



Occupational Health and Community Health Center (CHC) Patients

A report on a survey conducted at five Massachusetts CHCs

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*Occupational Health Surveillance Program
Massachusetts Department of Public Health*

Survey Highlights

- 1,428 working patients awaiting appointments at five community health centers completed a short, anonymous survey about their occupational health experience.
- The most commonly reported occupational categories were service occupations, followed by sales and administrative support, then operator and laborer occupations. The specific job most commonly reported was janitor/cleaner.
- 38% of patients used chemicals on the job, with cleaning products being the most common chemicals used.
- The most common concern about work-related health was ergonomic hazards.
- 39% of patients had never heard of Workers' Compensation. 63% of patients had never heard of OSHA.
- 21% of patients reported experiencing a work-related injury, illness, or health problem during the previous year.

The Occupational Health Survey project

The Occupational Health Survey was a project carried out by the Massachusetts Department of Public Health's Occupational Health Surveillance Program (MDPH-OHSP) and several community health centers (CHCs). The purpose of the survey was to describe the occupational health experience of a sample of CHC patients, with the intent of learning more about workplace risks faced by minority and immigrant workers. Community health centers were identified as points of access to low-income, minority and immigrant populations, and potential community partners for addressing identified occupational health needs of working people. During 2002 and 2003 a sample of over 1,400 CHC patients completed the occupational health survey. Surveys were administered orally in English, Spanish, Vietnamese, Portuguese, Cape Verdean Creole and Khmer by trained interviewers.

The survey asked working patients about:

- Jobs and industries in which they worked, and hours worked.
- Health hazards on the job (e.g., working with chemicals or safety hazards).
- Health and safety information and training received.
- Awareness of OSHA and Workers' Compensation.
- Injuries or illnesses they may have sustained at work over the previous year.

–Who completed the survey?

1,428 CHC patients completed the anonymous survey. A total of 2,409 patients were approached in CHC waiting rooms. Participation in the survey was limited to adult patients who had worked for pay during the previous 12 months. Of 2,003 (83%) patients willing to take the survey, 1,627 (81%) were eligible. Of those, 1,428 completed the survey before being called for their appointments. Surveys were administered orally in six languages from 2002 to 2003.

Demographics

- Average age: 35 (range: 18 to 79).
- 64% were female.
- 42% spoke English at home, 30% Spanish, 12% Vietnamese, 7% Cape Verdean Creole, 3% Portuguese, 2% Khmer.

Table 1. Respondent's Place of Origin

Place of Origin	N	%
United States (Mainland)	484	34
Asia	232	16
Central America	217	15
Africa	124	9
Caribbean	122	9
Puerto Rico	102	7
South America	92	6
Other (includes Europe, Mexico, Canada, Middle East etc.)	55	4
Total	1,428	100

Source, Occupational Health and CHC Patients, MDPH, 2007

Education*

- 14% of respondents finished 9th grade or less.
- 19% stopped at 10th grade or 11th grade.
- 32% stopped at high school or their GED.
- 35% had education beyond high school.

* Years of education in any country (U.S. or country of origin) was tallied to arrive at total years of education. Interviewers consulted with respondents to categorize education received in foreign school systems.

Why We Conducted the Survey

Work-related injuries and illnesses have been shown to disproportionately affect racial and ethnic minorities and immigrants.

- In Massachusetts, Hispanic and Black workers have high rates of fatal occupational injuries compared to White workers; immigrants account for a high proportion of occupational fatalities among workers of color.
- Hispanic workers are over-represented among workers with occupational lead poisoning.
- Southeast Asian workers surveyed in Lowell reported low awareness of Workers' Compensation and infrequent reporting of occupational injuries to employers and providers. (Azaroff, LA et.al., Int J Env Occ Hlth 2004:10;1)

Understanding the occupational health experience of low-income minority and immigrant workers will inform prevention, intervention, and policy strategies to protect the health of working people. As an important source of health care and resources for many minority, immigrant, and low-income communities, CHCs can collaborate in the delivery of occupational health information and services to CHC patients.

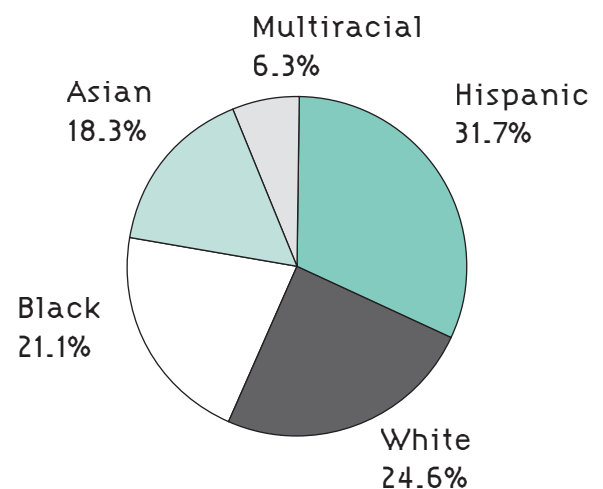


Figure 1. Respondent's Race

-Patient's employment*



Occupation

- The specific occupation reported most frequently was janitor/cleaner, followed by cashier, then cook.
- 32% of patients worked in service occupations, such as janitors, cooks, nursing aides, and orderlies (Table 2).
- 24% of patients worked in sales or administrative support jobs such as cashiers, sales workers, and secretaries.
- 23% worked as operators, fabricators, and laborers (such as packing in factories or as construction laborers).

Table 2. Patient's Occupation

Occupational category	N	%
Service occupations	450	32
Technical sales and administrative support occupations	347	24
Operators, fabricators, and laborers	307	22
Managerial and professional specialty occupations	172	12
Precision production, craft, and repair occupations	134	9
Farming, forestry and fishing	11	1
Unknown	7	-
Total	1,428	100

Source, Occupational Health and CHC Patients, MDPH, 2007.

Occupation varied by race and ethnicity

- Only 6% of Hispanic patients had managerial/professional jobs, compared to 18% of Whites, 14% of Blacks and 11% of Asians.
- Hispanic patients were most often employed in service occupations (41%).
- Asian patients were most often employed as operators, fabricators and laborers (28%).
- Black patients were most often employed in service occupations (32%).

*the term "patient" denotes survey respondent.

Industry and workplace

- Patients were most frequently employed in the service sector (e.g., cleaning service, medical service, educational and social services etc.) (22.7%), followed by retail (20%), and manufacturing (20%).
- The most frequently reported specific workplace was eating and drinking establishment (8%), followed by construction company (6%), and building services company (6%).

Hours and characteristics of work

- 94% of patients reported having 1 job, working an average of 37 hours/week.
- 10% used temporary placement agencies to get their jobs.
- 5% worked for themselves; 3% worked for family members.

Linking Jobs and Health Risks

Epidemiologic studies have linked certain occupations with risk of exposure to hazards and/or elevated rates of occupational injury and illness. For example:

- Cleaning work exposes workers to chemicals that can be respiratory and skin irritants. Cleaning and janitorial work also poses ergonomic hazards from repeated gripping, pushing, and pulling of cleaning equipment.
- Administrative support occupations, which can involve repetitive computer work, pose risks for musculoskeletal disorders of the hands, wrists, and arms.
- Equipment/Machine operators can be exposed to ergonomic stressors and respiratory irritants such as smoke, fumes, and dusts. In general, jobs in manufacturing settings have some of the highest rates of musculoskeletal disorders from repetitive motions and traumatic injuries. Factories also may expose workers to various chemicals.

Health hazards at work

Patients were asked about exposure to chemical hazards such as cleaning products and solvents, dust, ergonomic hazards such as lifting, and other physical agents or unsafe conditions.

Working with chemicals

- 38% of patients reported that they work with chemicals (Table 3).
- Among patients who use chemicals on their job, cleaning products were reported most often. See box for information on a link between cleaning products and asthma.

Table 3. Use of Chemicals on the Job*

Chemical hazard	%
Cleaning products	68
Alcohols	17
Inorganic acids	5
Solvents	5
Other chemicals including oils	5
Total (N=541)	100%

*Among 541 patients who reported exposure to chemicals
Source, Occupational Health and CHC Patients, MDPH, 2007.

Respiratory hazards

32% of patients reported breathing substances like dust, fumes, or smoke on the job (Table 4).

- The most common respiratory irritants reported were mineral and inorganic dusts (42%). Mineral dusts include dust from sand, concrete, sheet rock, etc. Inorganic dust includes common dust.
- Other frequently reported respiratory hazards: smoke, such as from cigarette smoking, and kitchens.

“I came (to the health center) because of a 2nd degree burn. My employer should have sent me 2 days ago when it happened.”

Restaurant worker

Table 4. Respiratory Hazards on the Job*

Most common respiratory hazards	%
Mineral and inorganic dusts	42
Smoke	15
Air pollutants, miscellaneous	11
Exhaust	9
Cleaning product vapors	6
Other including wood dusts, fumes etc.	17
Total (N=453)	100%

*Among 453 patients who reported respiratory hazards
Source, Occupational Health and CHC Patients, MDPH, 2007

Ergonomic risks

- 37% of working patients reported performing heavy lifting on their jobs.
- 39% said that their work causes them pain in their hands, arms, or shoulders.

Patients’ health and safety concerns

39% of patient respondents thought there was some exposure or condition at work that could affect their health. Concerns about ergonomic hazards and resulting stress on the body was the #1 concern about health on the job, followed by risk of traumatic injury (e.g., from falls, collisions).

Some cleaning products can cause or exacerbate asthma

Surveillance of work-related asthma in CA, MA, MI, and NJ revealed that 12% of reported cases involved cleaning products. Both new-onset and work-aggravated asthma were reported to be related to exposure to cleaning products. Occupations at risk include janitors, health care workers, and others working in settings such as schools, hospitals, and hotels. For more about work-related asthma, subscribe to the Occupational Lung Disease Bulletin by calling OHSP at 617-624-5632.

More information about health and safety issues among MA workers, and patient and provider information can be found at:

www.mass.gov/dph/OHSP

–Awareness of workers’ rights and benefits

The federal Occupational Safety and Health Act (legislation which created OSHA) and state Workers’ Compensation law provide important rights, benefits, and protections to workers. Awareness of OSHA and Workers’ Compensation can be interpreted as indicators of knowledge of workers’ rights and employer responsibilities. Surveyed patients were given a brief explanation of both OSHA and Workers’ Compensation and asked if they had ever heard of these resources.

Awareness of OSHA

- 63% of all patient respondents had never heard of OSHA.
- 68% of Puerto Rican born patients and 75% of patients born outside the U.S. had never heard of OSHA despite an average length of residency in the U.S. of 12 years (Table 5)

Table 5. Percentage of patients unaware of OSHA by place of origin

Place of Origin	Never heard of OSHA
United States (471)	41%
Puerto Rico (101)	68%
Other Country (834)	75%
All patients (1,406)	63%

Source, Occupational Health and CHC Patients, MDPH, 2007.

Awareness of Workers’ Compensation

39% of patients had never heard of Workers’ Compensation (Table 6).

Table 6. Percentage of patients unaware of Workers’ Compensation, by place of origin

Place of Origin	Never heard of Workers’ Compensation
United States (483)	15%
Puerto Rico (101)	42%
Other country (838)	52%
All patients (1,422)	39%

Source, Occupational Health and CHC Patients, MDPH, 2007.

Awareness of OSHA and Workers’ Compensation also varied by occupation

- Service workers, machine and equipment operators, fabricators, and laborers were least aware of OSHA or Workers’ Compensation.
- 73% of service workers had never heard of OSHA; 50% had never heard of Workers’ Compensation.
- 67% of operators, fabricators, and laborers had never heard of OSHA; 47% had never heard of Workers’ Compensation.
- Managers and professionals had highest awareness of OSHA (57%) and Workers’ Compensation (83%).

Safety training at work

- 42% of patients had not been given written health and safety information at work.
- 35% of those who had been given written information received it in a language they did not read well.
- 39% of patients had not received training about workplace health and safety.
- For 34% of those patients who had received training, the training was not in a language they understood well.

Who is eligible for Workers’ Compensation?

- Almost all workers, full-time and part-time.
- Citizens and immigrants, with or without “papers.”
- Volunteers and workers paid in cash “under the table.”

What benefits are provided?

Workers’ Compensation benefits include payment of medical bills, lost pay, travel to medical visits, job re-training in some cases, and death benefits for the family.

For patient informational materials (in English, Spanish, and Portuguese) call MDPH-OHSP at 617-624-5632 or download the booklets at www.mass.gov/dph under “Quick Links”.

–Health Problems from Work



Twenty-one percent of patients reported experiencing injuries, illnesses or other health problems in the previous year that they thought were related to their jobs (Table 7).

Table 7. Reported injuries and illnesses sustained during previous year*

Reported work-related injury or illness	%
Back pain and injury to the back	16
Cuts and lacerations	9
Respiratory conditions and respiratory tract irritation	9
Strains, sprains and tears	8
Fractures	5
Heat burns and scalds	4
Other: patients also reported infectious diseases, punctures, bruises and contusions, CTS and other musculoskeletal disorders, skin conditions and symptoms such as headache, nausea, malaise and fatigue	49
Total (N=303)	100%

* Among 303 patients reporting a work-related health problem.
Source, Occupational Health and CHC Patients, MDPH, 2007.

“Once a box fell and I was rushed to the hospital but the job didn’t pay for anything or help me with the bills.”

Packer for a paper company

–Required reporting of occupational health conditions



All health care providers practicing in Massachusetts are required to report certain occupational diseases and injuries to the Massachusetts Department of Public Health (MDPH). Mandated reporters include physicians, nurses, interns, psychologists, and other licensed professionals. These reporting requirements are part of a national effort to document the incidence of occupational diseases, injuries, and exposures, with the goal of preventing work-related health problems.

First passed in 1992 and updated in 2003, state public health regulations (105 CMR 300.000) require all health care providers to report the following diseases and injuries:

- **Occupational lung disease:** asthma caused or aggravated by workplace exposures, asbestosis, silicosis, beryllium disease, and chemical pneumonitis.

- **Serious work-related traumatic injuries** to persons less than 18 years of age
- **Work-related acute chemical poisoning:** carbon monoxide poisoning, pesticide poisoning, and other poisoning believed to be related to exposures to chemicals at work.
- **Heavy metal absorption:** mercury (blood >15 µg/L, urine >35 µg/gram creatinine), cadmium (blood >5 µg/L, urine >5 µg/gram creatinine), and any other case of heavy metal absorption believed to be related to exposures at work. (Lead levels >15 µg/dl in blood are reported by laboratories to the Division of Occupational Safety Occupational Lead Poisoning Registry)
- **Clusters of cases of any work-related condition**

(Required reporting of occupational health conditions continued next page)

The following information must be reported:

- Provider's name, address and phone number;
- Patient's name, address, phone number, race, sex, date of birth, and occupation;
- The employer's name, location, and type of business where the exposure or injury reportedly occurred;
- Confirmed or suspected diagnosis;
- Date of diagnosis; and
- The suspected hazard or exposure, if known.

Case report forms are available at:

http://www.mass.gov/Eeohhs2/docs/dph/occupational_health/confidential_report_form.pdf.

The required information may also be submitted in a letter, or by telephone, 617-624-5632, or after hours, 800-338-5223.

Case reports should be mailed to:

MDPH, OHSP

250 Washington Street 6th Floor

Boston, MA 02108

Fax to: 617-624-5696

Why report occupational conditions to MDPH?

Massachusetts' regulations (105 CMR 300.180) require reporting of these occupational diseases and injuries. Providers can play an important role in primary prevention of work-related health problems. Data from case reports and follow-up interviews are periodically summarized to identify industries and occupations in which workers are at risk. This information is used to guide intervention activities. MDPH can also provide technical consultations, presentations and grand rounds on occupational health, and provide assistance, and even workplace evaluations, to your patients.

What about HIPAA?

HIPAA expressly authorizes health care providers to disclose protected health information to MDPH, the public health authority authorized to receive it (45CFR § 164.512(b)).

Summary

Findings of the Occupational Health Survey are not necessarily representative of community health center patients throughout Massachusetts, nor of all patients at the five participating CHCs. However, these results suggest unmet needs for occupational health information, resources, and interventions among CHC patients. MDPH-OHSP has recently received funding from CDC-NIOSH to continue to work with CHCs to improve their ability to identify and address the occupational health needs of their patients. OHSP will be working with CHCs to develop approaches for ongoing collection of information about their patients' occupational health problems and to increase CHCs' access to occupational health resources.

Occupational Health Resources for Health Care Providers

Occupational Health Surveillance Program, MA Department of Public Health

617-624-5632, www.mass.gov/dph/ohsp/

OHSP provides surveillance reports on work-related injuries and illnesses in Massachusetts, and can offer technical assistance and training to health care providers on occupational health topics.

Publications for providers:

- Occupational Lung Disease Bulletin (quarterly)
- Reporting Occupational Diseases and Injuries
- Protecting Working Teens - A Guide for Healthcare Workers
- Occupational Health Information and Services in Massachusetts: A Resource Guide

Occupational and Environmental Medicine, Harvard Medical School
(note: not affiliated with MDPH)

- Physician's Guide to Workers' Compensation
www.hms.harvard.edu/oed/themes2/oem/workercomp.html

Publications for patients:

- Workers' Compensation in Massachusetts
- Your Rights Under OSHA
- Protecting Working Teens - A Guide for Parents
- Under 18 and Hurt on the Job - Information on Workers' Compensation
- Occupational Health Information and Services in Massachusetts: A Resource Guide

Massachusetts Coalition for Occupational Safety and Health

* Addressing Work-Related Illnesses and Injuries: A Guide for Primary Care Providers in Massachusetts

<http://www.massosh.org/documents/BookorderForm.pdf>

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This project was funded through a cooperative agreement between MDPH-OHSP and the CDC's National Institute for Occupational Safety and Health (NIOSH). The agreement provided funding for MDPH-OHSP to conduct this survey with several community health centers in Lowell, Dorchester, Cambridge, and Chelsea, and to explore the potential for ongoing collection of data about work-related injuries and illnesses through CHCs. CHCs participated in the survey project by responding to a Request for Responses released by the MDPH.

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