

# **THE HARSTAD INJURY PREVENTION STUDY: PREVENTION OF BURNS IN CHILDREN 0-4 YEARS**

**EVALUATION AFTER 25 YEARS**

**HARSTAD – NORWAY**

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**LONDON  
SAFETY2010**

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# **HARSTAD (23000)**

## **International Safe Community 1994**

**1st in Norway, 11th in world**





# THERMAL AND CHEMICAL INJURIES IN HARSTAD 1985-89

COUNT

14

12

10

8

6

4

2

0

Burns

Chemical injuries,  
poisonings

0

1

2

3

4

5

6

7

8

9

10

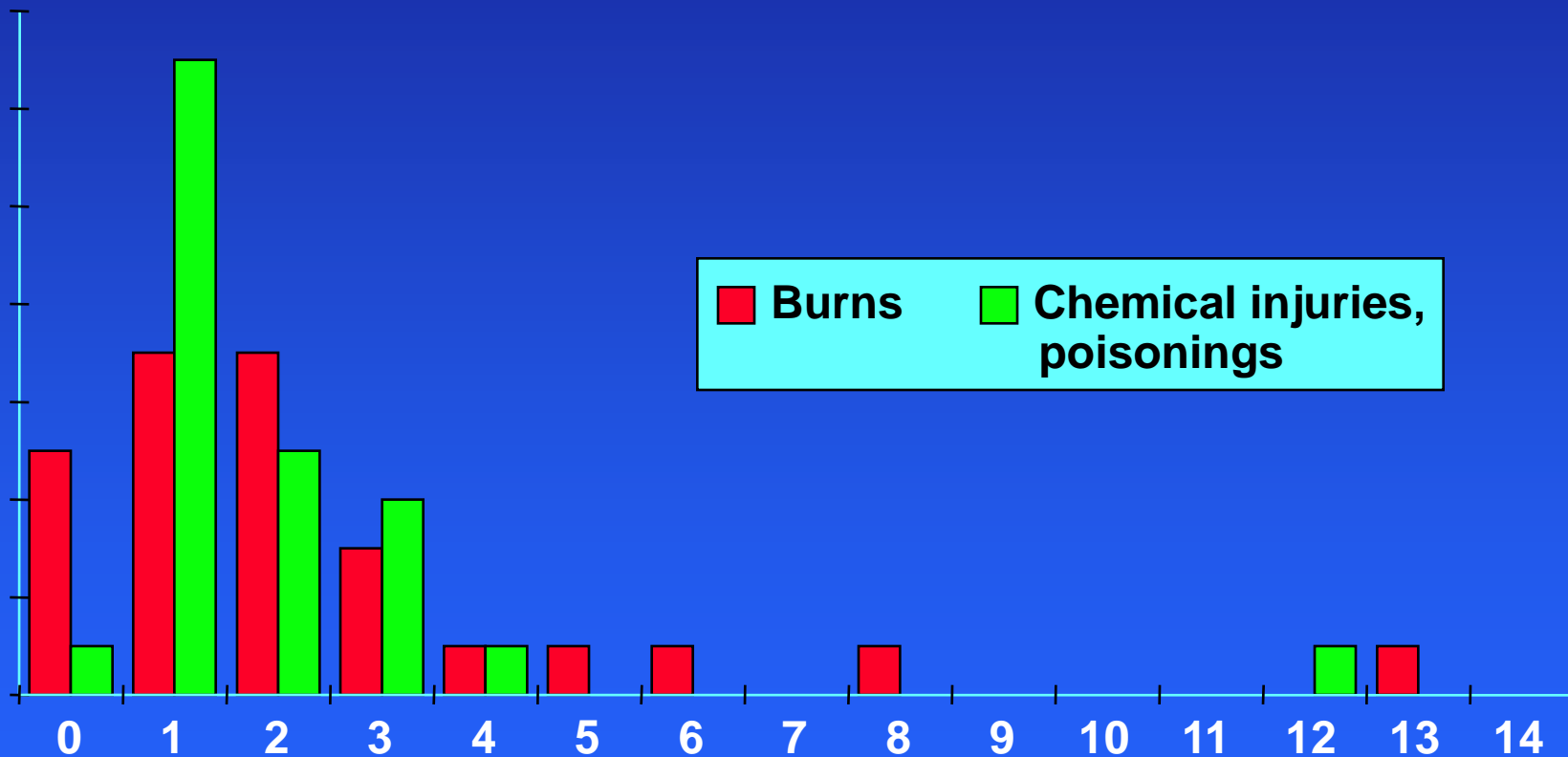
11

12

13

14

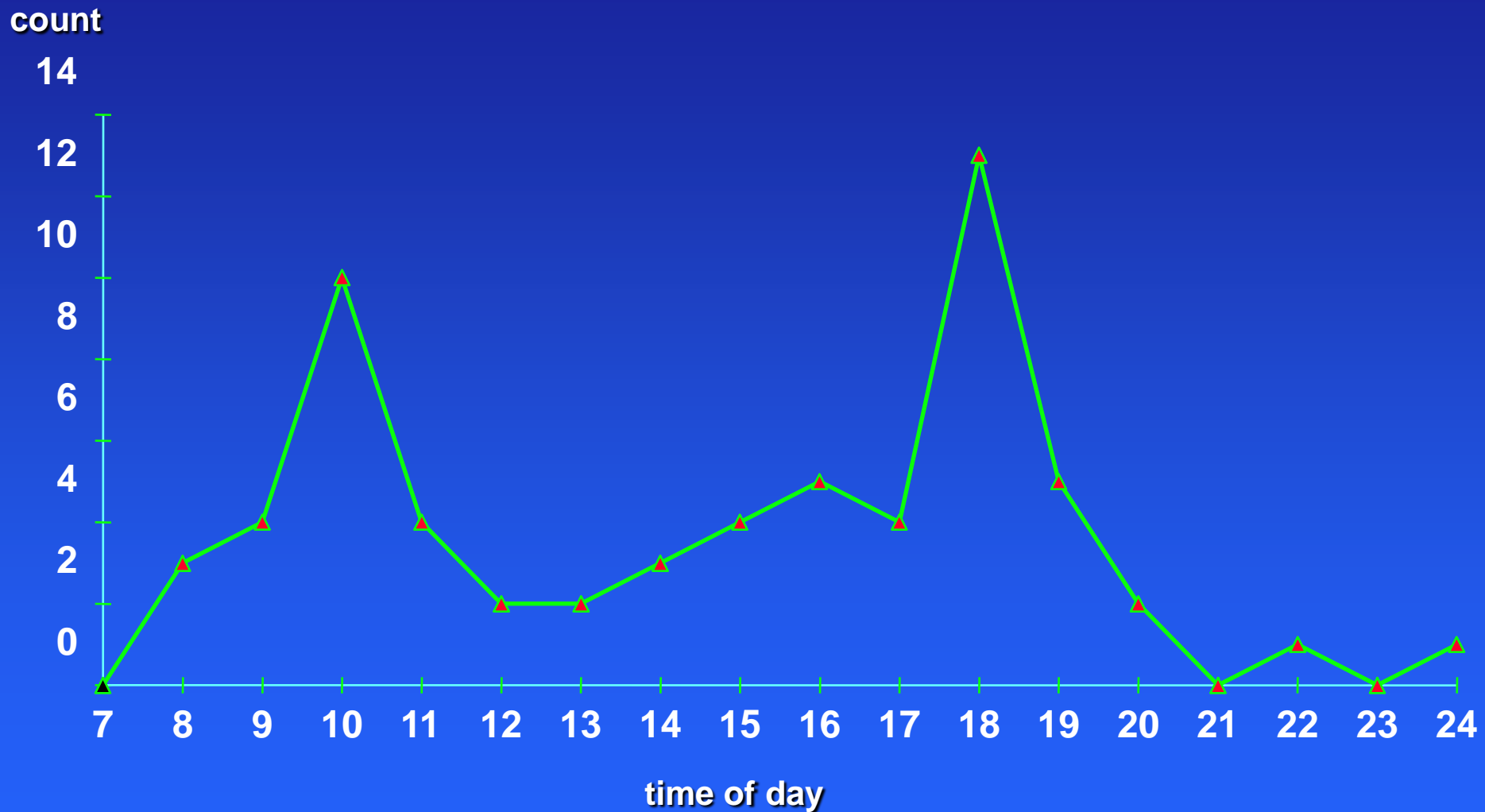
AGE



## Scalding Injury in Toddler

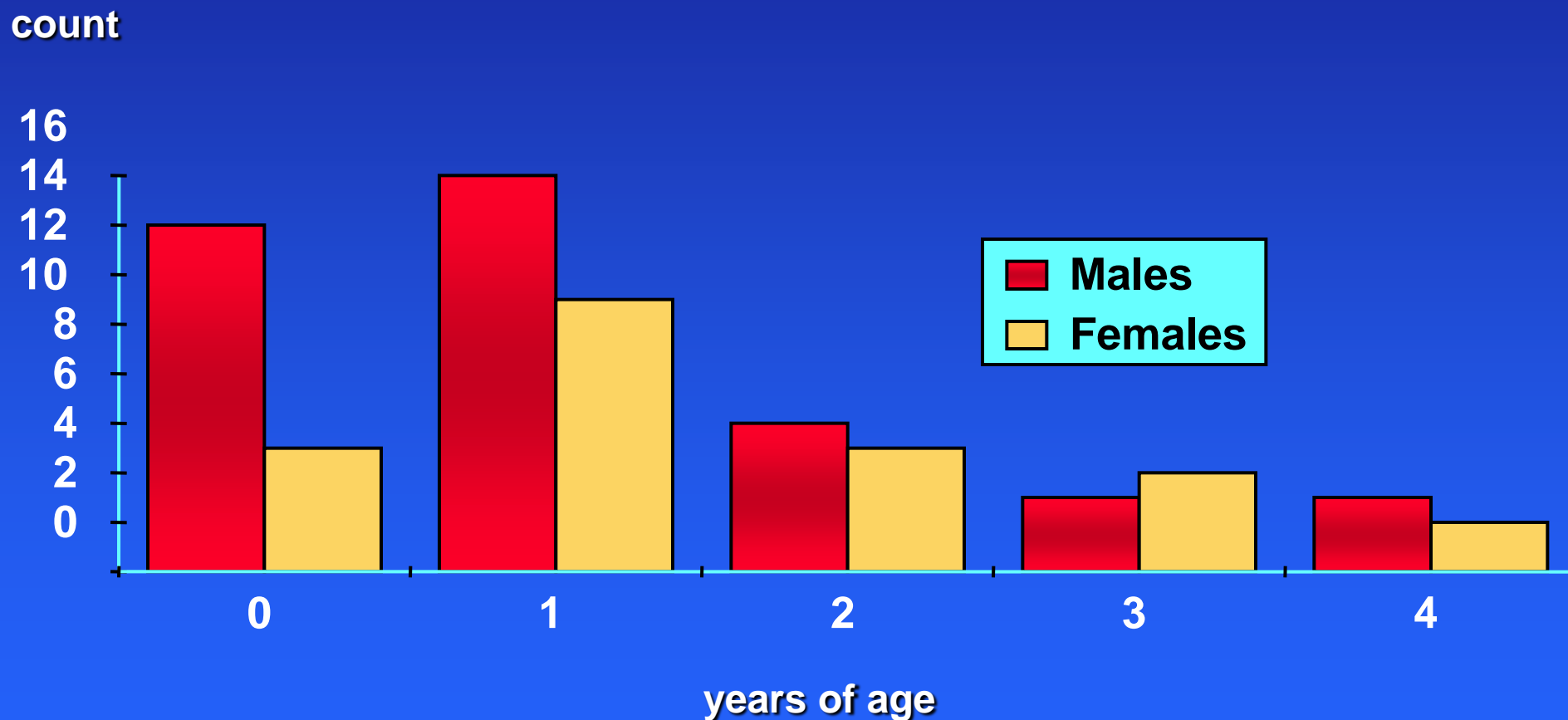


# Time of day for 63\* burns in children 0-4 years of age



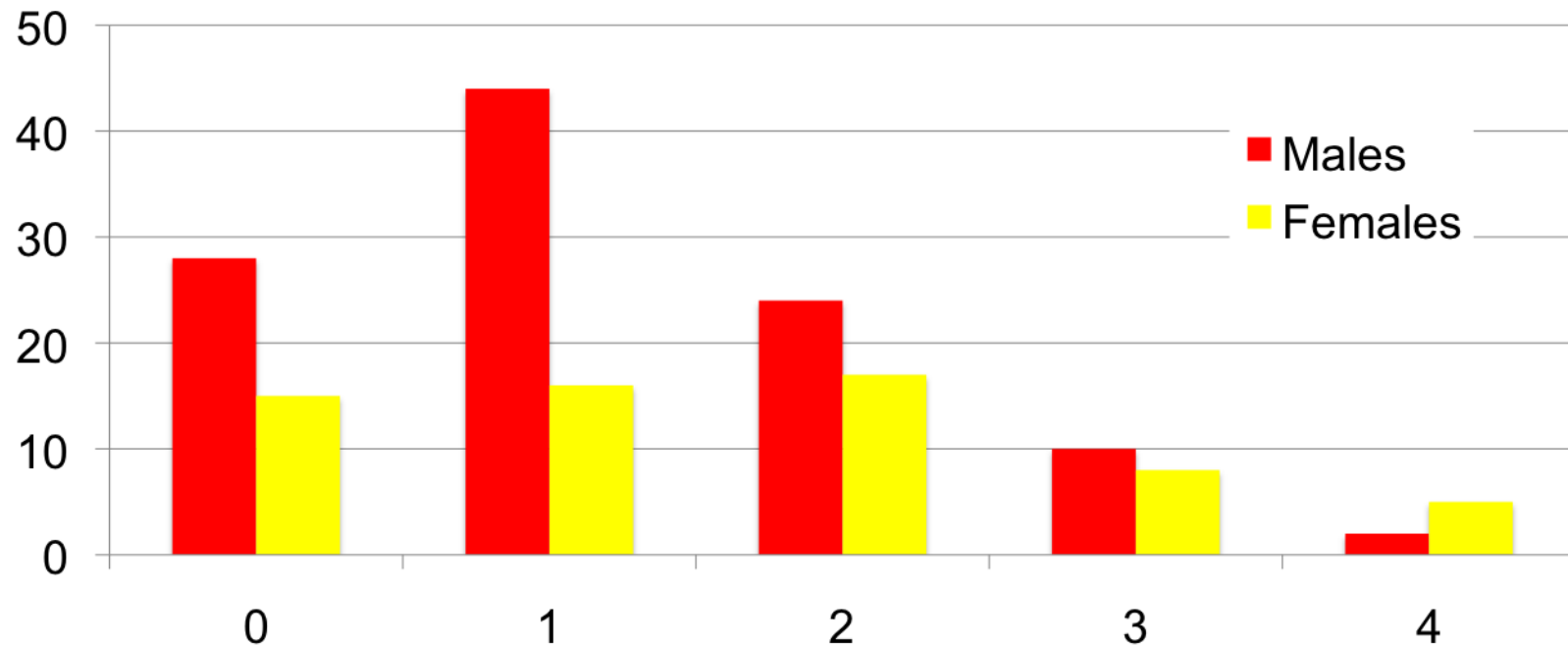
\* in 7 cases time of day was unknown

# Burn injuries in 69 children 0-4 years by gender and age 1985-1994



# Burn injuries in 168 children 0-4 years by gender and age 1994 - 2009

Count



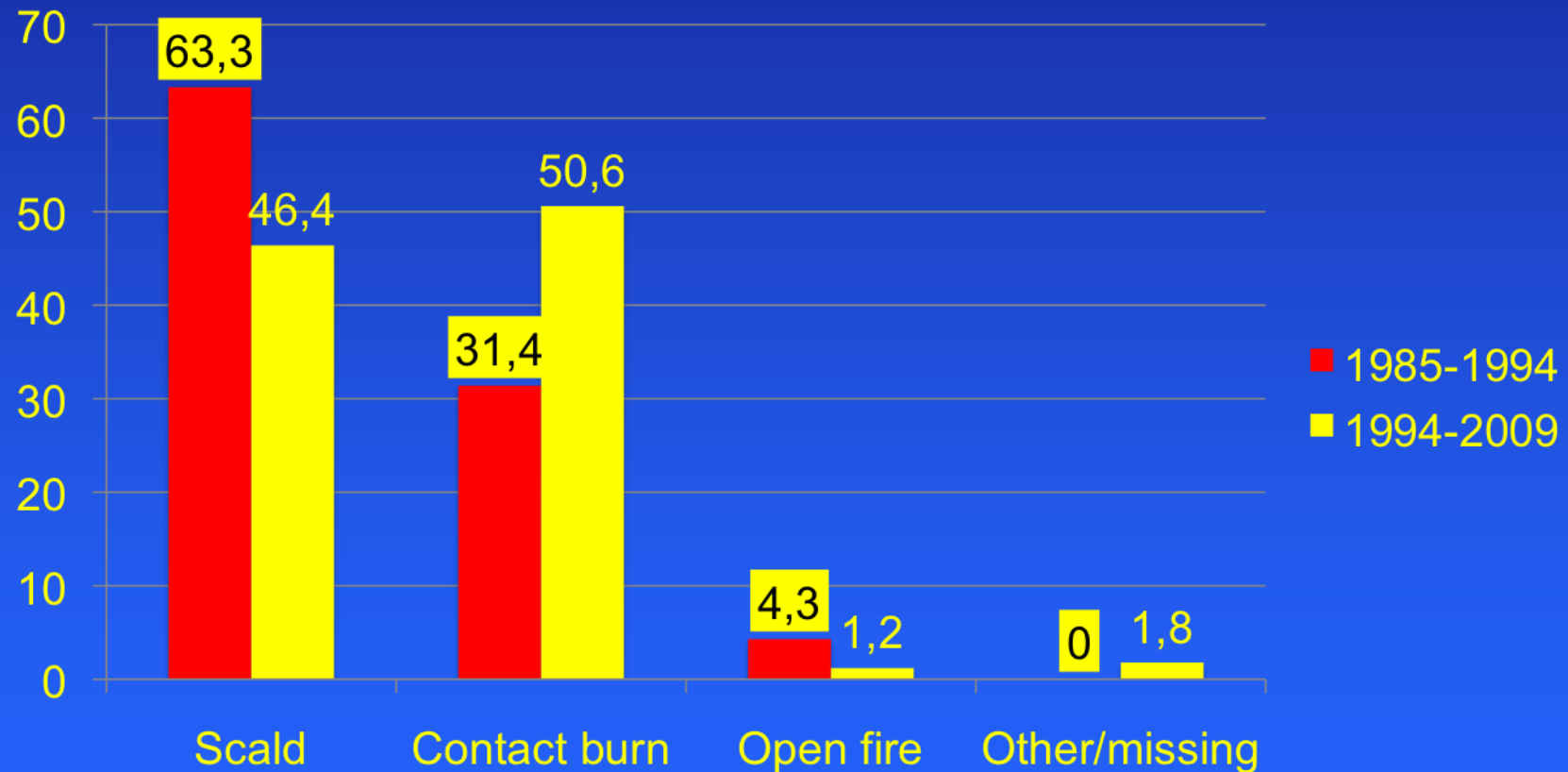
# Injury mechanism and product involved in 69 burns in children 0-4 years old 1985-1994

count

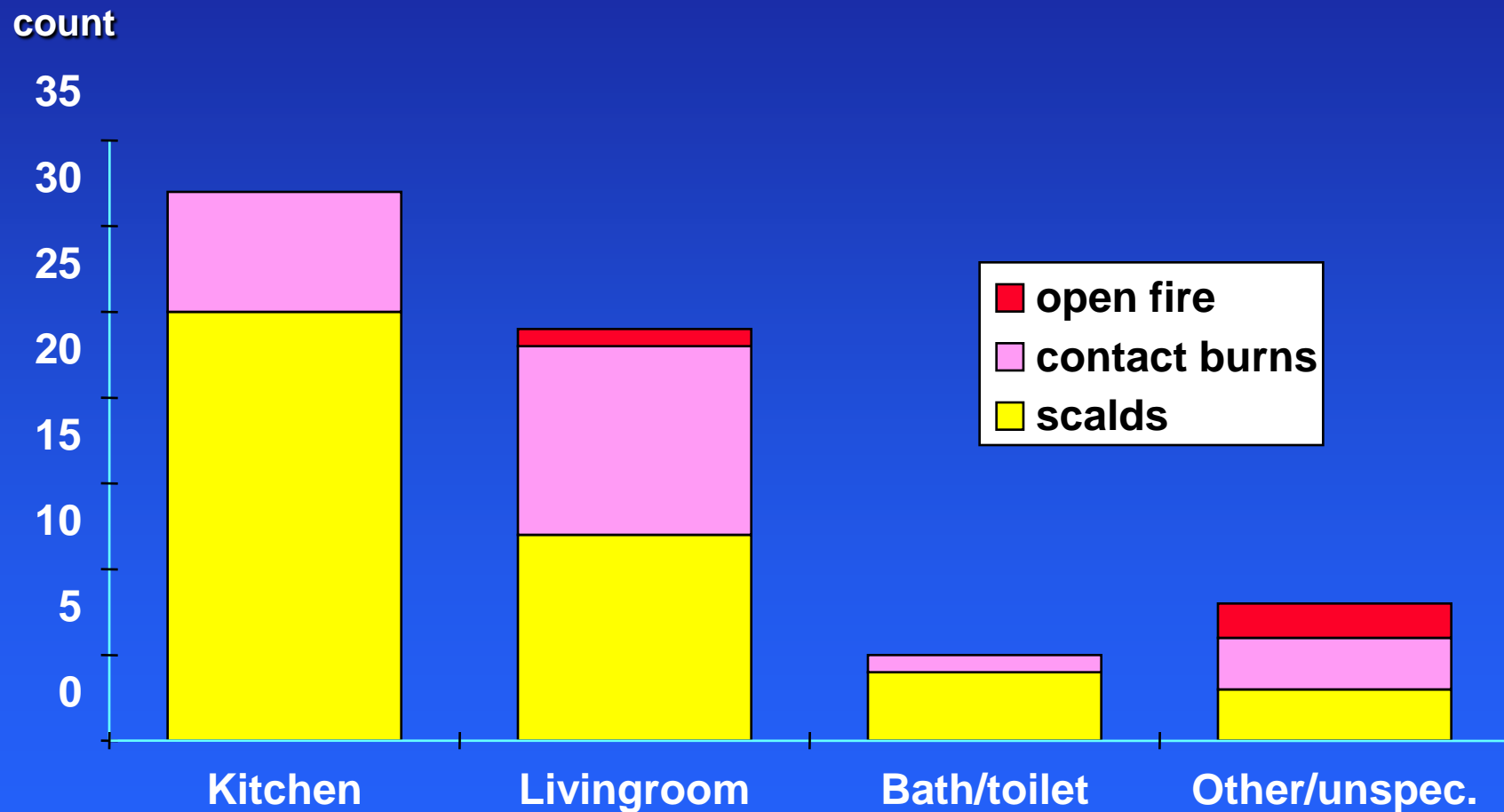




# Injury mechanism in 168 burns in children 0-4 years old 1994-2009 Comparison (per cent) with 69 burns 1985- 1994



## Place of occurrence by injury mechanism for 69 burn injuries in children 0-4 years old



## Quasi-experimental design for an intervention study. Burn prevention in children 0-4 years of age

# 1985

86

87

88

89

90

91

92

93

94

## Period 1

## Period 2

## Intervention: Harstad

## Data recording for all three populations

## Reference:

**6 municip.  
close to  
Harstad**

# Trondheim

## Municipal authorities:

### Primary health care

Physicians

Public health nurses

Physiotherapists

**MEDIA**

### Technical dept

road planning

maintenance

architects

**Injury Prevention  
Group**

### Educational dept

schools

Every conceivable  
public or private  
organisation or individual  
interested in or relevant  
for the injury preventive  
work presently on the  
IPG agenda (burns)

## State/county/private organisations:

Hospital (injury secretary)

Occupational authorities

Consumer's office

Police

Traffic authorities

Driving schools

Politician(s)

National research council

National institute of public health

Pensioner's service

Red cross

Chamber of commerce

Norwegian women's

public health organisation

Farmers organisations

Insurance companies

Local interest groups

Youth clubs

Motorcycle club

Parent Teacher Association

Interest groups for handicapped

Automobile societies

Church groups





**Public health nurse Solveig  
Cares for children – leads the  
burn prevention coalition forces**

**Education, increasing  
parenteral vigilance**

**Cooker safeguard  
promotion**

**Reduce tap water tp**

**Home assessment**

# Burns at different water temperatures

- *60-65 degrees Celsius*: exposure for 2-5 seconds gives 3. degree burn
  - *55 degrees Celsius*: exposure for 30 seconds gives 3. degree burn
-

**Table III Examples of free texts classified by products and mechanism of burn injury**

<b>Scalds</b>	upsetting cups	the child upset her mother's coffee-cup, the content spilled over the abdomen sat on lap of father who was drinking coffee, upset cup had just started to walk, pulled table cloth, upsetting coffee-cup, was scalded
	upsetting large receptacles with hot liquid	alone in kitchen, climbed the table and upset full tea-pot, getting scalded played in living-room, upset coffee-pot and was scalded stood besides living-room table, upset pot with hot water
	upsetting large receptacles with boiling liquid from stoves	pulled down casserole with boiling egg-water from stove pulled down coffee-kettle from stove played in kitchen, pulled down from stove a casserole with boiling oat-meal climbed chair close to the stove and pulled down coffee-kettle from stove
<b>Contact burns</b>	from tap	climbed into bath-room sink and was scalded when opening hot-water tap she and her twin sister got into bath-room, was scalded from tap
	electrical iron	mother was ironing, she turned away for a moment, the child overturned the iron and was burnt on hand
	electrical stove for cooking	burnt hand on cooker
<b>Open fire</b>	electrical stove for heating	placed hand on stove fell from chair on stove placed both hands on living-room stove
	wood- or coal-burning stove	placed both hands on stove, burned both hands while playing in the hall, was burnt on stove
	matches	played with matches, pyjamas caught fire siblings played with matches, bed-clothes caught fire
	open fire	while playing in the yard, the child ran into the open fire



# Halvering av brannskadeulykkene

Harstad viser veien når det gjelder målrettet innsats for å redusere ulykker i kommunen. Etter tre års arbeid med «Ulykkesprosjektet» er totalt sett antall ulykker i Harstad gått ned med åtte prosent. Når det gjelder brannskader blant barn opp til fire år, er resultatene direkte oppsiktsvekkende.

«Ulykkesprosjektet» i Harstad har spesielt rettet seg inn mot hjemmeulykker, trafikkuulykker og skole- og fritidsulykker. De to første kategoriene utgjør til sammen over 50 prosent av alle registrerte ulykker i kommunen.

Et av de mest oppsiktsvekkende resultatene er reduksjonen av brannskader

blant barn fra 0 til fire år. Her har man hatt en nedgang med 20 % fra 1990 til 1992, men nedgangen fortsatte ytterligere i første halvår i år. Holder tendensen seg fra 1. halvår i år, vil man i Harstad ha halvert brannskadeulykkene.

«Ulykkesprosjektet» har på dette området hatt et nært samarbeid med Harstad Røde Kors Barnehjelp. Det har vært stands i byen og i alle barnehagene. Handelsstanden har blitt trukket inn og butikkerne fører nå aktivt brannvernutstyr til komfyrer, beskyttelse av bordduker osv.

Utstyret er også blitt både bedre og billigere. Også byens rørleggere er trukket med i prosjektet.

De anbefaler nå alle småbarnsforeldre å senke varmtvannstemperaturen til 55 grader, og det er ikke rapportert om noen proble-



I løpet av de tre årene «Ulykkesprosjektet» har vært i gang i Harstad, er antallet brannskadeulykker med barn under fire år blitt halvert. En av årsakene er effektiv markedsføring av sikringsutstyr av den type som helsesøster Solveig Rostøl Bakken viser fram her.

NATIONAL MUNICIPALITY REPORT

(Foto: Vemund Åbø)

mer med bakteriedannelse i temperaturen. vannet på grunn av den lave

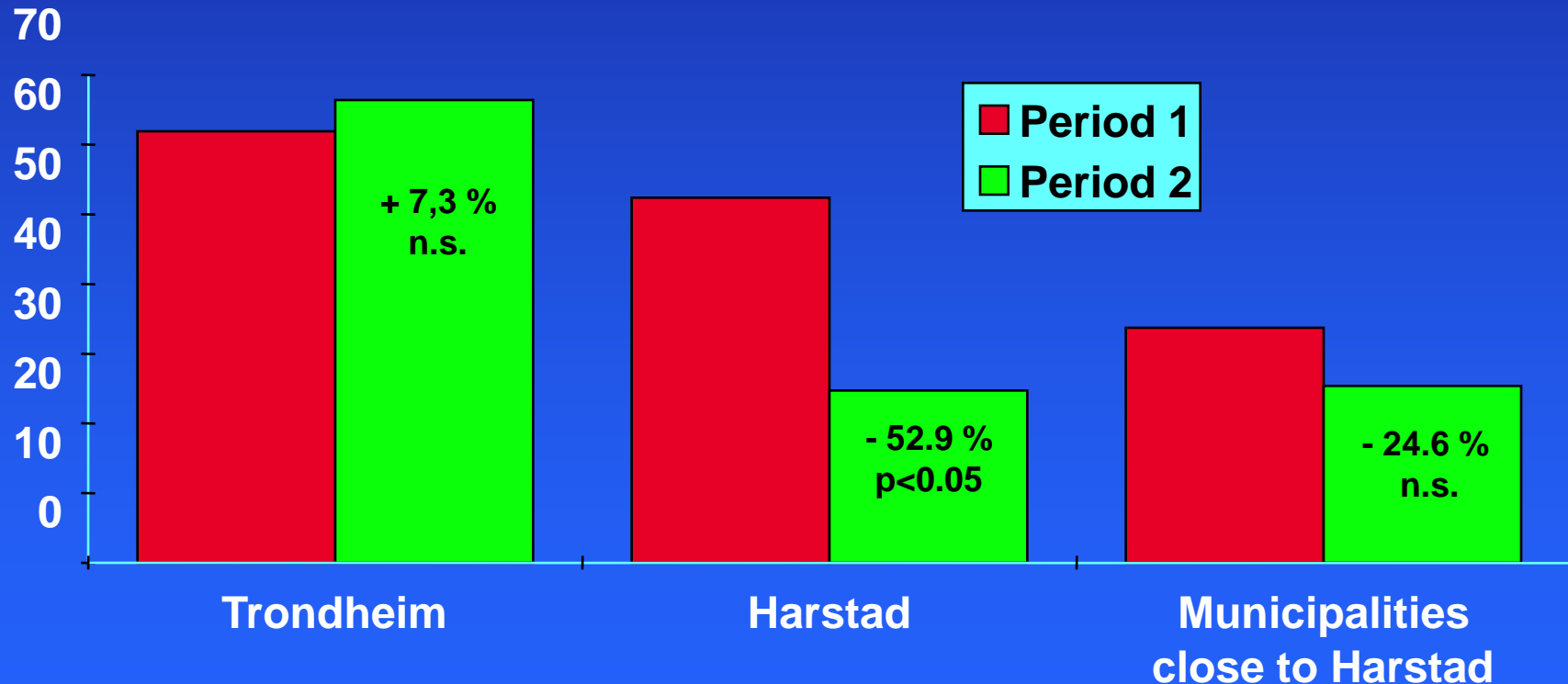
1993

Se siste side

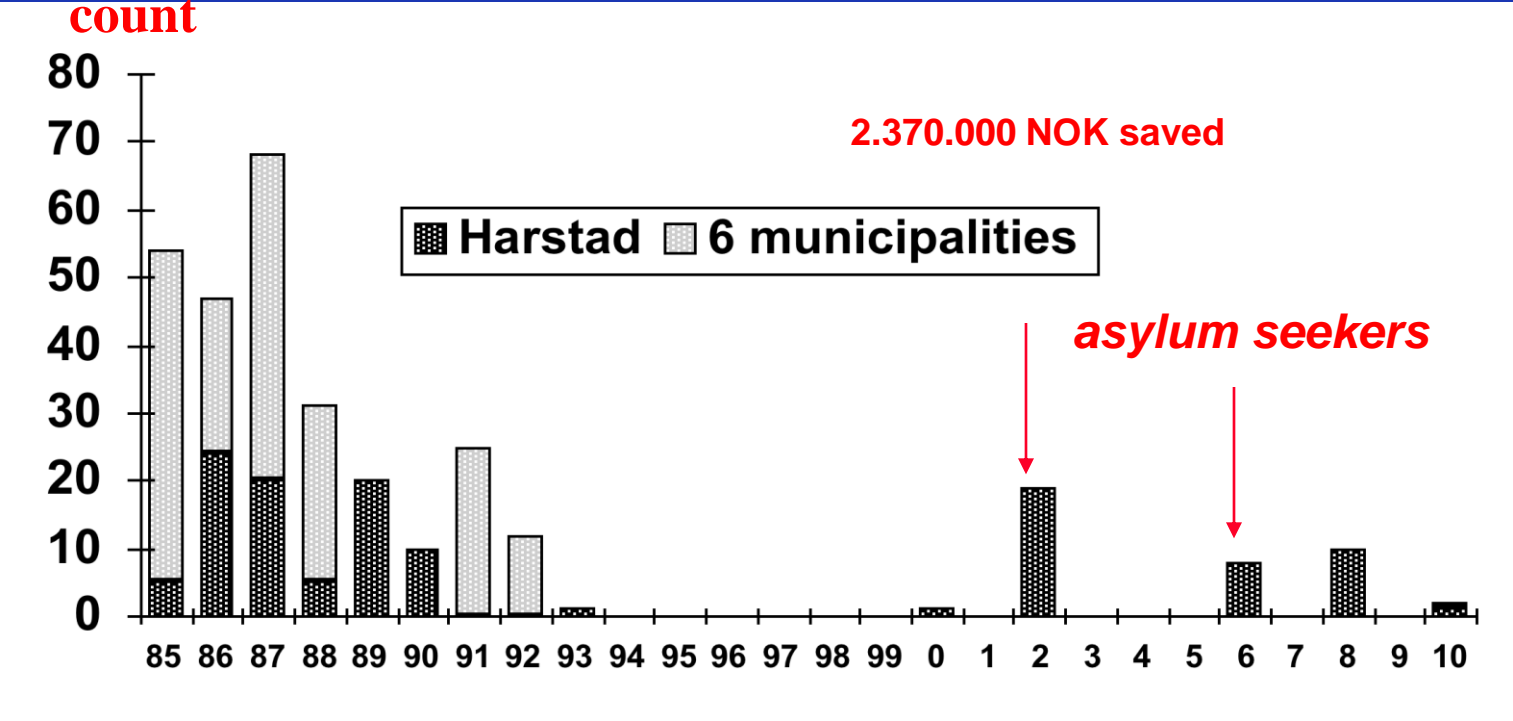


# Burn injury rate changes in three populations of children 0-4 years of age.

injured per 10,000  
person years



# Hospital bed-day consumption for burns in children for 0-4 years



1. Ytterstad B. Smith G. Coggan C. The Harstad Injury Prevention Study. Prevention of burns in young children by community-based intervention. Injury Prevention 1998; 4:176-80.



the cochrane library

- Web-accessed database of peer-reviewed systematic reviews
- Entails a rigorous methodology that provides a framework for high quality assessment of interventions

## Results - Harstad (designated 1994, 2003)

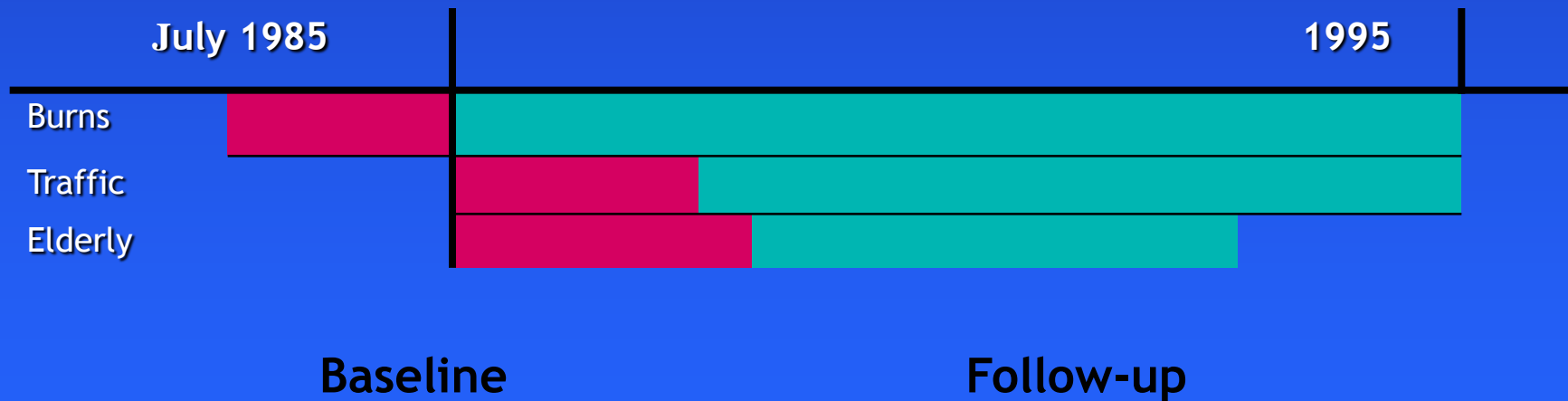
### 3 studies

- \* Childhood burns and scalds
- \* Traffic injuries
- \* Fractures in the elderly

2 controls

1) 6 surrounding municipalities

2) Trondheim





# Take-home message

- Local data is the locomotive that keeps the injury prevention train on it's track
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