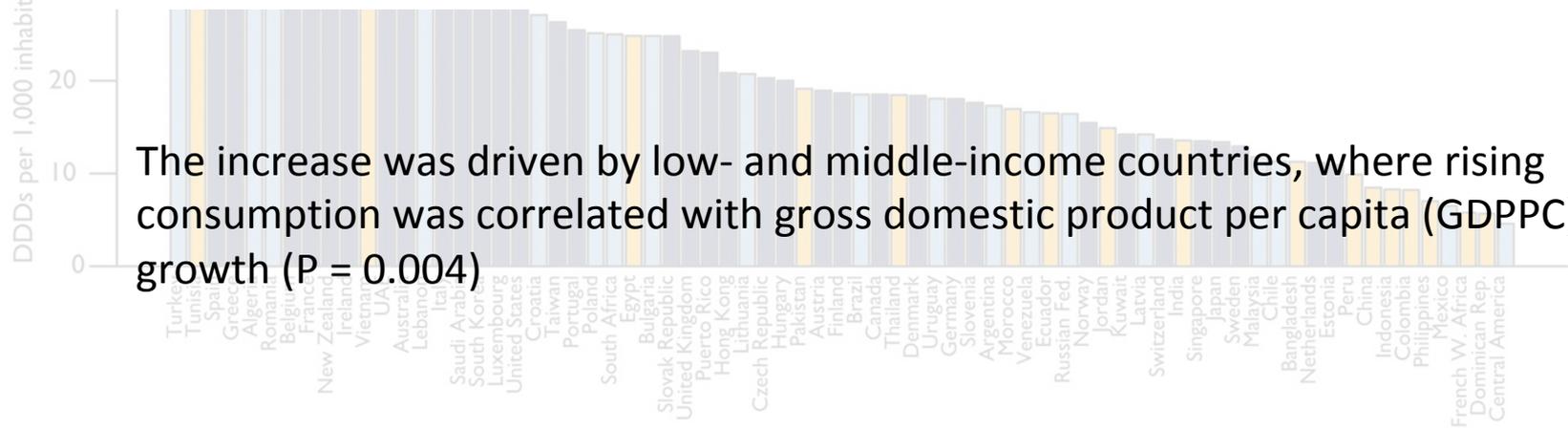
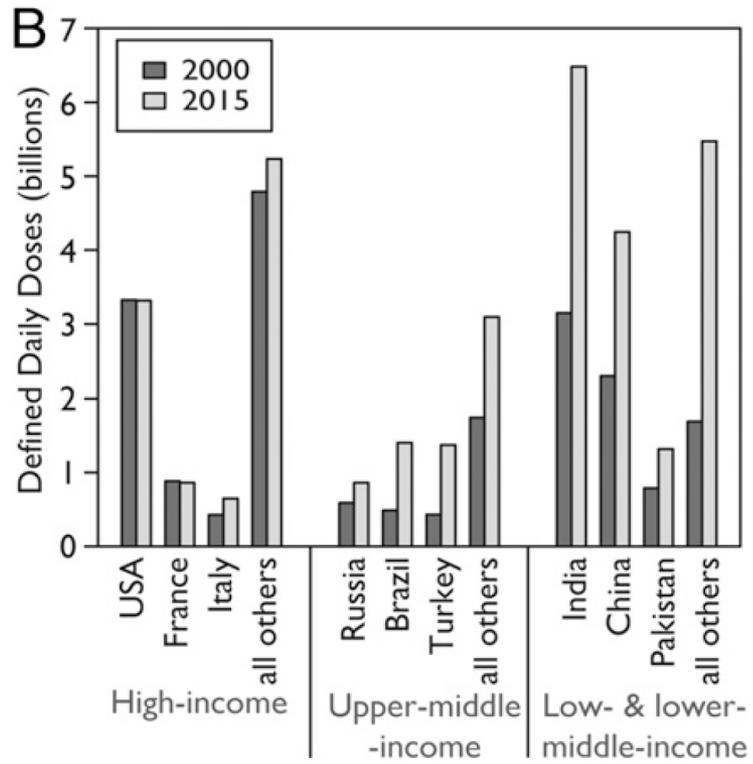
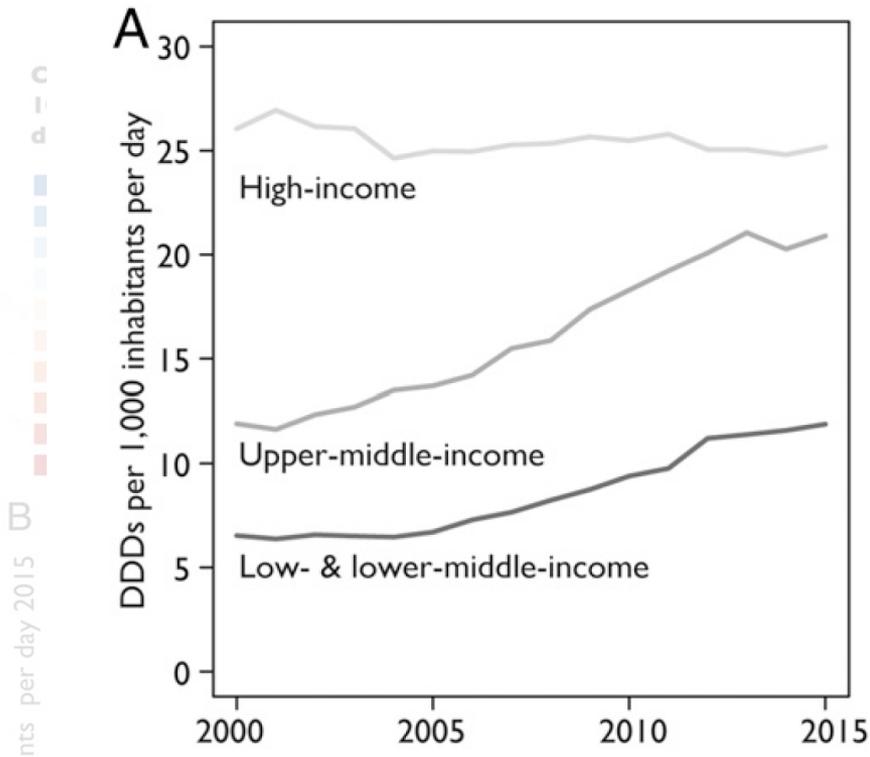
Walter Zingg, PD, MD



Change in DDDs per 1000 inhabitants per day (2000–2015)

- - 20–15
- - 15–10
- - 10–5
- - 5–0
- + 0–5
- + 5–10
- + 10–15
- + 15–20
- + 20–25
- + 25–30





Only treat bacterial infections

Do not treat colonization/contamination

Re-evaluate prescription after 48 h

Stop treatment when not necessary

Choose initial treatment well

Change for oral treatment when possible

**Say no to
antibiotics**

**Use antibiotics
wisely**

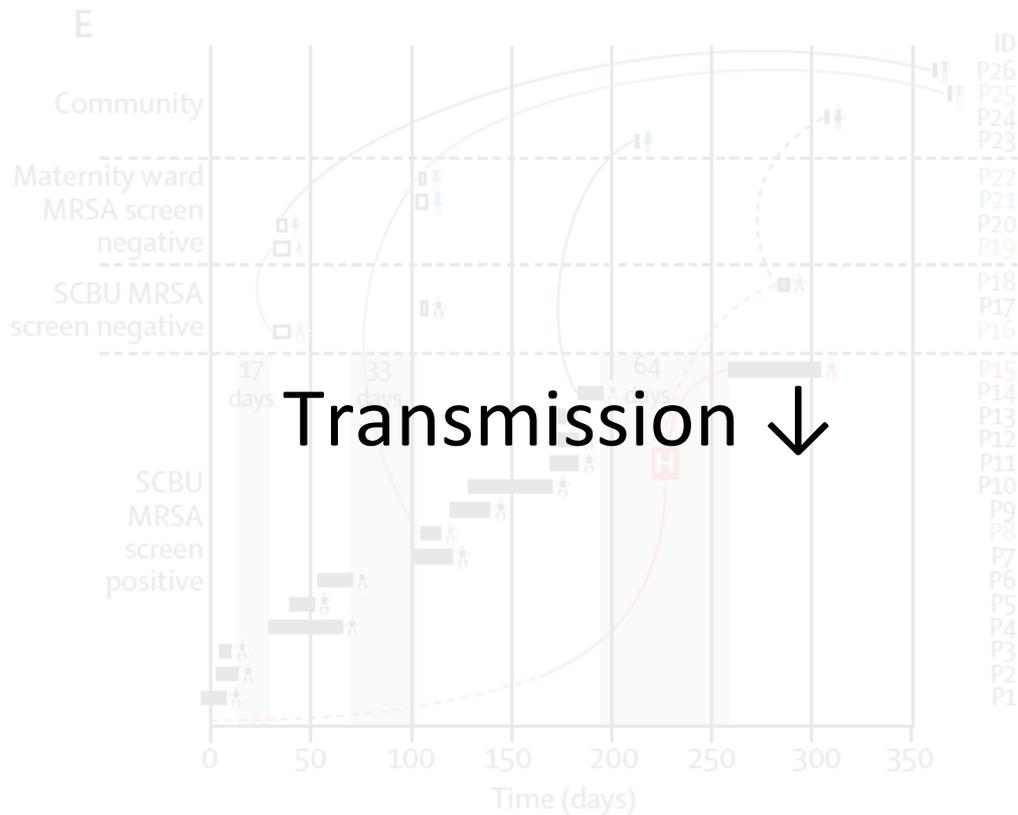
Limit invasive devices

Respect infection control measures

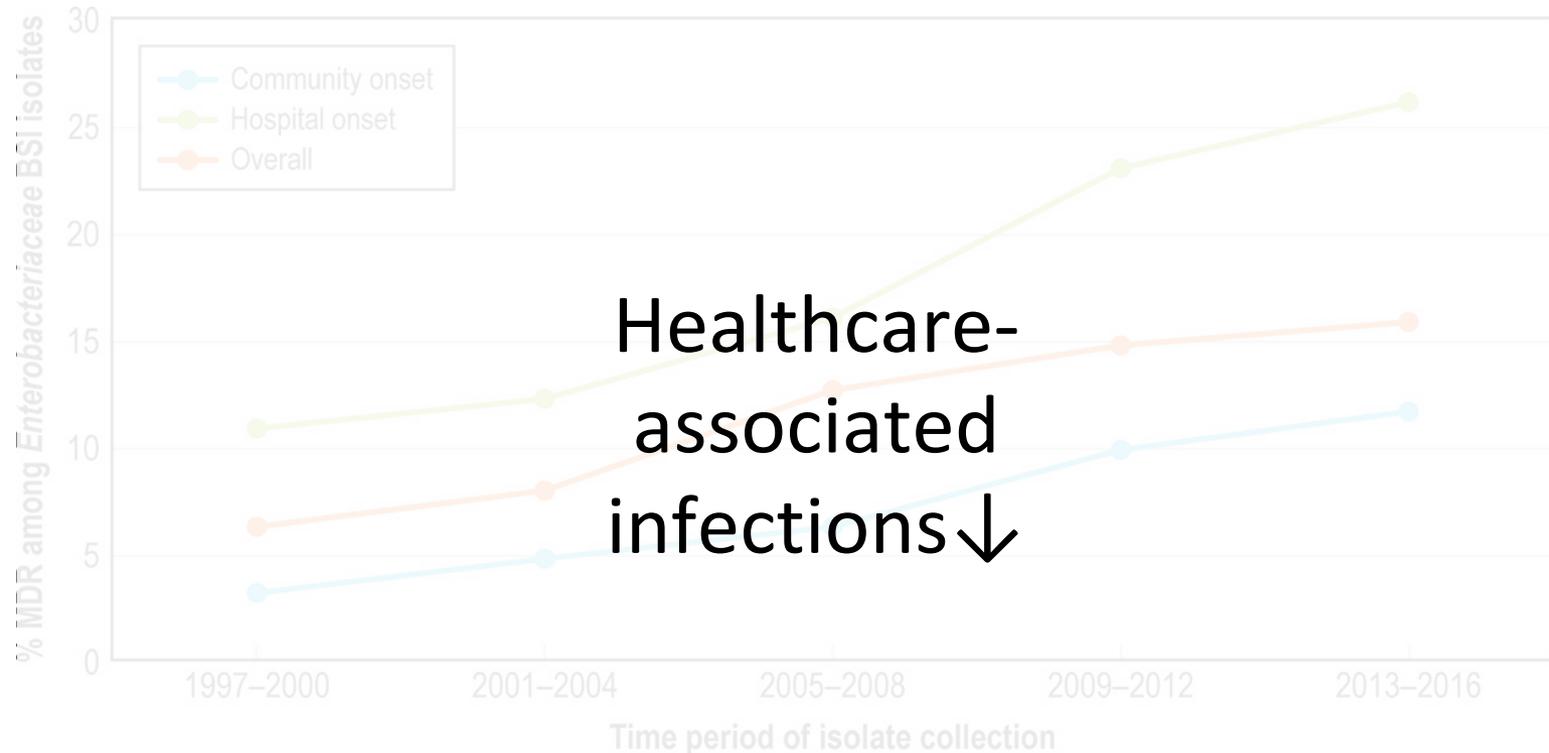
Vaccination

**Prevent healthcare
associated infections**

How do infection control measures prevent AMR?



How do infection control measures prevent AMR?



Transmission

...hand hygiene

...glove use

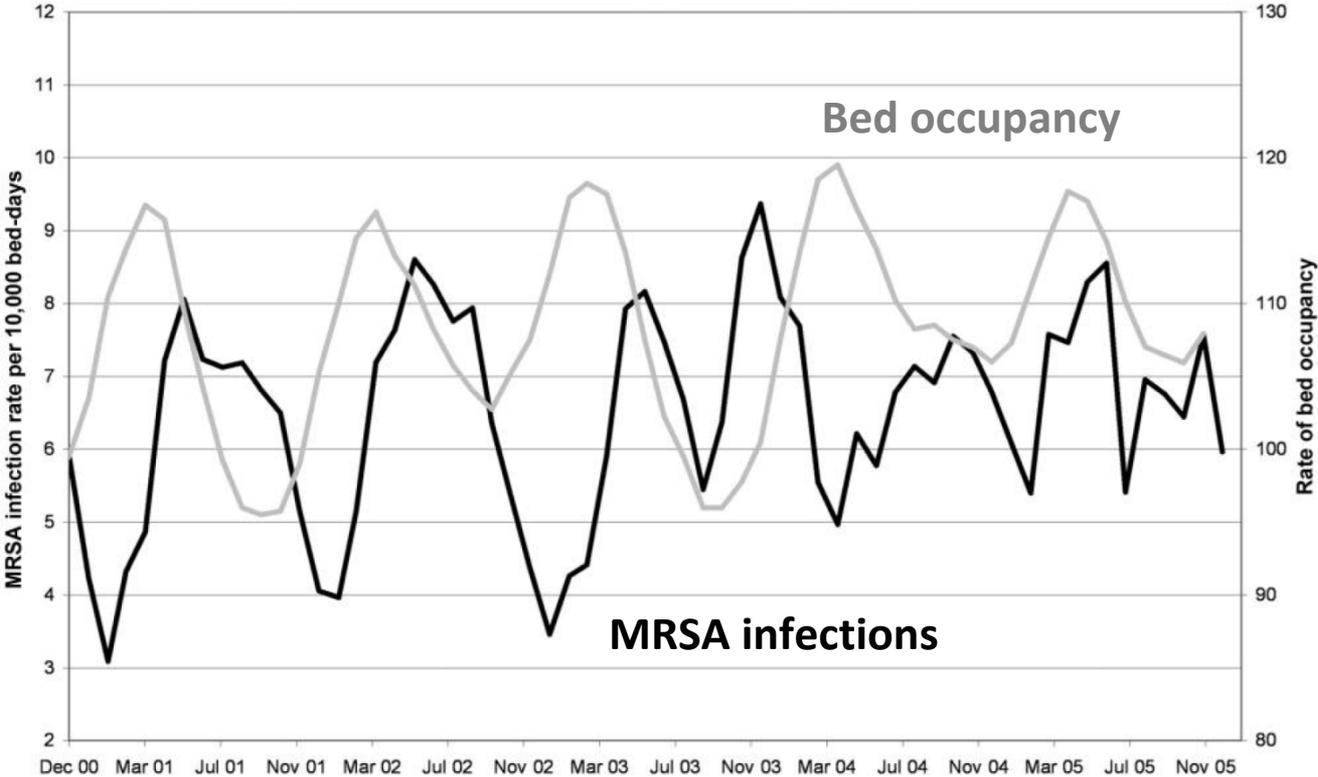
...work load

Infections with MRSA occurred during periods when nurses were, on average, overloaded by more than 25% in a surgical ICU in Slovenia

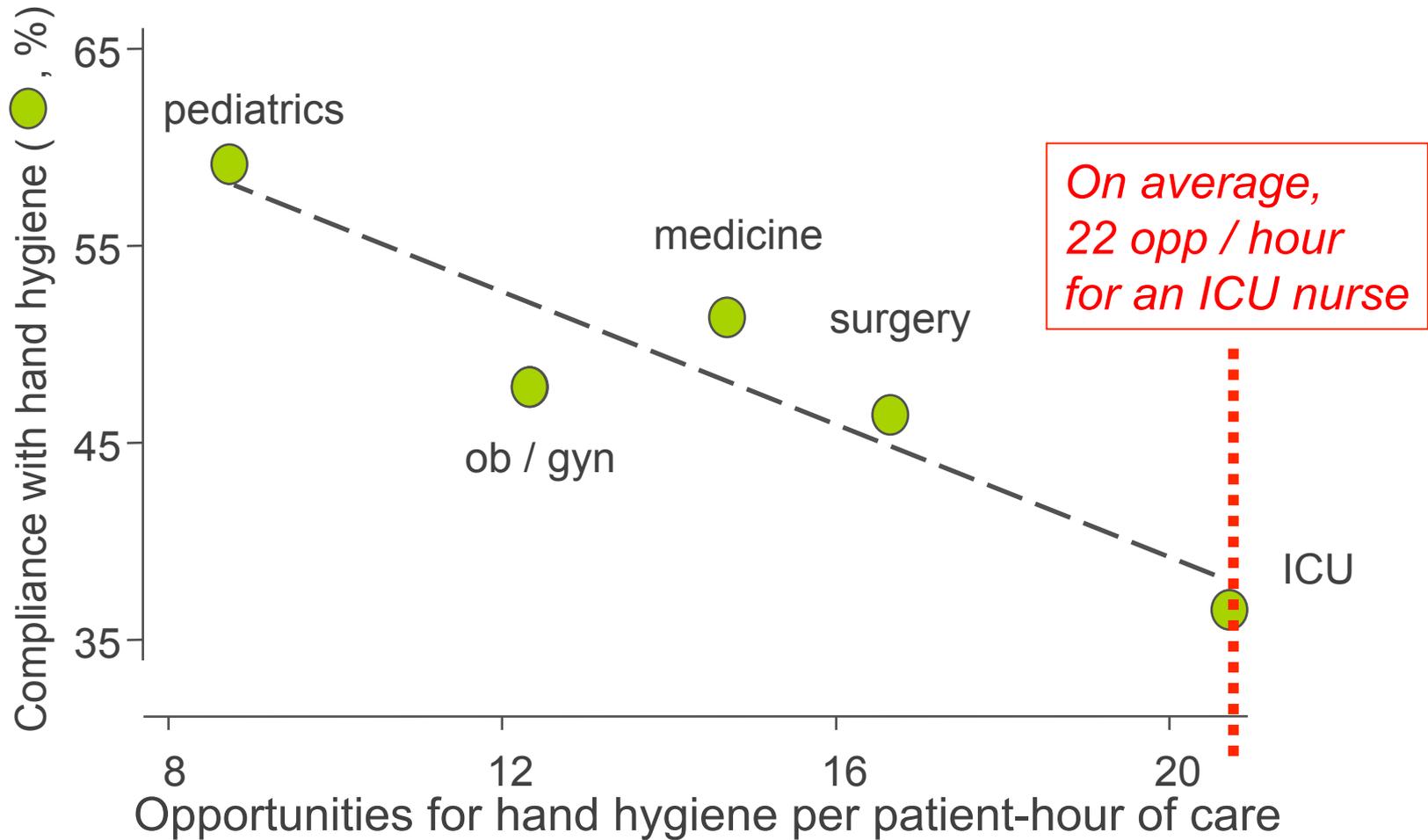
	Daily TISS score				Total
	≤ 150	151-200	201-250	>250	
Patient days, N	317	332	248	199	1096
MRSA transmissions, N	0	4	13	30	47
Nursing care days, N	1311	1980	1804	1783	6876
MRSA transmission per 100 nursing care days	0.000	0.202	0.721	1.682	0.683

TISS: Therapeutic Intervention Scoring System

Correlation of MRSA and bed occupancy in the medical wards of a University-affiliated hospital in Malta

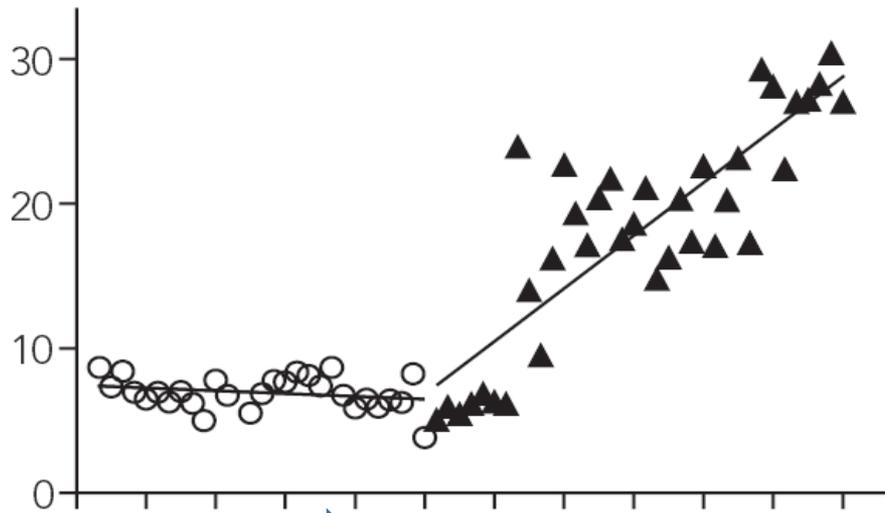


Hand hygiene opportunities and compliance

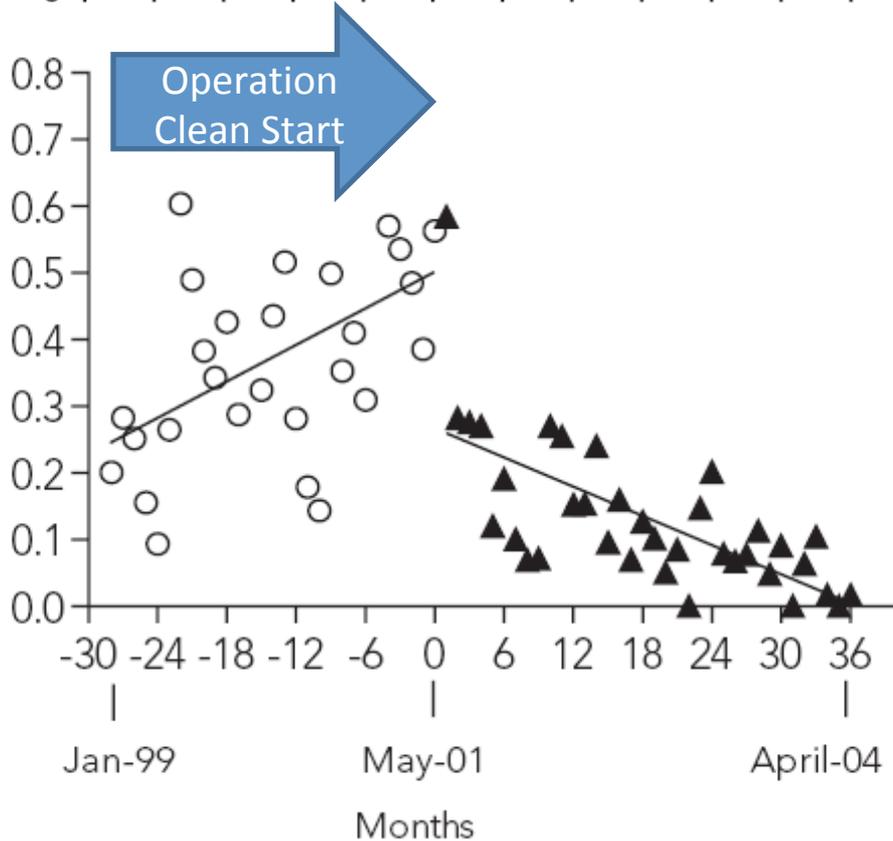


Contamination of gloves during patient care

MDR pathogens	Hands contaminated before room entry	Contaminated gloves	Hands after glove removal
Meticillin-resistant <i>Staphylococcus aureus</i>	3.2%	11.2%	3.3%
Vancomycin-resistant Enterococci	0.6%	10.0%	1.7%
MDR <i>Pseudomonas aeruginosa</i>	3.4%	17.4%	3.5%
MDR <i>Acinetobacter baumannii</i>	5.1%	29.3%	4.2%

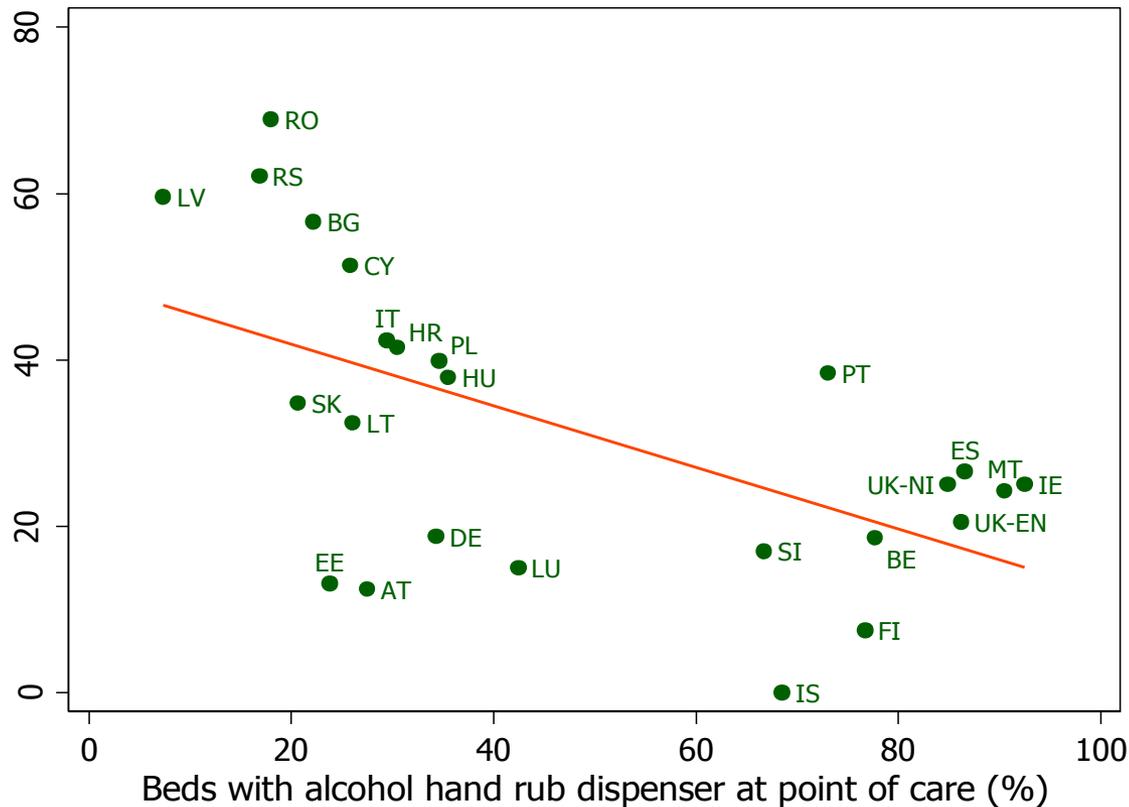


ABHR consumption
(L/1000 bed-days)



Clinical isolates of ESBL-producing *E. coli* and *Klebsiella* spp.
(N/100 discharges)

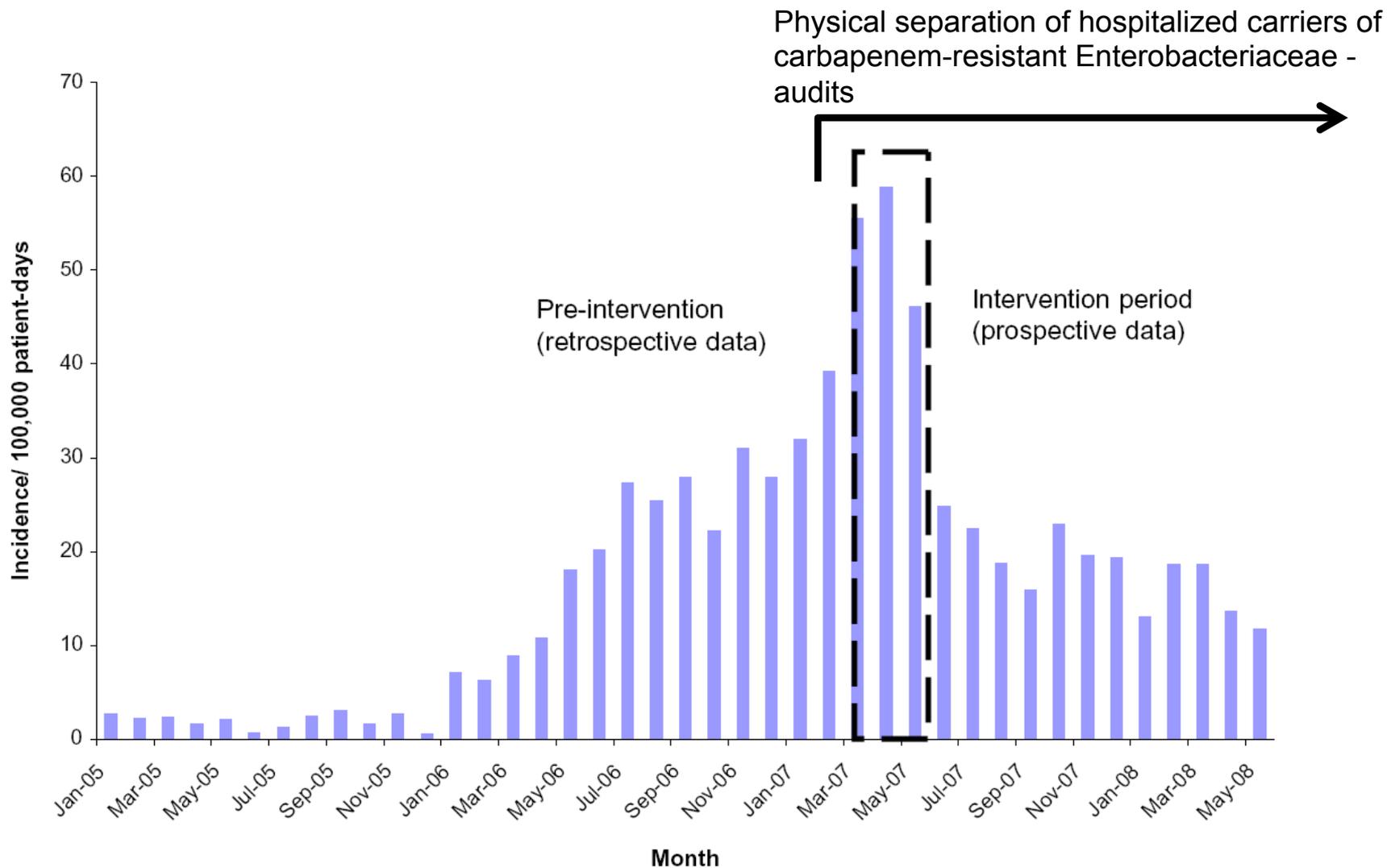
Correlation between beds equipped with alcohol hand rub and the composite index of AMR, ECDC-PPS 2016-2017



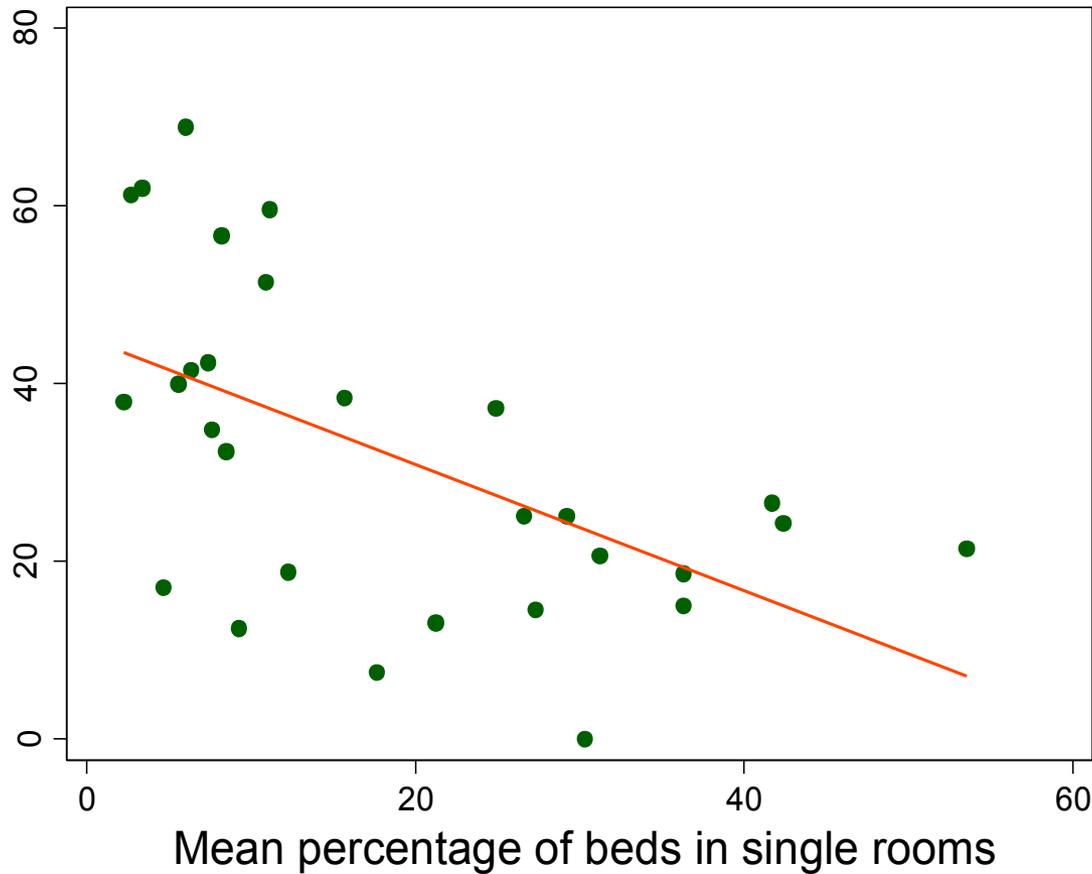
Transmission

...isolation precaution measures

Containment of a country-wide outbreak of carbapenem-resistant *Klebsiella pneumoniae* in Israel

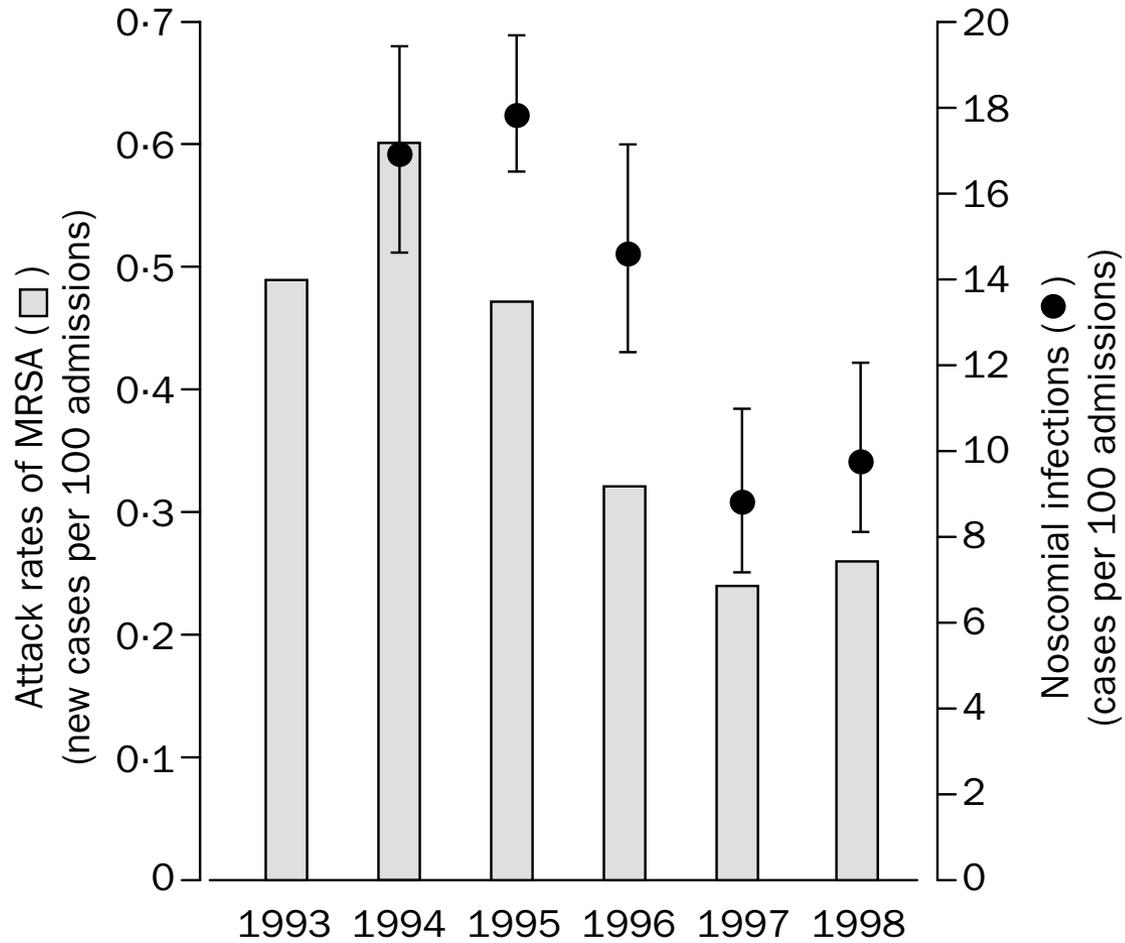


Correlation between single room beds and the composite index of AMR, ECDC-PPS 2016-2017

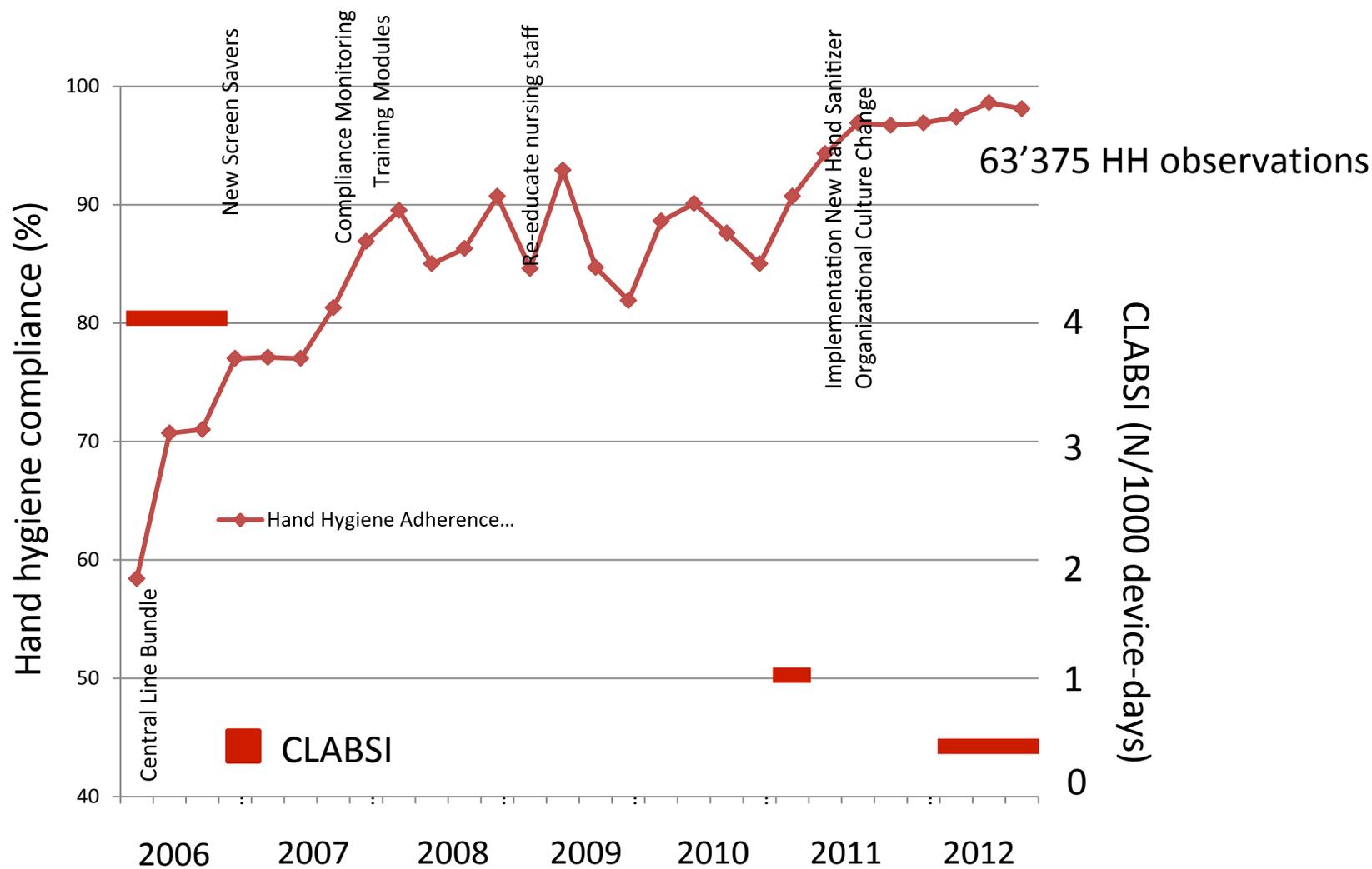


Healthcare-associated infections

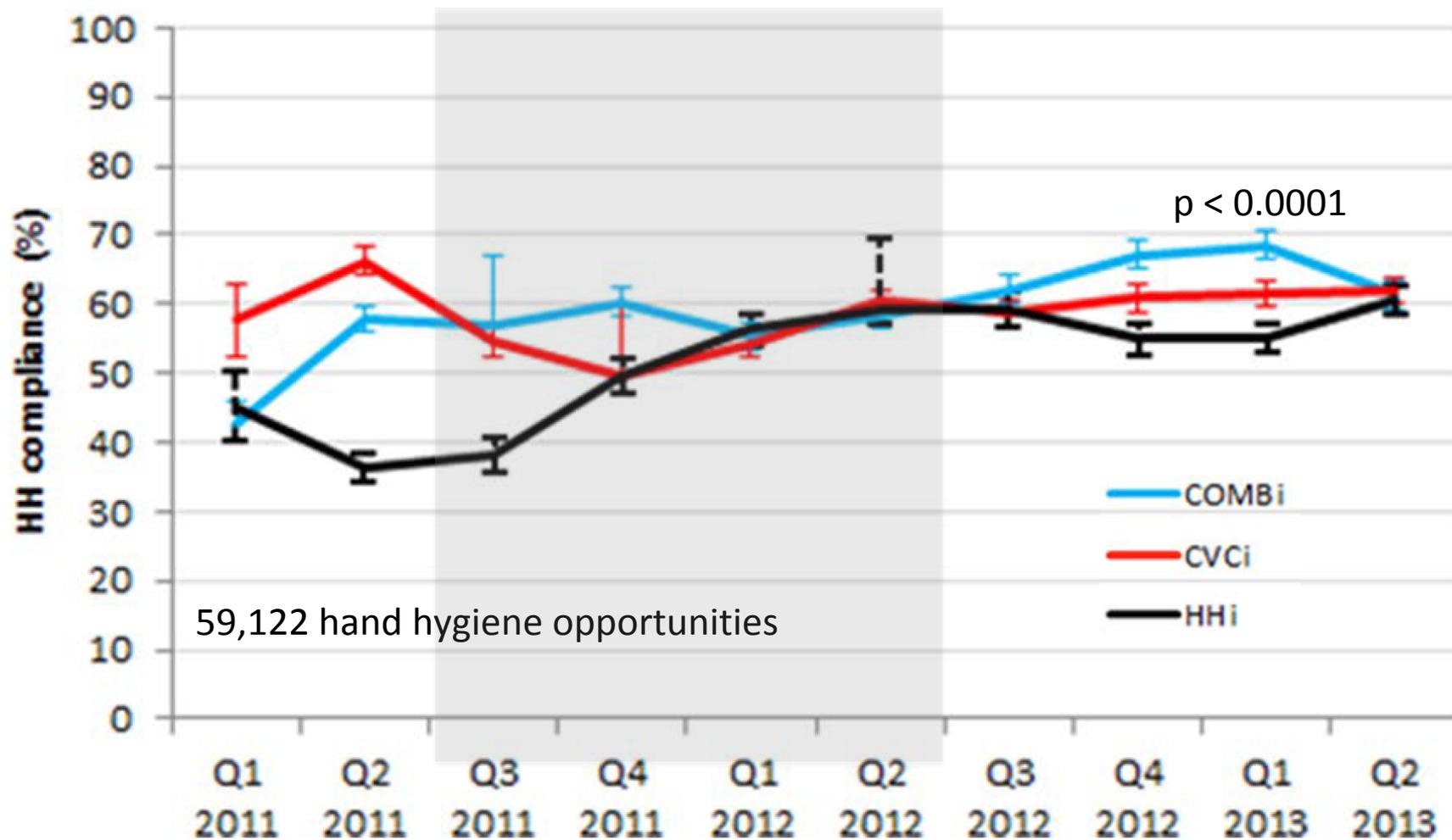
Is hand hygiene effective?



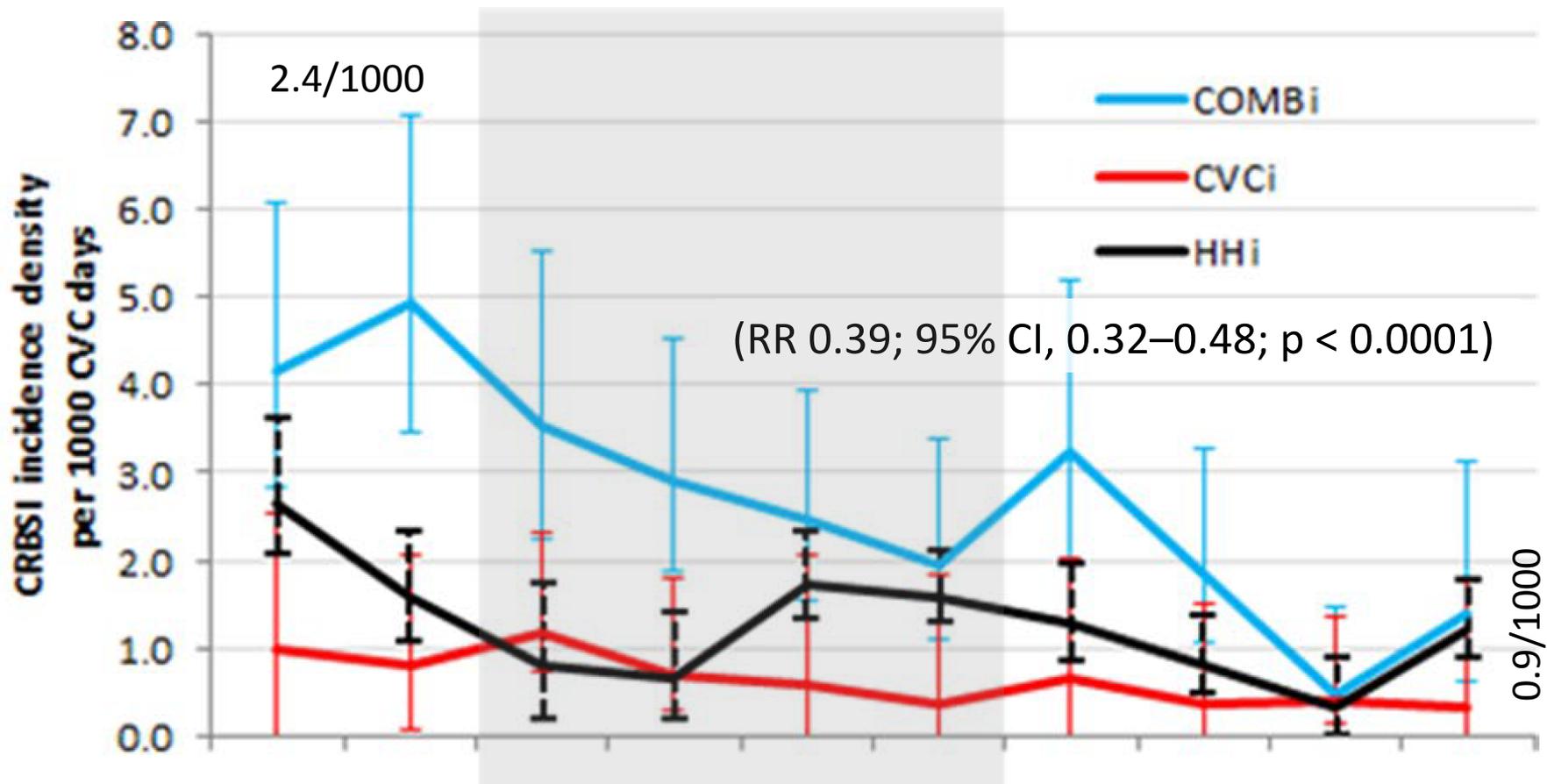
A multifactorial action plan improves hand hygiene adherence



PROHIBIT CLABSI prevention study



PROHIBIT CLABSI prevention study



Trend already during baseline [HRsub 0.93; (0.84–1.02) per quarter]

Cost

Hand hygiene Australia



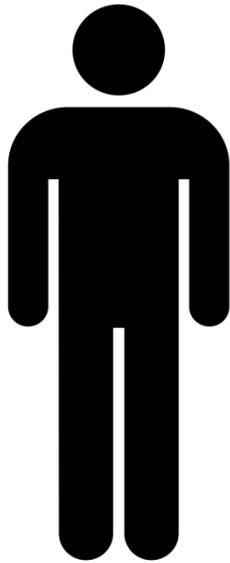
“The budget was about AUD\$3.20 per hospital admission - ie about two-thirds the price of a Big Mac”

The most effective for AMR prevention are
“standard precaution measures”

...which are the minimum of
best practice procedures

...and are not to be challenged
in cost-effectiveness
discussions

Behaviour change interventions do not need much technology...



...but social investment
(and an IPC team!)

Views on efficient and cost-effective IPC measures to address AMR in healthcare facilities

Thank you for your attention

Walter Zingg, PD, MD