

PILOT STUDY

Functional Impairment and Falls in Retired Union Members: Construction Versus Non-Construction

Investigators

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Overall Study Purpose and Plan:

Purpose:

To determine if construction versus non-construction retired union members experience greater functional impairment and falls.

Overall Study Plan:

- Conduct 3 focus groups to ascertain quality of life concerns and pilot test questions
- Conduct mailed survey of retired construction and non-construction union members to assess functional impairment and falls and injuries

Data Collection Procedures for Focus Groups:

“Script” of questions developed to query participants.

Unions sent letter explaining study and volunteers requested.

3 focus groups conducted.

Brief background questionnaire completed.

SF 36 Health Survey pilot tested.

Unions represented:

Labor International

IBEW

AFLCIO

United Brotherhood of Carpenters

Teamsters

Teachers

Data Collection Procedures for Survey

4 Unions Contacted and Participated

Unions addressed and mailed packets to each member including:

- Teleform ? automated entry 5 page survey
- Letter from union
- Letter from UC
- Stamped return envelope

Participants In Focus Group

Construction: 11

Laborer 3

Plaster 3

Pipefitter 2

Other 3

Non-Construction: 8

Inspection/Clerical 5

Teaching 2

Gender: 14 males, 5 females

Average Age: 71.6 years (61-82)

Average years worked: 33.5 years (4-50)

Average years retired: 9 years (3-20)

Results From Focus Group

Health Concerns:

- Hearing deficits
- Back and knees pain

Falls:

- Numerous falls reported from heights
- Tasks related to falls included climbing stairs, ladders, scaffolding, balancing heavy loads, pulling on chains/cables

Results From Focus Group (cont'd)

Quality of Life:

- Job seriously affected quality of life, e.g. shoulder (difficulty fishing), hearing (difficulty communicating), knee (golf and walking)
- Problems with balance
- Would not encourage children to belong to trade

Psychological Issues:

Negative Issue: Racial inequalities in trades

Positive Issue: Experienced job satisfaction. “I can drive by a building and know I had helped build it.”

Positive Issue: Participation in focus groups increased their consciousness and desire to be an activist and support for safer work conditions.

Pilot Mail Survey

Participating Unions and Response Rate After One Mailing

<u>Union</u>	<u>Surveys Delivered</u>	<u>Surveys Received</u>	<u>Response</u>
Construction:			
IBEW	50	17	34%
Laborers	250	60	24%
Non-construction:			
Teachers	250	129	52%
Communications	230	45	20%
Totals	780	251	32%

Mailed Survey

Characteristics of Retired Union Members

	<u>Construction</u>	<u>Non-Construction</u>
Participants	77	174
% Caucasian	53	57
% Male	100	18
Age (%)		
≤ 64	36	57
65-74	40	36
≥ 75	23	7
% Worked >25 yrs.	88	86
% Retired >5 yrs:	68	69

Results of SF-36* and MOS[†] Health Survey for Construction and Non-Construction Retired Workers

	Construction (n=77) (%)	Non-Construction (n=174) (%)	Non-Construction Males (n=32) (%)	Non-Construction Females (n=142) (%)
Describes Health As Poor [?]	10.5	2.9*	3.2	2.9 ⁺
Severe/Very Body Pain [?]	19.4	8.4*	3.1 ⁺	9.6*
Very Dissatisfied with Physical Ability [†]	22.4	8.1**	9.4	7.8**
Most/All Time Need Assistance [†]	5.2	2.4	6.5	1.4
Limited A Lot In Physical Functioning [?]	26.0	16.1	9.4	17.6

[?] SF-36 (Short Form 36 Health Survey)

[†] MOS (Medical Outcomes Study Physical Functioning Measure)

Two-way analysis between construction workers and one other group

* $\leq .05$?²

** $\leq .01$?²

+ $\leq .01$ Fischer Exact

Falls and Injuries of Construction and Non-Construction Retired Workers

	Construction (n=77) (%)	Non-Construction (n=174) (%)	Non-Construction Males (n=32) (%)	Non-Construction Females (n=142) (%)
Work Injury Required Medical Attn.	27.3	10.9*	9.4 ⁺	11.3*
Work Fall Required (Medical Attn.)	24.7	5.6*	0.0 [?]	7.0*
Fell in Last 12 Months	15.6	23.0	25.0	22.5

Two-way analysis between construction versus one other group

* $\leq .05$ χ^2

⁺ $\leq .05$ Fisher Exact

[?] $\leq .01$ Fischer Exact

Physical Limitations for Construction and Non-Construction Retired Workers

Do you have a problem, limitations or pain? (% Reporting Sever to Very Severe) £	Construction (n=77) (%)	Non-Construction (n=174) (%)	Non-Construction Males (n=32) (%)	Non-Construction Females (n=142) (%)
Vision	8.0	1.2*	0.0	1.4+
Hearing	2.7	4.6	3.1	4.9
Neck/Shoulder	7.8	1.2+	0.0	1.4+
Elbow	5.2	0.0 T	0.0	0.0+
Hand/Wrist/Fingers	7.9	5.9	0.0	7.2
Upper Back	6.6	1.8	0.0	2.1
Lower Back	16.0	10.4	9.4	10.6
Hip	14.3	4.0**	3.1	4.2**
Knee	24.0	11.1*	9.4	11.5**
Ankle/Feet	15.6	6.4*	6.2	6.3*

Two-way analysis between construction versus one other group

£ Response could range from none, very mild, mild, moderate, severe, very severe

* $\leq .05$? ²

** $\leq .01$? ²

+ $\leq .05$ Fisher Exact

T $\leq .01$ Fisher Exact

Primary Survey Limitation

- Disproportionate numbers by gender in construction versus non-construction, therefore, non-construction group analyzed separately by gender and combined.
- Low response (32%) but typical of 1 mailing.

Conclusions

- 25% of construction versus 6% of non-construction workers reporting having a fall while employed that required medical attention.
- 10% construction and 23% non-construction retirees have fallen in the last 12 months.
- Construction versus non-construction retirees reported 2-4 x more likely to report “severe to very severe” problems with their vision, neck/shoulder, elbow, knee and ankle/feet and joints.
- Construction versus non-construction workers are 2 to 3 x more likely to describe their health as poor and report having “severe to very severe” body pain.
- Construction versus non-construction workers reported 2 to 3 x greater dissatisfaction with their level of physical activity and physical functioning.