

Priorities, Intervention, Evaluation – Prevention of MSD

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Dresden

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I

Falls prevention and manual handling technique among female +55 home help staff

2006-2007

New cases of long-term sickness (>90 days) and provisional early retirement in Sweden 2005 and 2006 due to MSD: Number of employed and sickness cases by age group, risk (cases/employed) by age group

SSYK = 513 (health care workers)							All other occ. groups (excl SSYK=513)					
Females			Males				Females			Males		
Age	N	Cases	Risk	N	Cases	Risk	N	Cases	Risk	N	Cases	Risk
-25	41796	223	005	8940	23	003	136792	507	004	185946	1205	006
26-30	29411	411	014	5595	37	007	153536	804	005	196017	1257	006
31-35	35125	727	021	4986	40	008	196547	1450	007	252919	1815	007
36-40	42220	1129	027	5052	78	015	207773	2217	011	272468	2434	009
41-45	46173	1371	030	4865	80	016	207221	2499	012	269879	2632	010
46-50	47376	1615	034	4553	78	017	190003	2890	015	244535	2691	011
51-55	44676	1932	043	3970	97	024	187967	3292	018	238400	2954	012
56-60	41723	2419	058	3117	86	028	197727	4213	021	247126	3920	016
61-64	21744	1411	065	1267	28	022	147762	2653	018	182767	2426	013
Total	350244	11238	032	42345	547	013	1625875	20525	013	2090057	21334	010

**Local intervention
(group focus)**

Huddinge Council (N=97 000)

**Manual handling/
falls prevention**

Aged Care and Home Help Workers

Work places

Nursing homes, private homes

Employees

**All female nursing aides/home help staff
+55 (N=85)**

Risk analysis

**Critical incident analyses ,
20 locations (n=63)**

Training

**Manual handling technique; Manutention
3 full days + 1/2 day follow-up**

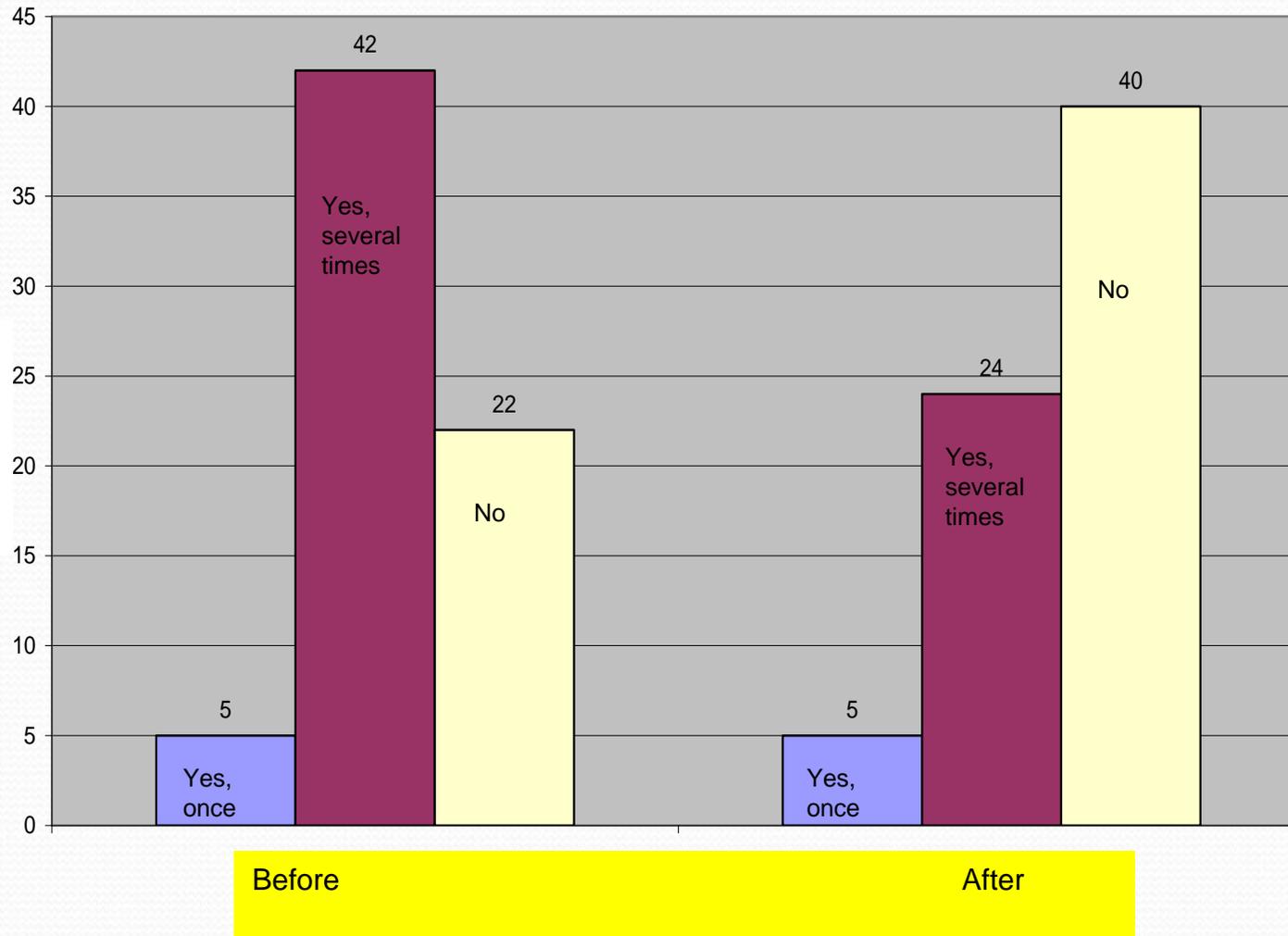
Reduction in perceived risk:

**P-value
before/after
(n=85)**

Dressing person in bed	.001
Propping person up in bed	.001
Placing lifting harness in bed	.009
Washing in bed	.018
From lying to sitting in bed	.023
Assisting with walking	.019
Assisting in the shower	.042
From bed to chair with ceiling lift	non sign
From bed to chair without lift	non sign
Assisting with feeding in bed	non sign
Carrying/unpacking goods	non sign
Assisting with support stockings	non sign
From chair with mobile lift	non sign

Results:

Have you experienced pain/problems from your neck, shoulders and/or back related to your tasks at work during the last 14 days? (n=69 ; Q= +.49)



Results:

2006

2007

**Short-term sickness
due to MSD in the
target group
(N=116, 2006; N=100, 2007)**

29 days

14 days

**MSD as a proportion of all
short sickness days
in the target group
(N=116, 2006; N=100, 2007)**

27%

12%

**Short-term sickness
due to MSD among participants
in training (n=85)**

23 days

6 days

**MSD as a proportion of all
short sickness days among
participants in training (n=85)**

26 %

5 %



**Huddinge Council has made
the three-day professional,
risk-exposure based,
manual handling training
compulsory for all staff**



II

**Operation Safety
– Ballarat**

1995-1997

Occupation by type of accident; claims, payments, harm (Victoria 92-94)

Occupation	Type of Injury	Claims	Payment	Harm
>200 CASES				
Nurses, etc	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	688	4,123,057	1620.18
Vehicle builders, etc	TYPE OF ACCIDENT NOT KNOWN	254	1,042,059	1263.11
Transport, car, truck	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	481	3,178,422	1240.58
Waterside, freight	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	481	3,142,657	1191.99
Sales workers	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	269	1,895,220	820.02
Fitters & turners	OTHER TYPES OF ACCIDENT	231	1,207,969	808.03
Transport, car, truck	OTHER TYPES OF ACCIDENT	211	1,481,934	804.84
Nurses, etc	OVEREXERTION OR PHYSICAL STRESS IN HANDLING OBJECT	343	2,048,284	716.25
Transport, car, truck	OVEREXERTION OR PHYSICAL STRESS IN HANDLING OBJECT	269	1,664,954	709.51
Transport, car, truck	FALL FROM HEIGHT OR INTO DEPTH	286	1,654,983	698.23
Woodworkers, etc	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	231	1,837,972	688.47
Transport, rail	OTHER TYPES OF ACCIDENT	211	823,586	687.49
Waterside, freight	OTHER TYPES OF ACCIDENT	200	905,513	638.54
Transport, car, truck	FALL ON SAME LEVEL	243	1,356,568	542.32
Hotel, restaurant, etc	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	205	1,141,908	459.62
Waterside, freight	OVEREXERTION OR PHYSICAL STRESS IN HANDLING OBJECT	204	1,063,753	373.22
		4807	28,568,840	

Occupation by type of accident; claims, payments, harm (Ballarat 92-94)

Occupation	Type of accident	Claims	Payment	Harm
Transport, other	OTHER TYPES OF ACCIDENT	16	51885	67.03
Fitters & turners	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	18	116099	57.07
Nurses, etc	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	30	116611	51.05
Fitters & turners	OTHER TYPES OF ACCIDENT	15	72864	50.99
Transport, car, truck	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	16	86474	49.09
Textile/shoe workers	OTHER TYPES OF ACCIDENT	10	74355	47.02
Police, guards	OTHER TYPES OF ACCIDENT	11	183048	46.80
Farmers, etc *	STRUCK BY MOVING OBJECT	13	102013	45.22
Sales workers	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	11	86314	40.56
Farmers, etc *	OTHER TYPES OF ACCIDENT	10	209714	40.38
Vehicle builders, etc	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	12	68579	29.01
Woodworkers, etc	OTHER TYPES OF ACCIDENT	10	86580	28.75
Farmers, etc *	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	12	71702	23.19
Nurses, etc	OVEREXERTION OR PHYSICAL STRESS IN HANDLING OBJECT	12	61853	21.89
Hotel, restaurant, etc	FALL ON SAME LEVEL	11	30839	14.19
Butchers, etc	STRIKING AGAINST MOVING OBJECTS	12	21877	5.99
Dairy/food process	OVEREXERTION OR PHYSICAL STRESS IN LIFTING OBJECT	10	17390	4.46
Butchers, etc	STRUCK BY MOVING OBJECT	12	5912	1.50
		241	1464108	

Regional intervention
(problem focus)

Ballarat, 125 000 inv

Manual handling

Transport, Care work

Work places

**1 560 (trade, transp, care,
hotel/rest, manufacturing)**

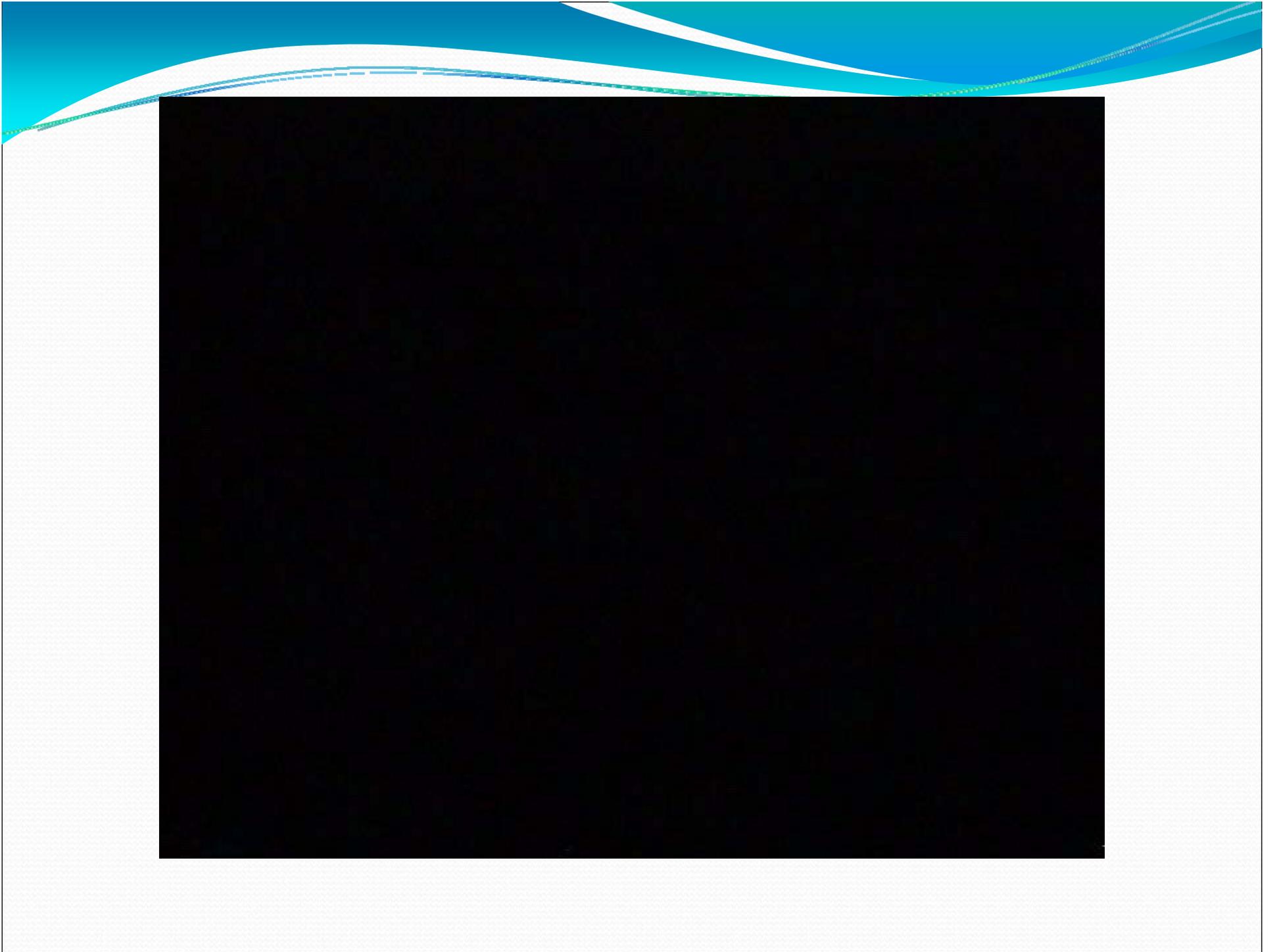
Employees

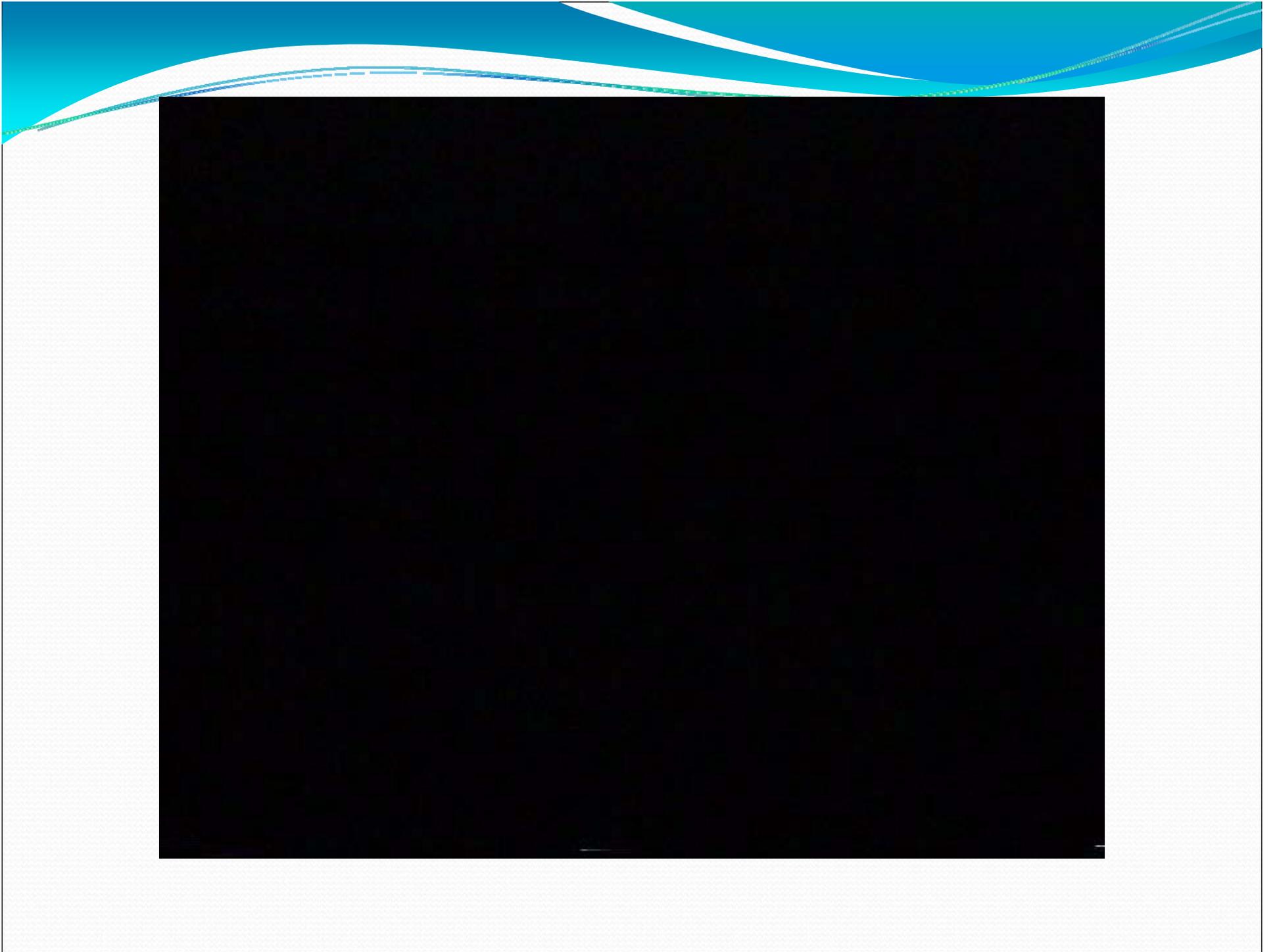
1 350 Transport workers

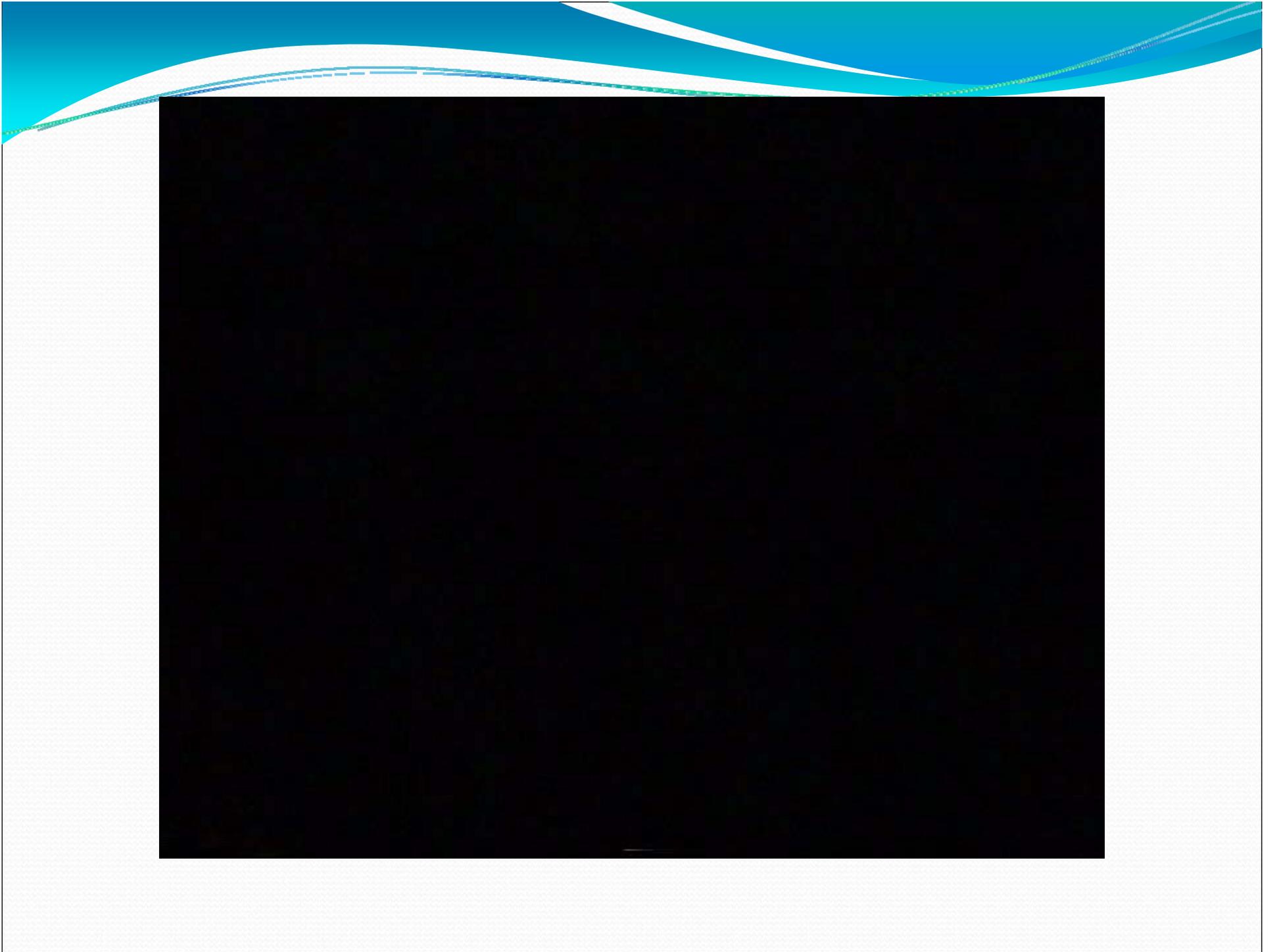
2 400 Care workers

Intervention:

Mail-out	1560 work sites
Telephone follow-up, visits	60 sites
Risk assessment	50 industrial, 10 nursing
Problems demonstr. solved	10
Ex post facto survey	160 sites
Public launch, Minister	1
24-sheet poster, 8 sites	1 July 95 – 28 Feb 96
Bus side "Operation Safety"	1 Sep 95 – 30 June 96
Bi-weekly ads, 4 local papers	29 Oct 95 – 21 Jan 96
4/day, 5/week, 1 min promo	1 Nov 95 – 31 Jan 96 (3BA)
520 opening/closing credits	-"-
390 comm. service ann.	-"- (3BA, 3CV, 3CS)
3 television spots, 117 screen	5 Nov – 16 Dec 95 (1400 tarps +18)
43 feature articles – solutions	23 Aug 95 – 23 May 96
Display truck	27 Nov – 22 Dec 95 (600 vis)







Telephone questions to 1000 families before/after

Questions	1995	1996
Work-related ill health?	22.9	19.1 **
Overexertion?	53.4	41.4 **
Back pain?	38.1	33.4 -

Telephone questions to 1000 families before/after

Sick-leave	1995	1996
One episode	151(62%)	186 (93%)
Two episodes	49(20%)	9 (4%)
Three episodes	27(11%)	5 (2%)
Four episodes	17 (7%)	1 (1%)
Total	244	201
n		

Overexertion injuries

		94(N)	96(N)	+/-
Transport				
	Vic	402	390	- 3%
	Ball	19	11	- 42%
Care				
	Vic	500	537	+ 7%
	Ball	24	21	- 13%

Severe injuries

	94(N)	96(N)	+/-
Vic	15,344	17,806	+16%
Ball	658	542	- 18%
Transport			
Vic	1,222	1,171	- 4%
Ball	45	38	- 16%
Care			
Vic	801	846	+ 6%
Ball	32	25	- 22%

Severe injuries

	94(\$)	96(\$)	+/-
Vic	85.4m	123.9m	+45%
Ball	2.9m	3.8m	+28%
Transport			
Vic	7.3m	9.1m	+24%
Ball	0.40m	0.45m	+ 1%
Care			
Vic	3.7m	5.3m	+44%
Ball	0.119m	0.120m	+ 1%

Severe injuries

	94(N)	96(N)	+/-	
Vic	15,344	17,806	+16%	
Ball	658	542	- 18%	
Wod	429	447	+ 4%	
	94(\$)	96(\$)	+/-	
Vic	85.4m	123.9m	+45%	
Ball	2.9m	3.8m	+28%	
Wod	1.7m	2.6m	+51%	

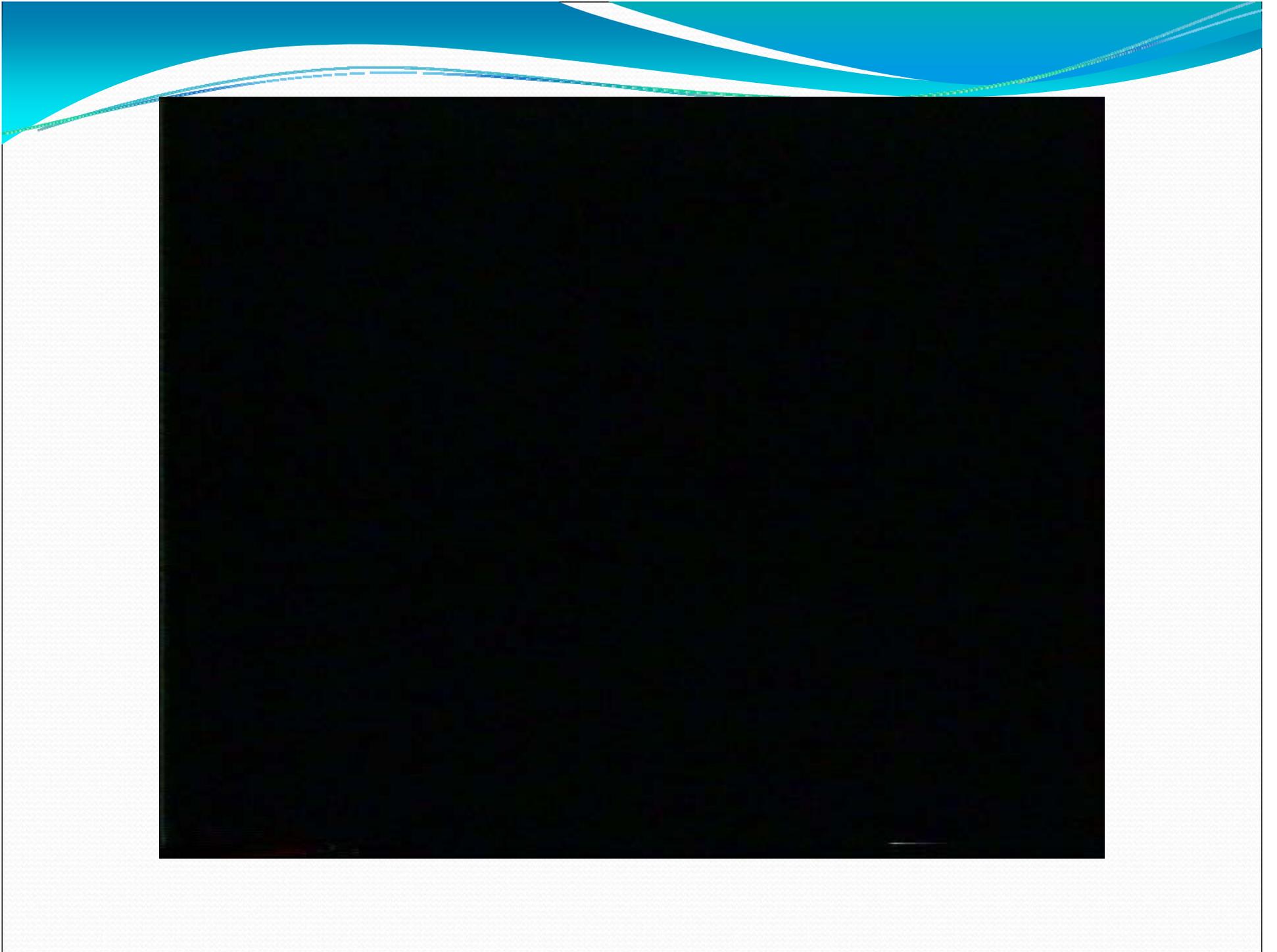


Regional save (Ballarat)

\$400 000 per year

Potential national save (Victoria)

\$11,5 mill. per year





Prevention is possible!



III

Falls Prevention through Community Intervention - a Swedish example

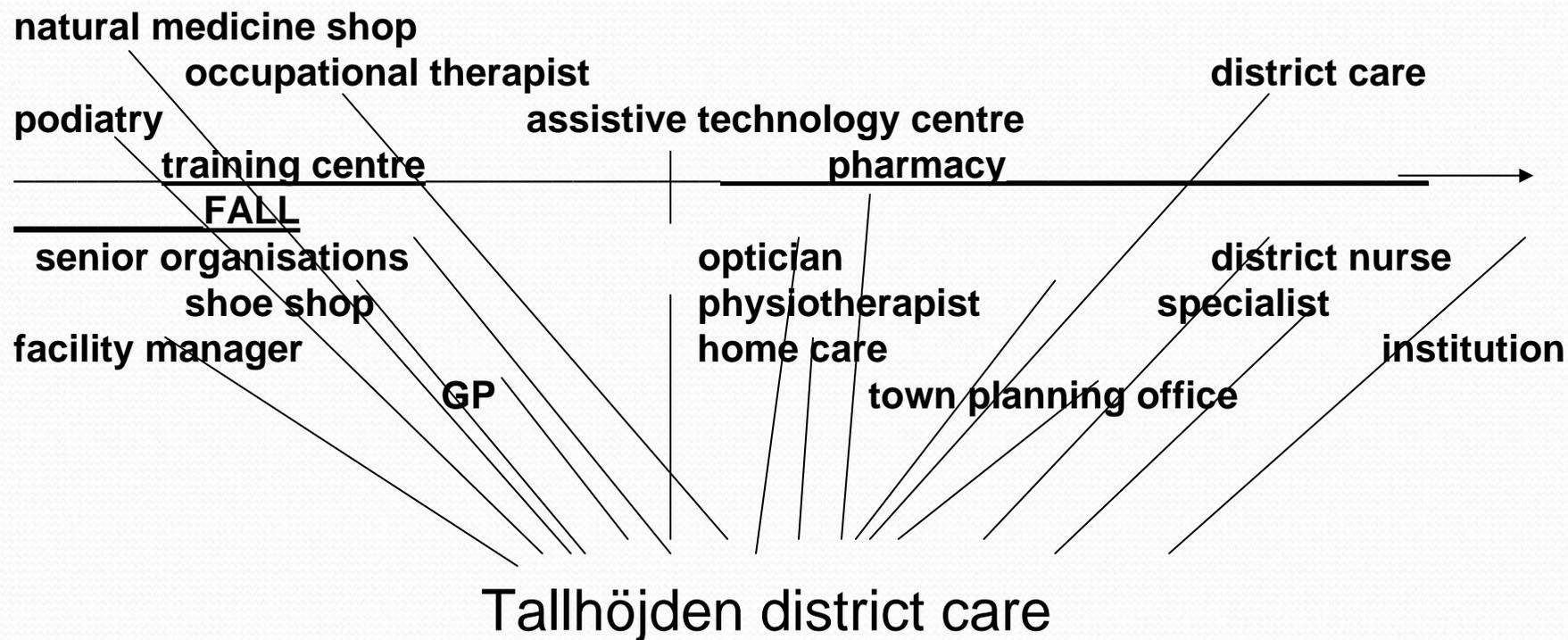
2006-2007

The Risk of Radius Fracture (R=.008, NUS 2002)

Council	Number of women 55 years or older	Estimated number of annual fractures
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Södertälje	11 407	91
Nykvarn	1 015	8
Huddinge	10 339	83
Haninge	8 731	70
Botkyrka	8 916	71
Salem	1 822	15
TOTALT	42 230	338

The Local Falls Prevention System



Free From Falls (Södertälje)

Intervention

(problem /public focus)

Free From Falls Södertälje

Recruit prevention agents

**Senior Clubs, Gyms, Foot Care,
Shoes, Opticians, Health**

Educate, public seminars

**KTH Campus Södertälje, Community
Health Centre Tallhöjden**

Local pamphlet

Free From Falls Södertälje 3 000 ex

Free From Falls Södertälje

Wrap-around local paper 30 000 ex

Falls Risk Telephone Line

Oct 2006 – May 2007 29 calls

**Bus Side Free From Falls –
Falls Risk Telephone Line**

Jan-Feb 2007

Survey – Public, Agents

June 2007

Free From Falls Guide

”Be the everyday hero
- prevent a falls injury”

DU ÄR INTE ENSAM!

Bakom Fallfritt finns en gemensam kraftsamling för att aktivt bidra till ett fallfria samhälle.

Vi vill gemensamt rusta oss för att minimera samt ta bort riskerna för fall.

På baksidan finner du en rad nyttiga telefonnummer. Riv ut denna flik och spara den!



06/06/04 kl. 19:05:5
Nils snubblar på sin matt
06/06/31 kl. 21:19:0
Astrid trillar i trapper
06/07/11 kl. 06:05:0
mar halkar på väg till postlåda
06/08/02 kl. 10:22:7
mtjänsten halkar mellan besöke



BLI
VARDAGSHJÄLTE!



SÖDERTÄLJE

Ge denna guide till
någon du värnar om!

Södertälje

	2005	2006	2007
Residents	80 553	81 791	83 642
Men, all ages	40 306	40 956	42 042
Men ≥ 55	10 134	10 290	10 375
Women, all ages	40 247	40 835	41 600
Women ≥ 55	11 764	11 898	12 023

Table 1. Residents of Södertälje, 2005 - 2007.
Statistics Sweden, 2008.

Hip fractures among residents of Södertälje

Year	Hip fractures	Incidence -all residents	Change since 2005	YLD	Change since 2005
2005	106	.00132	-	1333.5	-
2006	103	.00126	-4.5%	940.3	-29.5%
2007	92	.00110	-16.7%	941.3	-29.4%

Table 2. Frequency, incidence, years lost to disability due to hip fracture among residents of Södertälje, 2005-2007.

Hip fractures among women ≥ 55 in Södertälje

Year	Hip fractures -women ≥ 55	Incidence	Change since 2005	YLD	Change since 2005
2005	73	.00620	-	466.6	-
2006	72	.00605	-2.4%	413.7	-11.3%
2007	63	.00524	-15.5%	281.7	-39.6%

Table 3. Frequency, incidence, years lost to disability due to hip fracture among women 55 years and older in Södertälje, 2005-2007.

Hip fractures among women ≥ 55 in special accomodation in Södertälje

Year	Hip fractures -women ≥ 55 special accommodation	Incidence	Change since 2005	YLD	Change since 2005
2005	18	.04147	-	15.0	-
2006	21	.04839	+16.7%	24.3	+62.0%
2007	10	.02304	-44.4%	3.4	-77.3%

Table 5. Frequency, incidence, years lost to disability due to hip fracture among women 55 years and older living in special accomodation in Södertälje, 2005-2007.

Hip fractures among regional residents (Södertälje, Botkyrka, Nykvarn, Salem)

Year	All treated hip fractures at the hospital	Incidence	Change since 2005	YLD	Change since 2005
2005	145	.0008	-	3118.2	-
2006	128	.0007	-12.5%	1938.8	-37.8%
2007	118	.0006	-25.0%	1608.8	-48.4%

Table 7. Frequency, incidence, years lost to disability due to hip fracture among residents in Södertälje, Botkyrka, Nykvarn and Salem councils treated at Södertälje hospital 2005-2007.

Hip/thigh fractures, luxations, distortions in Sweden

Year	In-patients/100 000 inhabitants	Change %	Incidence Men >55	Change %	Incidence Women >55	Change %
2005	852.63	-	538.76	-	1123.04	-
2006	849.82	- 0.3%	540.79	+0.4%	1117.38	- 0.5%
2007	837.41	- 1.8%	524.35	- 2.7%	1109.89	- 1.2%

Table 8. In-patients/100 000 inhabitants, 55 years or older, due to fracture, luxation or distortion of hip or thigh in the Swedish national register 2005, 2006 and 2007. *National Board of Health and Welfare, Statistics Databases 2008.*



Prevention is possible!