

Prevalence of percutaneous injuries in health care workers in primary care settings

César Gutiérrez, Jorge Alarcón.

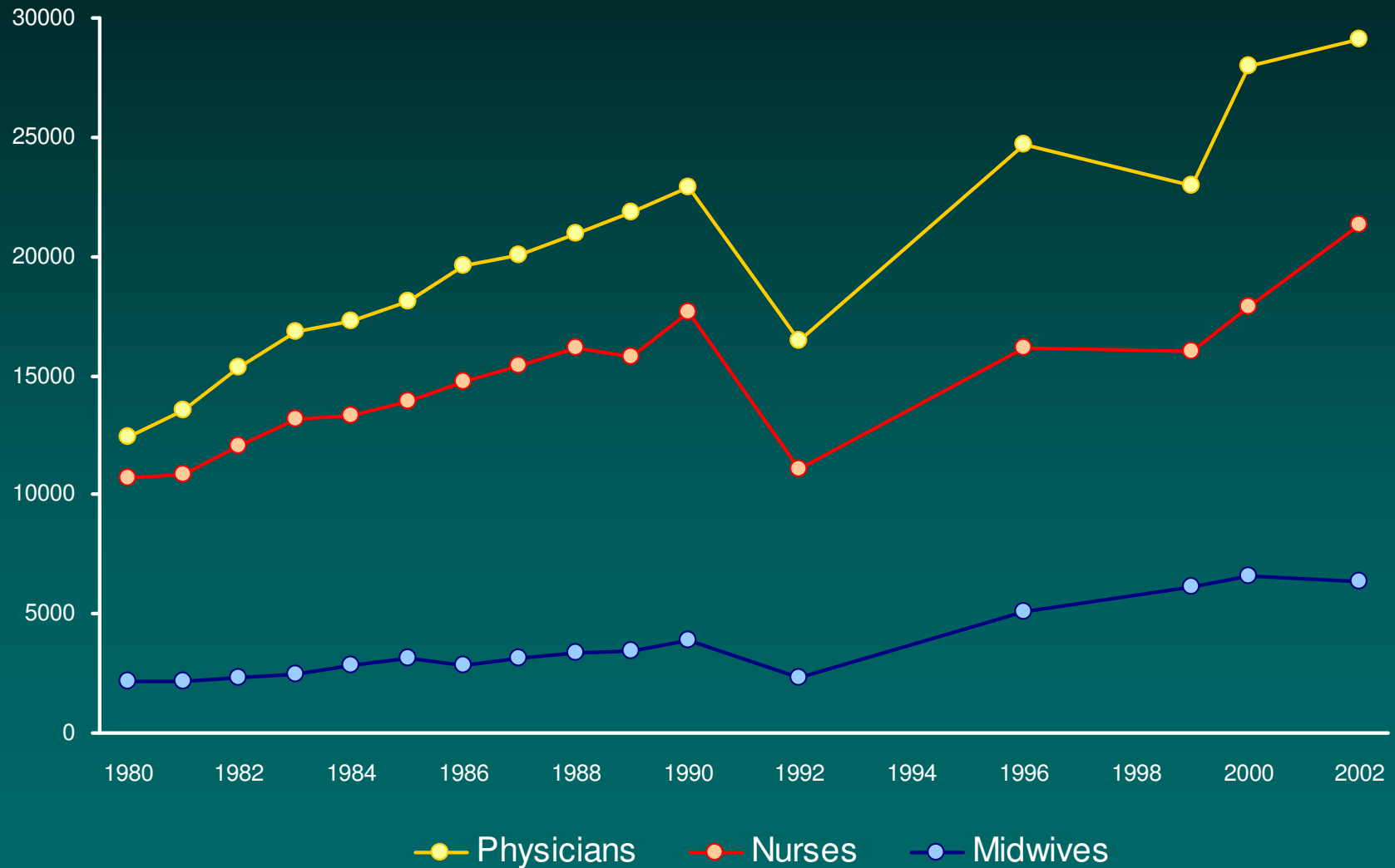
Universidad Nacional Mayor de San Marcos
Lima - Peru

Introduction

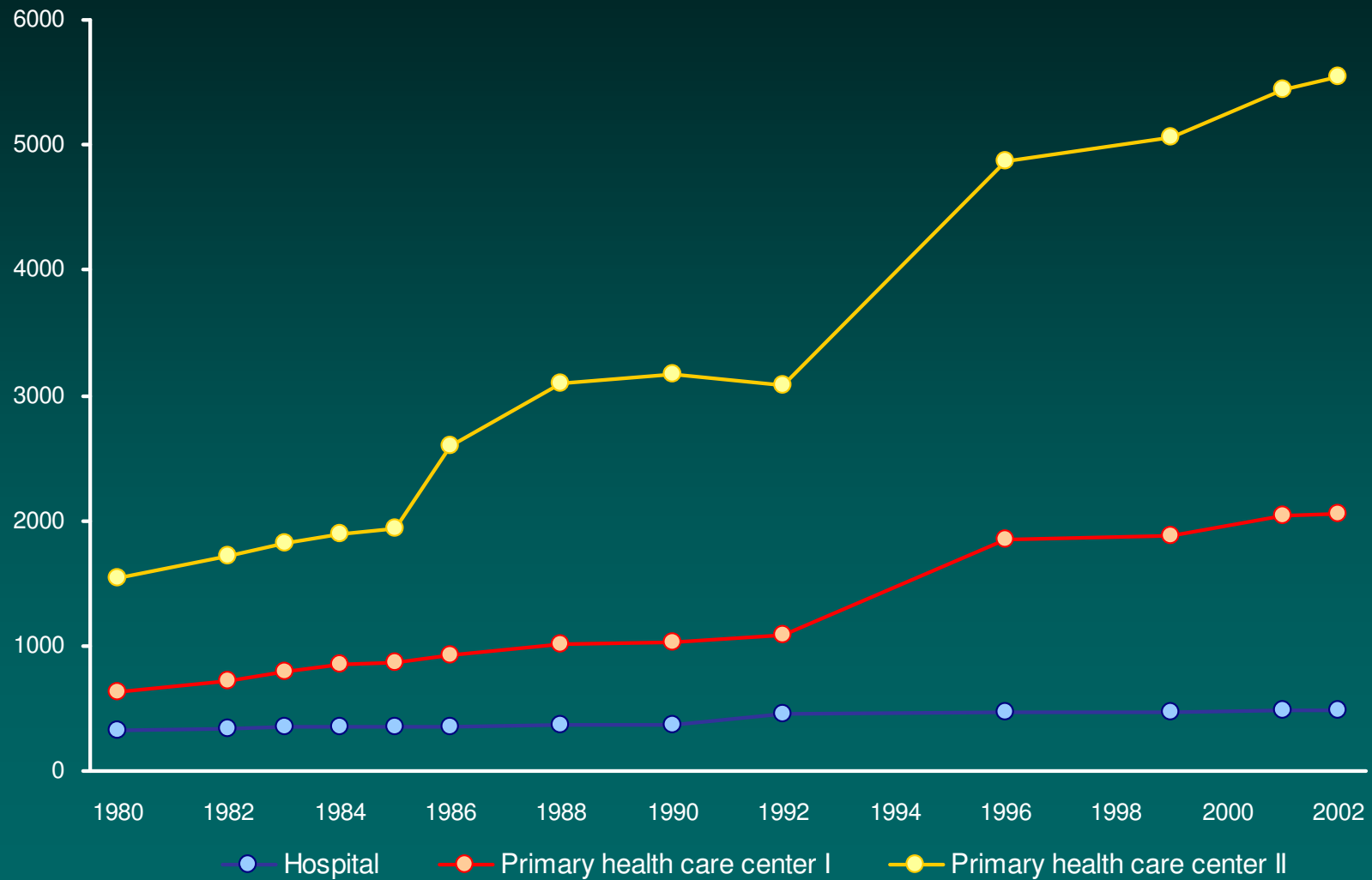
Health care workers (HCW) are at higher risk for accidents involving biological agents, thus the probability of acquiring infectious diseases is high.

The number of HCW at the primary care level has been growing in Peru over the last 25 years, yet reports of work-related injuries in this group are scarce.

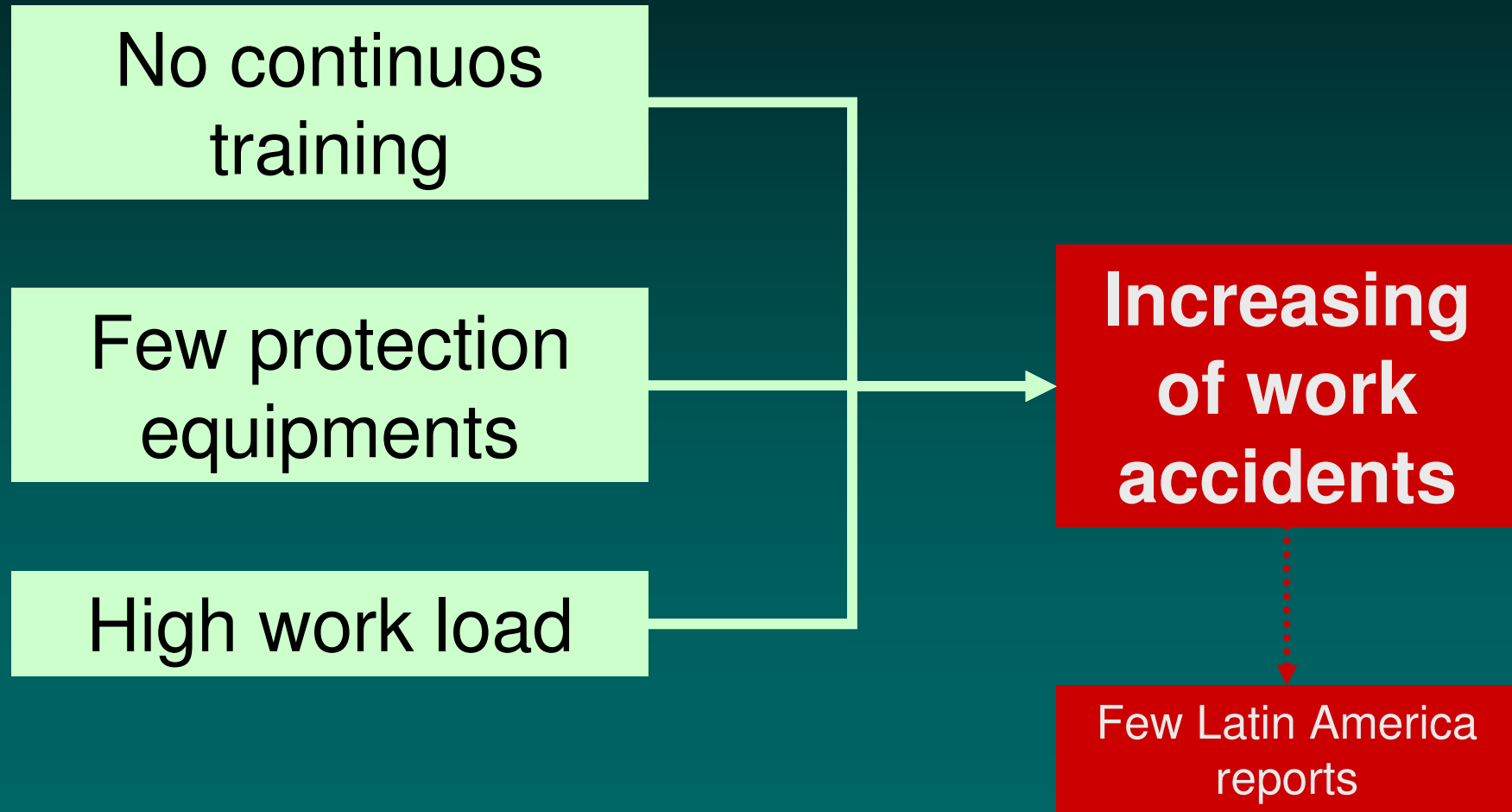
Evolution of the number of health care workers - Peru



Evolution of the number of health care facilities - Peru



Work conditions in Health Latin America



Objective

To determine the prevalence of percutaneous injuries among HCW in primary care settings in Lima, Peru.

Methods

Design: Cross-sectional survey.

Setting: Lima Department of Health.

Period: January - May 2005.

Subjects: Health care workers from 17 primary care settings.

Primary care settings – Lima Department of Health



Methods

Sampling: Systematic (prevalence 25%, confidence level 95%, population size 730, precision 5%, non-response 10%).

Instrument: Validated standardized self-administered questionnaire.

Analysis: Calculation of prevalence, descriptive statistics, OR.

RESULTS

General characteristics

HCW enlisted: 203 (98.1% of the calculated sample).

Female: 71.5%.

Age: 45.9±8.3 years old.

Occupation: Nursing assistant (38.9%)
Physician (27.3%)
Midwife (10.1%)
Laboratory technician (10.1%)
Dentist (8.1%)
Nurse (5.6%).

Employment: 17.1±7.8 years.

Prevalence of percutaneous injuries

Over the past five years, 34.0% HCW suffered at least one percutaneous injury (95% CI 27.5%-40.5%).

Prevalence according to occupations:

Laboratory technician	50.0%
Nursing assistant	40.3%
Dentist	37.5%
Physician	29.6%
Midwife	20.0%
Nurse	18.2%

Percutaneous injuries

Agent responsible of the injury:

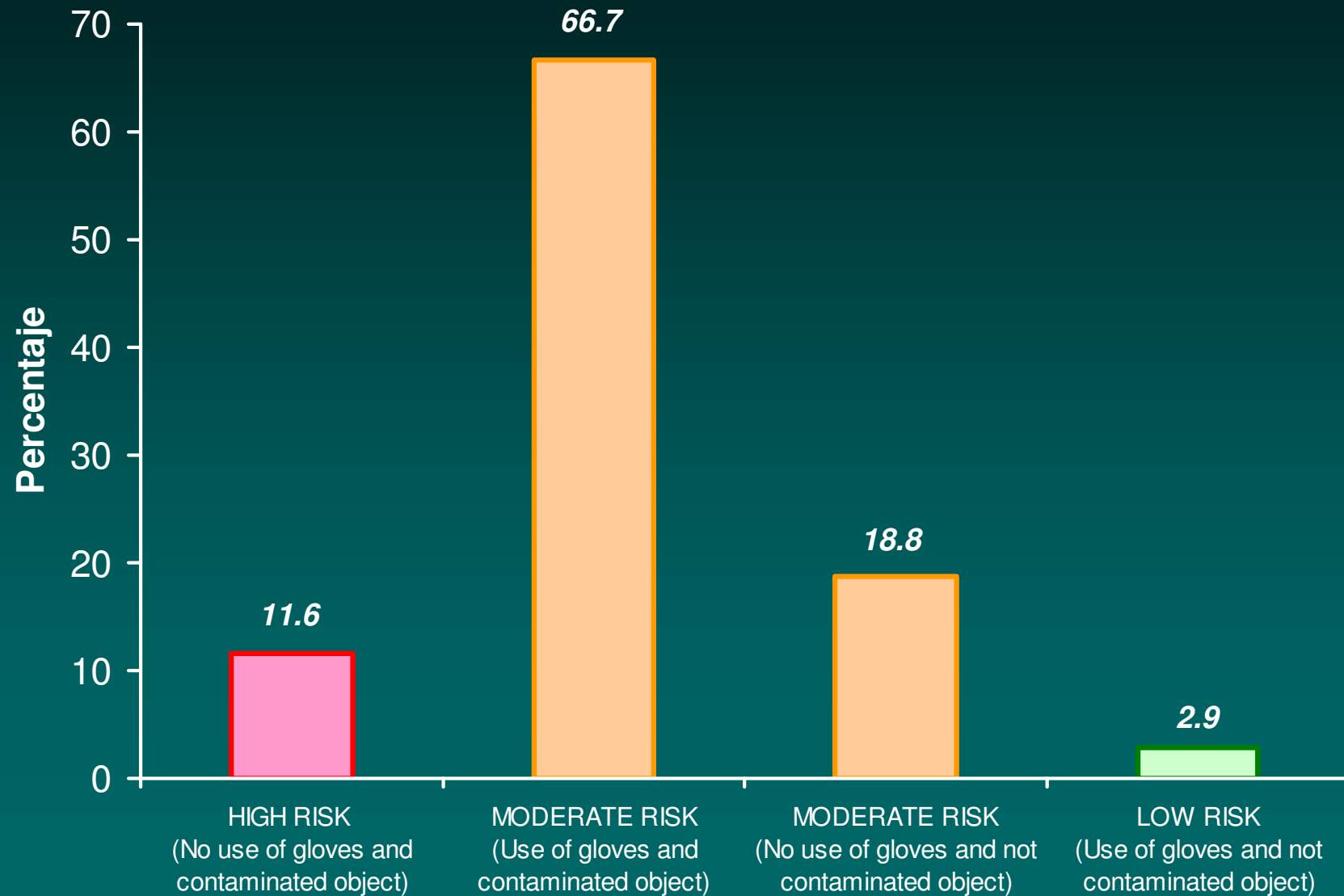
- Injection needles (69.6%)
- Suture needles (20.3%)
- Dental needles (5.8%)
- Glass objects (4.3%)
- Others (8.7%)

Corporal area: Hand (100%)

Depth of the injury:

- Superficial (less than 2mm, no bleeding) 40.6%
- Intermediate (2 to 5mm in depth, little bleeding) 52.2%
- Deep (5mm or more, profuse bleeding) 7.2%

Potential risk of the injury



Percutaneous injuries

Report of the accident:

- Did not report (69.6%)
- Immediate superior (26.1%)
- Responsible of epidemiology (4.3%)

Tests made to injured HCW:

- HIV 27.5%
- Hepatitis B 7.2%

Management of the injury:

- In 14.5% the infection state of the source patient was searched (two HIV positive).
- Only one HCW received antiretrovirals.

Associated factors to percutaneous injuries

	Factor	Adjusted OR (95% CI)
<i>Age</i>	≥ 45 years	
	< 45 years	5.9 (1.8-19.5)
<i>Time of employment</i>	≥ 20 years	
	< 20	0.4 (0.1-1.3)
<i>Gender</i>	Male	
	Female	2.0 (0.7-5.8)
<i>Occupation</i>	Nurse	
	Midwife	1.0 (0.1-7.5)
	Physician	3.4 (0.6-21.0)
	Dentist	9.2 (1.0-82.4)
	Nursing assistant	4.1 (0.7-23.1)
	Lab technician	2.1 (0.2-19.0)
<i>Biosafety training</i>	Yes	
	No	0.9 (0.4-2.2)

Conclusions

The prevalence of percutaneous injuries is 34.0% among HCW in Lima, Peru. The report and management of these injuries is not adequate. Aside from the relationship between age and percutaneous injuries, no other associated factors were found.