

Infection control and workplace safety: Knowledge and practices in the Bloemfontein Central Laundry



Group 8:

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Introduction

- Bloemfontein Central Laundry services both the public (health facilities, EMS) and private sector (resorts).
- No formal provincial guidelines or policies for infection control and safety practices for laundries.
- Laundry workers (LW) are exposed to different hazards during the course of their work (e.g. biological, chemical, ergonomic, physical and psycho-social).

Background

The following diseases have been reported to be contracted by laundry employees

- Hepatitis A*, B** and C*
- Chickenpox***
- Salmonella****
- Back and other musculoskeletal injuries

*Borg MA et al, Occupational Medicine, 1999

** Sepkowitz KA, Annals of Int Med, 1996

***Yeon-Soon Ahn et al. Industrial Health, 2008

****Standaert SM et al, Infection Control and Hosp Epi, 1994

Background continued

Occupational Health and Safety Act, No 85 of 1993

The employer is required by law (Sec 8)

- to provide and maintain, as far as is reasonably practicable, a working environment that is safe and without a risk to the health of the employees.
- to provide vaccination to prevent hepatitis B
- to provide suitable personal protective equipment (PPE) (e.g. safety goggles, gloves, etc.)
- For users of machinery, employers shall conduct a risk assessment of conditions that may arise from the work activities.

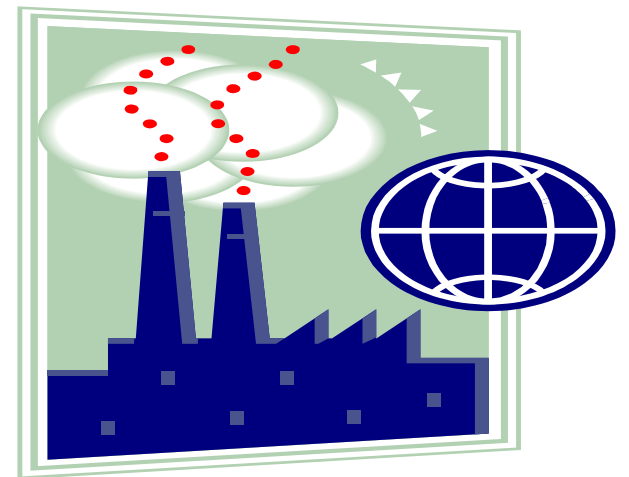
Rationale



- Observation:
 - LW are not adhering to infection control (IC) and safety practices
- Assumptions:
 - Lack of knowledge of the use of PPE and safe practices to prevent hazards/diseases (e.g. Needle-sticks, blood and body fluid exposures, back injuries)
 - Risk taking behaviour/practices

Aim of the study

- To investigate knowledge and practices relating to IC and safety of the employees in the Bloemfontein Central Laundry



Objectives of the study

- To identify IC and safety practices important to protect health care workers at the laundry
- To determine LW reporting of work place hazards related to IC and safety
- To assess LW knowledge and practices regarding IC and safety
- To assess current training and identify areas where LW might benefit from additional training in IC and safety practices

Methods

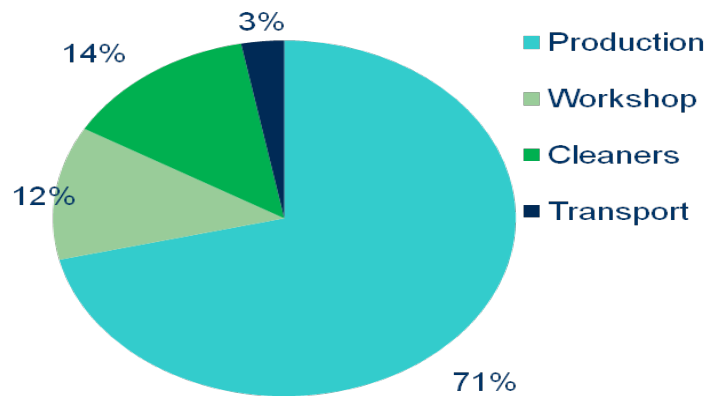
- Literature, other relevant documents reviewed
- Research questionnaire developed, piloted and adapted
 - Demographics, reporting, knowledge and practices
- Participation was on a voluntary basis:
 - Informed consent was obtained
 - In the small sections, i.e. 4 or less, (nurse, transport, workshop/boiler and cleaners) all LW were asked to participate.
 - In larger sections, i.e. 16, half of LW were asked to participate.
 - Literate respondents: self-administered
 - Illiterate respondents were interviewed (~16%) to complete questionnaire

Methods continued

- Authorisation obtained from the Head, Laundry Services, and Head of BFN Laundry
- Joint information session with management, supervisors and unions
- Information session with supervisors and employees
- Data analysis: univariate analysis

Results: Respondent Demographics

Section where respondents work



Years worked in BFN laundry:

≤1 year –	23.5%
1 to ≤ 5 years –	32.4%
>5 to ≤ 10 years	16.2%
>10 years –	27.9%

68/128 (53.1%) of LW participated

Age:

Younger than 20 – 2%

20-29 year – 13%

30-39 years – 38%

40-49 years – 21%

50-59 years – 22%

60 years and older – 4%

Sex:

Female – 60% **Male 40%**

Race:

Black – 78%

Coloured – 12%

White – 9%

Asian – 1%

Results: Respondent Demographics

- Vaccinations reported:
 - Hepatitis B – 85%
 - Influenza – 53%
- 84% reported being examined at OH clinic when they started to work in the laundry
- Reported incident in past two years:
 - Needle stick injury – 12% (8 of 68)
 - Another type of injury at work – 21% (14 of 68)



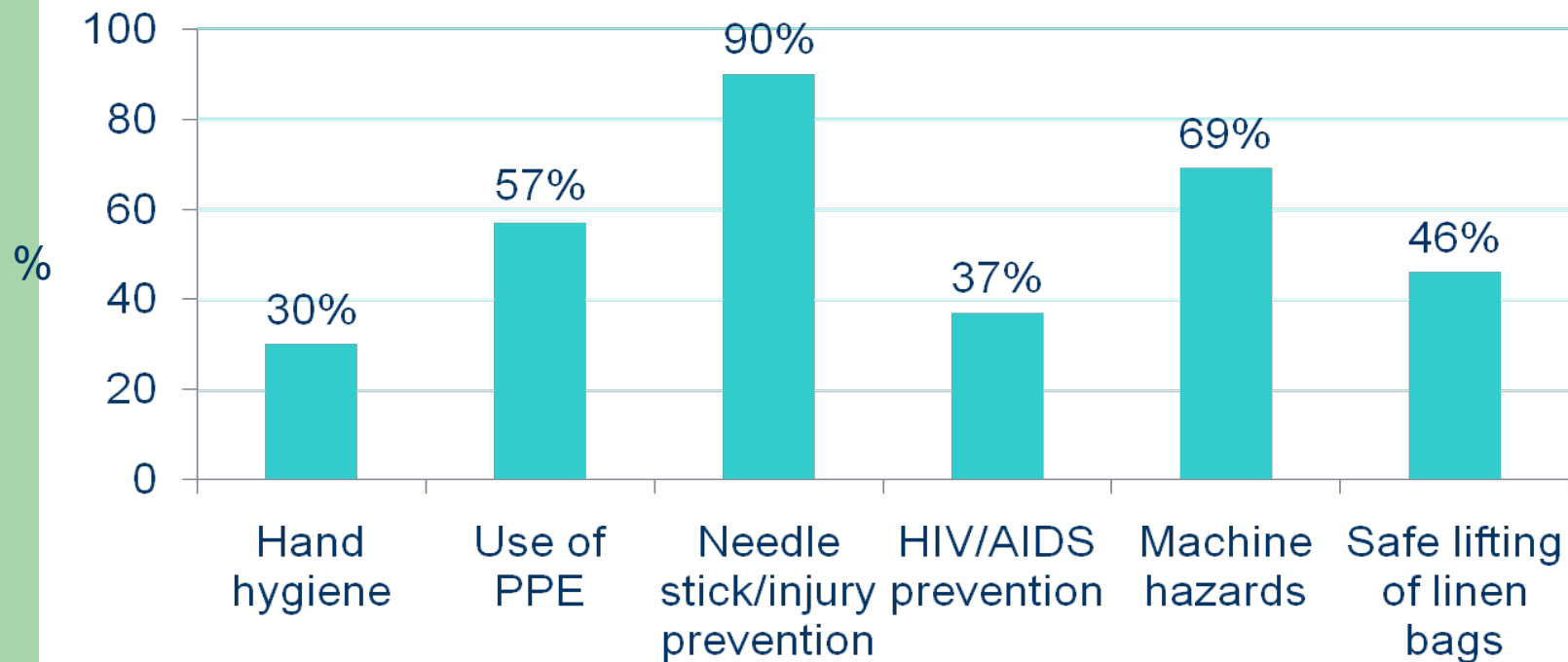
Results: Reporting IC and safety (H&S) problems at the laundry

Reporting by H&S problems	Yes
Knowledge: I know how to contact the OH clinic	85%
Practice: I report H&S problems to OH clinic - always	57%
- never	16%
Knowledge: I know how to contact my H&S representative	82%
Practice: I report H&S problems to H&S rep - always	56%
- never	16%
Of those with needle stick injury, number who reported incident	7/8 (88%)
Of those with other work-related injuries, number who reported	13/14 (93%)

Results: Reported use of IC and safety practices

	Never	Some times	Always
I use eye protection	72%	13%	15%
I change my procedures with infected linen	37%	13%	50%
I dispose of sharps in a sharps container	30%	28%	42%
I wash my hands before and after eating, gloving and working	8%	11%	81%
I use guards on machinery	47%	12%	41%
I ask for help when lifting heavy objects	28%	12%	60%
I get supervision on safe working practices	31%	28%	41%

Results: Reported lack of training (knowledge) on IC and safety practices



Percentage of respondents who reported that they had not receiving training by specific topic

One of the lessons learnt: Importance of questionnaire design

- N95 respirators should be used by all LW in the production section most of the time
- Questionnaire item:
“Do you use an N95 respirator?”: only 15% replied yes
We should have had a question that asked why?
 - I don't know what an N95 respirator is?
 - I don't like to use – uncomfortable?
 - Management does not supply respirators?
 - Question does not apply equally to all?



One of the lessons learnt: Importance of involving unions

- Plan to engage employees
- Union involvement critical for success

Limitations of the study

- Bias:
 - Self-reported questionnaire
 - Volunteer nature of the study
 - Interviewer
 - Unequal risk across all sections in the laundry
- Some questions did not measure what they were intended to (e.g. do you wear N95 respirator?) which limited the ability to draw conclusions
- Numbers too small to allow for bivariate analysis

Conclusions and Recommendations

- Practices important to protect health care workers at the laundry were identified
- Discrepancy between reported knowledge and practices
 - e.g., 82% know how to report to H&S but only 56% actually report
- Increased training needed on IC and safety practices
 - needle stick injury
 - machinery safety
 - use of PPE
 - safe lifting practices
 - HIV/AIDS prevention
 - Hand hygiene
- Encourage LW to get supervision on safe working practices.
- Policy development on IC and safety practices is needed

Thank You!

Acknowledgements

- FS Dept of Health
- Laundry Management
- Supervisors
- Unions
- All participants
- Mentors and program –
 - CHSR&D, POHU, SA
 - UBC, Canada

