

A 30-year sustained national IPC (NIPC) programme in Chile



Gobierno
de Chile

Dr. Fernando Otaíza O’Ryan MD, MSc

Chief of the NIPC Programme,

Ministry of Health

Chile

Plan



- **Description of the objectives of the NIPC program**
- **Description of the results of the NIPC program**
- **The components of the NIPC program**
- **Current status of each component**
- **Conclusions**



Chile at a glance



Politically is a democratic republic

Surface: 756102 km²

Population: ~17.000.000 pop (2009)

Life expectancy at birth: 82 years women, 76 years men

General mortality: 5.7/1000 inhabitants

Infant mortality: 7.1/1000 live births

Access to health services.

- 72.7% Public Insurance (FONASA)
- 16.5% Private insurance (ISAPRE)

World bank:

- GNP → USD 240,8 billion
- GNI per capita → USD 14,100



Objetives of the NIPC program

I. Prevent HAIs

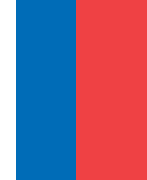
- Device/procedure associated HAIs
- Outbreak associated or prone HAIs

II. Prevent infections that may be transmitted to and from patients to HCWs

III. Other objetives

1. Decrease dissemination of antimicrobial resistance (AMR)
2. Decrease costs due to infections
3. Increase efficiency of measures and programs
4. Improve the response and decrease impact of infectious diseases crisis such as epidemics and pandemics
5. Prevent unnecessary damage to environment

Evaluation of impact in the decade 2000 – 2009 of selected HAIs



Infection	Indicator	rate 2000	rate 2009	reduction
Surgical Site Infection / laparoscopic colecistectomy	Infections / 100 surgeries	0,50	0,15	70,0%
Diarrhea in infants	Infections / 100 discharges	3,00	1,05	65,0%
Puerperal endometritis in vaginal delivery	Infections / 100 deliveries	1,25	0,52	58,4%
Central venous catheter bloodstream infections in children	Infections / 1000 days of central catheter	4,90	3,31	32,4%
Catheter associated urinary tract infections in internal medicine	Infections / 1000 days of use of urinary catheters	6,90	4,88	29,3%
Ventilator Associated Pneumonia in adults	Infections / 1000 days of mechanical ventilation	20,30	16,65	18,0%



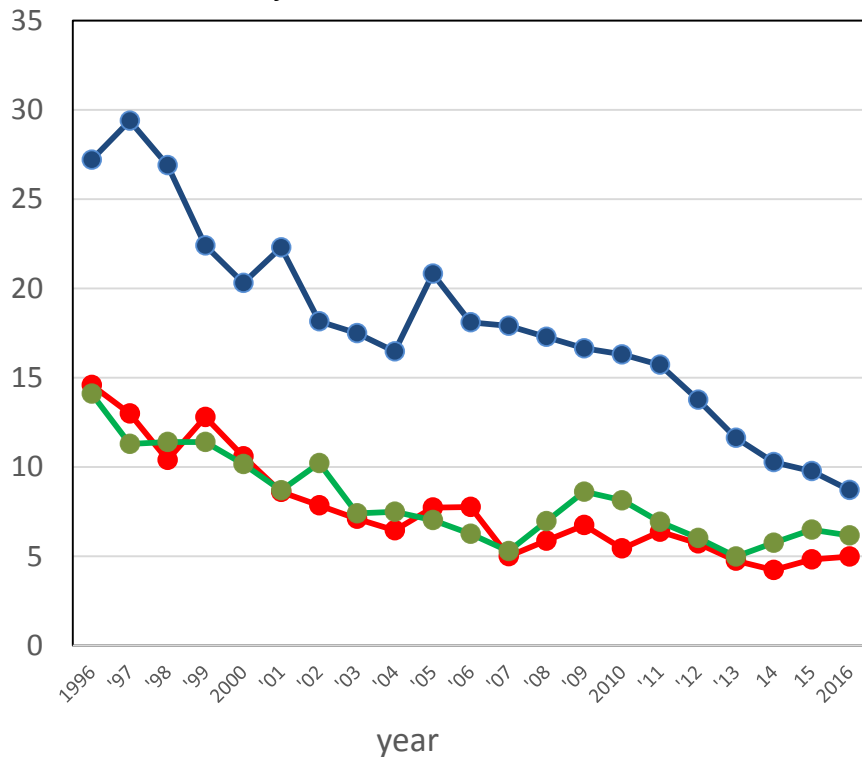
Trends of HAIs (examples)

Chile 1996 - 2016



VAP/1000 days of mechanical ventilation days
by type of patient 1996 – 2016

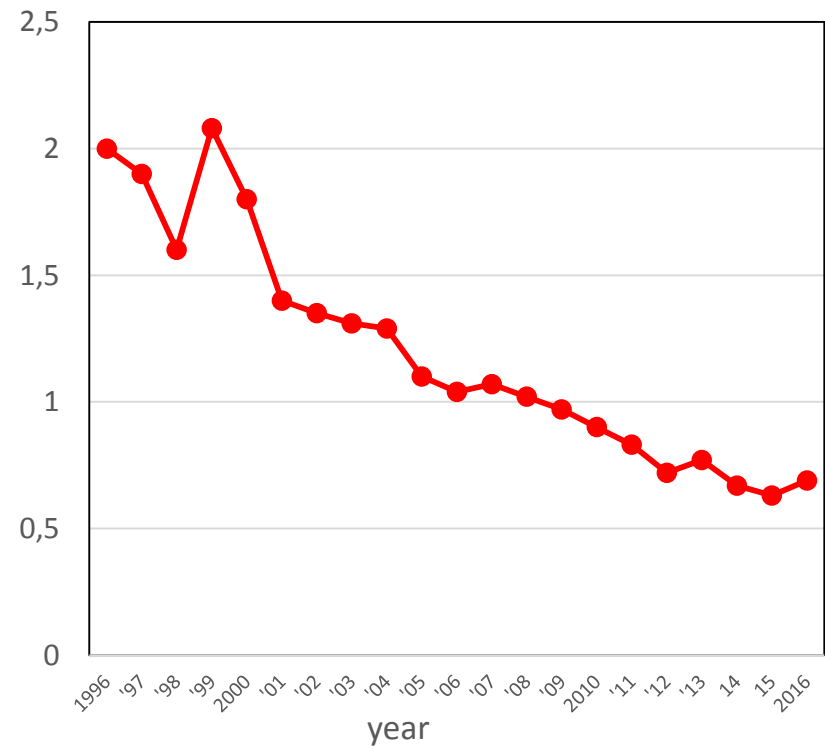
VAP/1000 days of MV



● adult ● pediatric ● neonatology

SSI/100 Cesareas 1996 - 2016

SSI/100 Cesareas



The NIPC program briefly

Started with 12/185 (6.5%) of hospitals

Response to notorious outbreaks

- Started in 1982
- Directed by the MoH
 - Trained doctors/nurses
- Continuous
- National (public/private)
- Regulated (required by law)
 - Components defined by MoH
- Strategic alliances/support
 - Universities
 - Scientific Societies
 - Leaders/Champions

Components

1. Organization
2. Surveillance
3. Guidelines
4. Training
5. External Evaluation

Principles

- Document success/failures
- “easy win” goals/targets

Organization

1982 began with 12 hospitals, no appointed staff except 1 nurse per hospital with one 5 day training on surveillance. Progressive inclusion of more facilities

Local IPC programs

- 94% public hospitals have an IPC program identified
- 85% the program is chaired by the medical director of the facility
- Professionals
 - All local IPC programs have doctors & nurses (395 professionals)
 - 75% doctors and 73% nurses are fully trained.

National IPC program

- MoH, in Dept of Quality and Safety of Health Care
- 2 doctors + 1 nurse
- Permanent / dedicated
 - Tasks
 - Regulate
 - Surveillance
 - Outbreak
 - Technical guidelines
 - Training
 - Assess local programs

Surveillance

began as full hospital - passive surveillance, poorly defined infections.
Indicators were cases/100 discharges

- National (public sector)
- 33 indicators
 - Target HAIs (rates)
- Online reporting
- $\geq 80\%$ of HAIs reported
(sensitivity of surveillance)
- National reference rates
 - Benchmarking

Characteristics

- Active methods
- Standardized
 - Definitions
 - Methods
- 395 nurses & doctors
 - Trained
 - Manuals
 - Meetings every 1-2 years



Guidelines

first guidelines were for environmental cleaning and isolation of infected patients. Soon after → guidelines for sterilization

- Evidence based
 - + WHO/PAHO, CDC guidelines
- Most have a regulatory component
 - not just recommendations
- Scope: National (public/private)



21 main guidelines on:

- **Sterilization/disinfection**
- **Standard Precautions**
 - Hand hygiene
 - Isolation
- **Prevention of device & procedure associated infections**
 - Such as: SSI, UTI, puerperal endometritis, C difficile
- **Outbreak management**
- **Containment of AMR**
- **IPC in epidemics/disasters**

Strategic target groups

- IPC professionals
- Local leaders
 - Medical directors
 - Chief of Departments
 - Supervisor nurses
 - Administrators
- Other leaders
 - Scientific Societies
 - Universities
- Clinical staff



Online (MoH)

- Standard precautions (20hr)
- Prevention & control of HAIs (120 hr)
- Outbreak management (120 hr)

Face-to-face 1-3 days (yearly) (MoH)

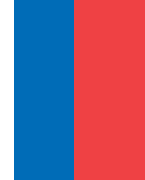
- Outbreak management
- Surveillance
- Assessment of programs

Masters degree & diplomas

- 2 years to 6-12 months

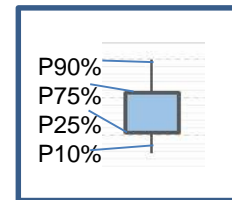
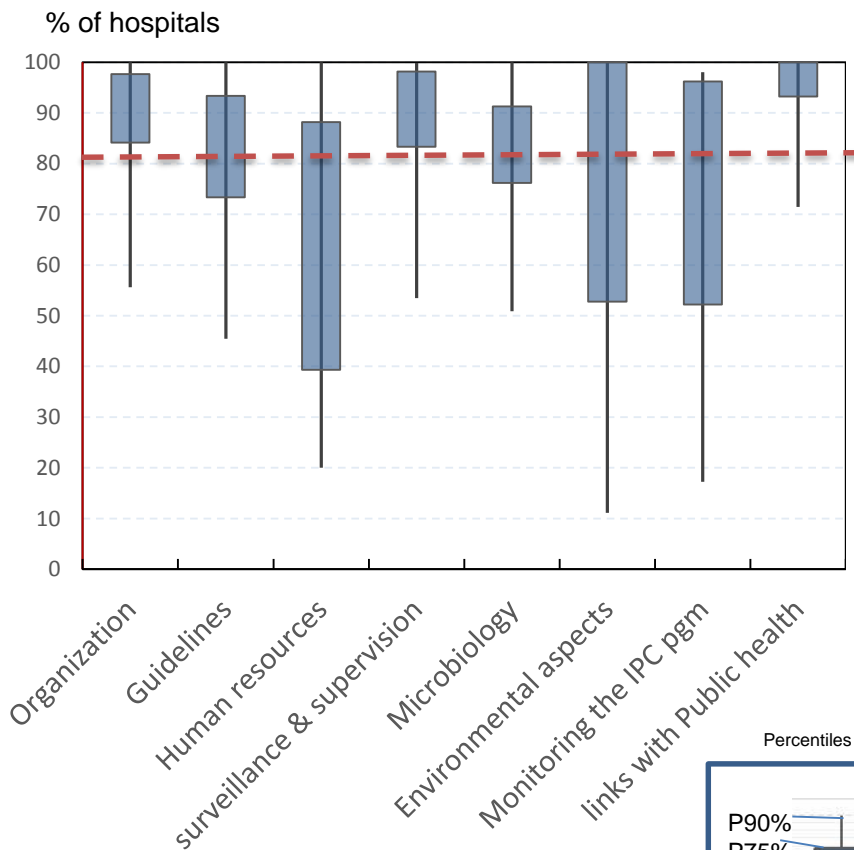
Several courses by universities / Scientific Societies

External evaluation



- **Checklist applied by professionals local Health Services**
 - Existing technical norms and regulations,
 - Old “*accreditation of IPC programs*” system,
 - PAHOs Rapid Assessment Guide,
 - WHO’s core components (2008)
 - Law of patients rights and duties,
 - National bylaw of hospitals and clinics
- **Regulated**
- **Trained surveyors**
- **Non punitive**
- **Every 2-3 years**

Results: First 55 external evaluation by component (2015 – 2016)



Conclusions

- The NIPC program documents reduction of rates of HAIs (decrease between 18% - 70%) in 10 years
- Local programs are established in all medium/large hospitals
- Main areas of development are
 - Organization
 - Surveillance
 - Guidelines
 - Training
 - External Evaluation

Lessons Learned

- Leadership of the health authority
 - Permanent staff
 - Knowledge, Evidence based decisions
 - Participation & communication
- Clear Goals
 - Defined scope
 - Core components
 - Ownership, empowerment
- Consider local needs
 - Surveillance
 - Multimodal interventions
- Document impact
 - “Easy win”

danke
thanks
gracias



fotaiza@minsal.cl



mauro.orsini@minsal.cl



mpohlenz@minsal.cl



Gobierno
de Chile

www.gob.cl

IAAS MINSAL Chile