

Chapter 5. Industries and Occupations of Patients

This chapter provides data describing the distribution of industries and occupations of the NYS Occupational Health Clinic Network (OHCN) occupational patients. Major disease diagnoses and etiologic agents by each industry grouping are also examined. Patients are presented by all industries or occupations they worked in during the time period represented by their clinic visits; therefore, the number of industries and occupations reported exceeds the number of patients. If a patient's diagnosis was associated with a previous job, only that industry and occupation is presented.

Industry categories were classified utilizing the main categories of the Standard Industrial Classification Codes (1987)1:

- 01-09: Agriculture, forestry, and fishing;
- 10-14: Mining;
- 15-17: Construction;
- 20-39: Manufacturing;
- 40-49: Transportation;
- 50-51: Wholesale trade;
- 52-59: Retail trade;
- 60-67: Finance, insurance, and real estate;
- 70-89: Services;
- 91-97: Public administration; and
- 99: Nonclassifiable establishments.

Occupation categories were classified using the 1990 Bureau of Census Occupational Classification System²:

003-199: Managerial & Professional Specialty Occupations:

- 003-068: Professional specialty;
- 069-083: Natural scientist;
- 084-106: Health treating;
- 113-163: Teachers;
- 164-199: Other professionals.

203-389: Technical, Sales and Administrative Support Occupations:

- 203-235: Technicians;
- 243-285: Sales;
- 303-389: Administrative support.

403-469: Service:

- 403-407: Private household;
- 413-427: Protective service;
- 433-469: Other service.

473-499: Farming, Forestry, and Fishing Occupations

503-699: Precision production, Craft, and Repair Occupations:

- 503-549: Mechanics;
- 553-599: Construction trades;
- 613-617: Extractive;
- 628-699: Precision production.

703-889: Operators, Fabricators and Laborers:

- 703-799: Machine operators;
- 803-814: Motor vehicle operators;
- 823-834: Transportation;
- 843-859: Material moving;
- 864-889: Laborers.

There were only 178 patients employed in the military, so these patients were not examined separately.

When examining the diagnoses or exposures of patients within an industry or an occupation, patients are presented by the first time a diagnosis is made or an exposure is recorded within that job. Patients often have more than one diagnosis recorded. Putative exposures are identified by the clinicians based on the patient's diagnosis or reason for the visit. Up to two potential etiologic agents can be identified for each diagnosis. A patient may have one exposure associated with multiple diagnoses. The number of exposures is defined as one exposure per diagnosis per patient. Therefore, the number of exposures far exceeds the number of patients.

Figure 5.1. Industries of employment of NYS OHCN patients, by patient type. Occupational Health Clinic Network Patients seen between 1988 and 2003 were primarily employed in services, construction and public administration industries. Approximately half of those employed in services and public administration were symptomatic patients, while only 36% of those employed in construction were symptomatic patients.

Figure 5.1. Industries of Employment of NYS OHCN Patients, by Patient Type

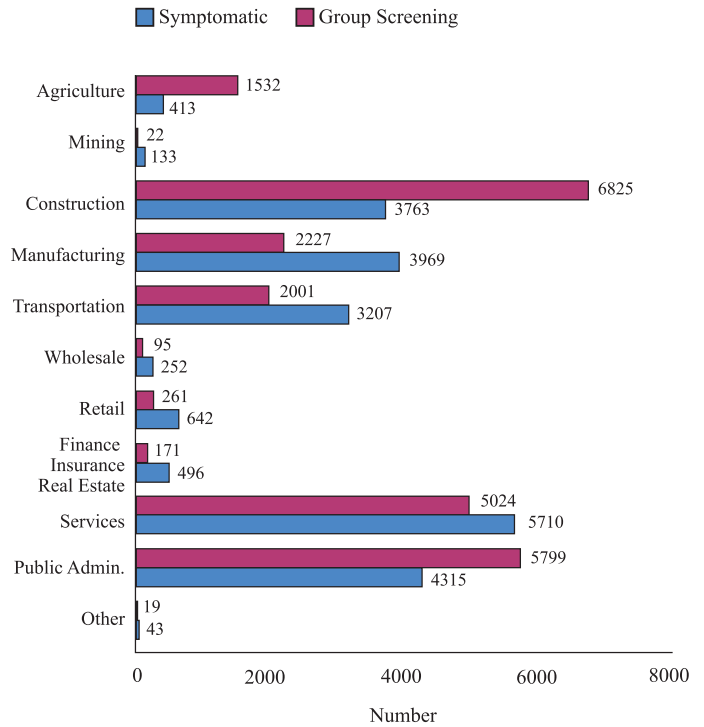


Figure 5.2. Occupations of employment of NYS OHCN patients, by patient type. Both symptomatic and group screening patients seen between 1988 and 2003 reported employment in precision production, craft and repair occupations primarily in construction trades, mechanics and precision production occupations (data not shown). A high number of group screening patients were employed in the services industry (n=6,595), primarily in protective services (data not shown).

Figure 5.2. Occupations of Employment of NYS OHCN Patients, by Patient Type

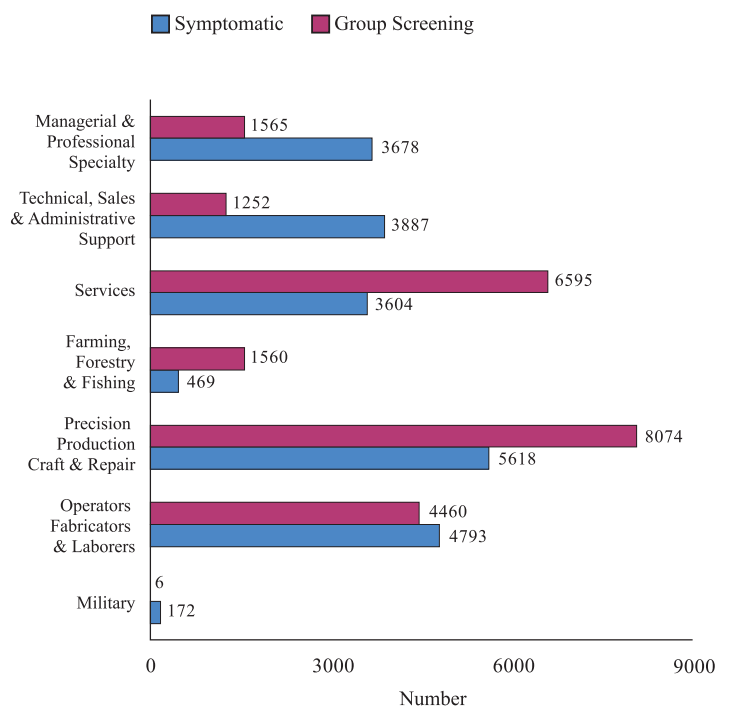
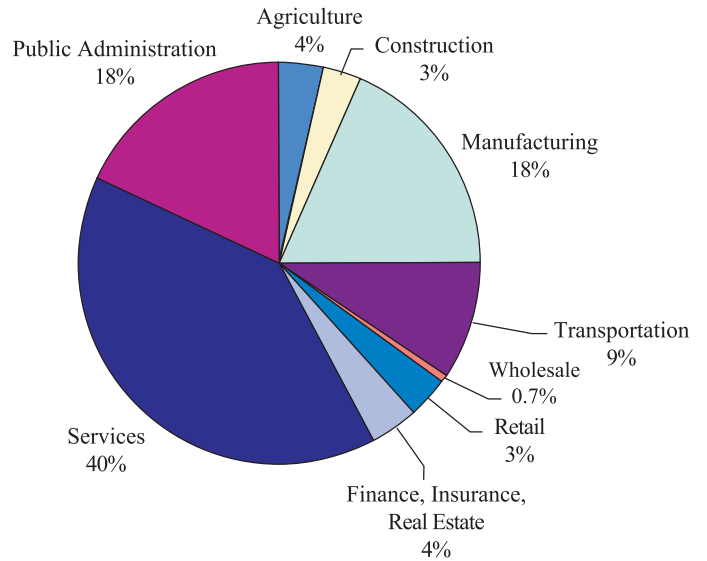


Figure 5.3. Percent of industry of employment of NYS OHCN patients, by sex. Among the Clinic patients, females were employed primarily in the services (40%), manufacturing (18%) and public administration (18%) industries. Males were primarily employed in the construction (29%), public administration (23%) and services (17%) industries. Almost all of the clinic patients employed in mining industries and construction industries were male (99% and 97%, respectively); approximately three-quarters of those employed in agriculture, transportation, wholesale trade, and public administration were male (78%, 79%, 77% and 79%, respectively); and slightly more than half of those employed in retail, services and “other” industries were male (56%, 56%, and 55%, respectively; data not shown). A higher number of females than males reported employment in managerial and professional specialty occupations (n=2,793 vs. 2,444) and in technical, sales and administrative support occupations (n=3,502 vs. 1,631) (data not shown).

Figure 5.3. Percent of Industry of Employment of NYS OHCN Patients, by Sex

Females



Males

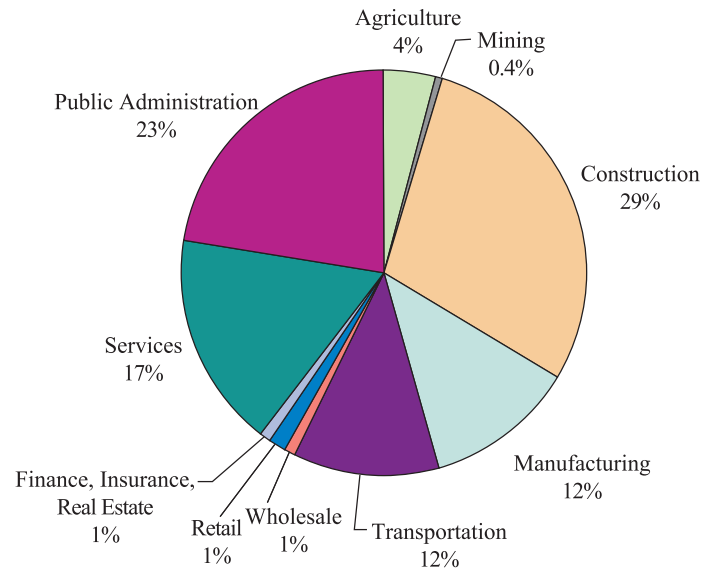
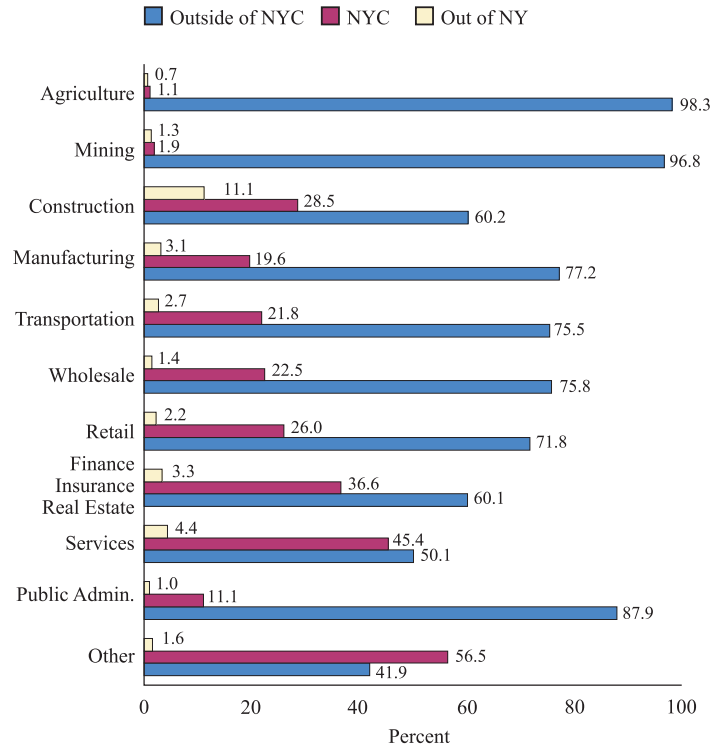


Figure 5.4. Geographic region of residence of NYS OHCN patients, by industry. Since 70% of the patients resided in NYS outside of NYC (Figure 2.4), the majority of the patients in each industry category reside in NYS outside of NYC. There were a high percentage of NYC residents employed in “other” (56%), services (45%), and finance (37%) industries. A relatively high percent of those employed in construction (11%) were not residents of NYS.

Figure 5.4. Geographic Region of Residence of NYS OHCN Patients, by Industry

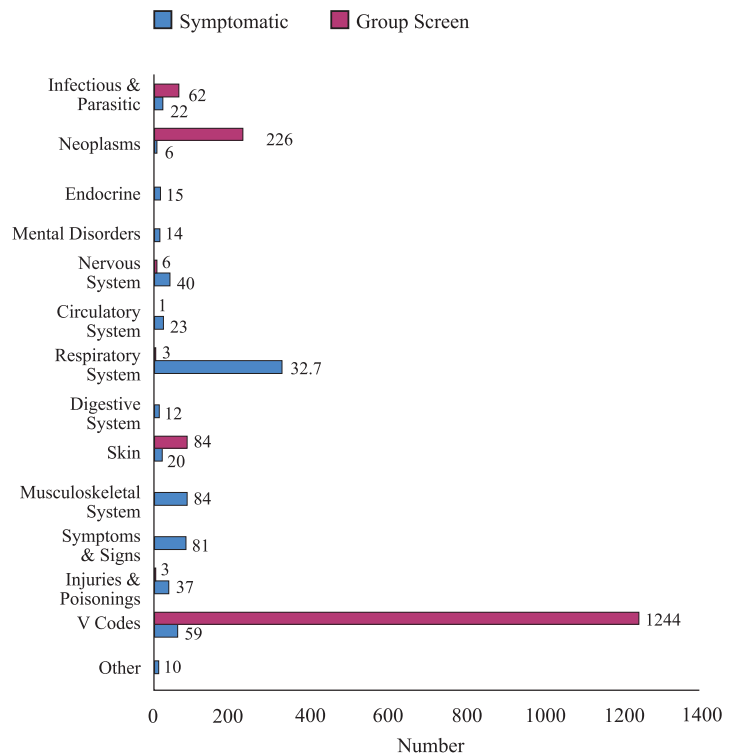


Industries

Agriculture, Forestry and Fishing (SIC Codes 01-09)

Figure 5.5. Diagnoses among NYS OHCN patients working in the agriculture, forestry and fishing industry, by patient type. Among symptomatic patients working in the agriculture, forestry and fishing industry, there were 327 diagnoses of respiratory diseases. Forty percent of these were asthma diagnoses, 14% were extrinsic allergic alveolitis including farmers' lung and 13% were chronic bronchitis (data not shown). As previously described (Figures 3.4 and 3.21), the high number of neoplasms and skin diseases diagnosed among group screening patients were diagnoses of skin cancer or pre-cancerous skin conditions.

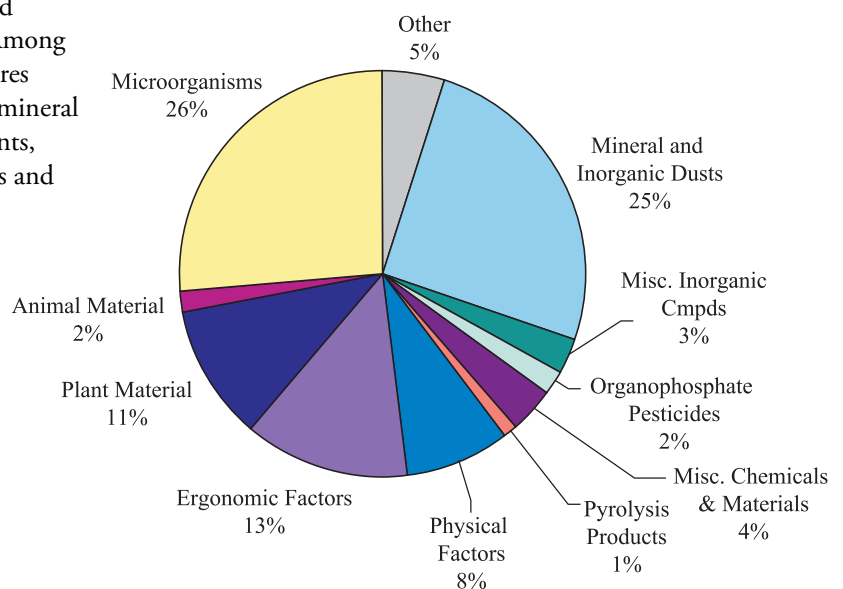
Figure 5.5. Diagnoses¹ Among NYS OHCN Patients Working in the Agriculture, Forestry and Fishing Industry, by Patient Type



¹Excludes V-codes for 59 symptomatic, and 1,244 group screen patients

Figure 5.6. Exposures among NYS OHCN symptomatic patients working in the agriculture, forestry and fishing industry. There were 2,161 exposures identified among the agricultural, forestry and fishing patients. Among the symptomatic patients, 26% of the reported exposures were to microorganisms, primarily mold; and 25% to mineral and inorganic dusts. Among the group screening patients, 52% of the reported exposures were to microorganisms and 47% were to physical factors (data not shown).

Figure 5.6. Exposures Among NYS OHCN Symptomatic Patients Working in the Agriculture, Forestry and Fishing Industry



Mining
(SIC Codes 10-14)

Figure 5.7. Diagnoses among NYS OHCN patients working in the mining industry, by patient type. Among the 157 individuals working in the mining industry, there were 627 diagnoses, of which only 48 of these diagnoses were among group screening patients. The primary diagnoses observed for all individuals working in mining were respiratory diseases (n=200), primarily chronic bronchitis (n=71), pleurisy (n=25), and chronic obstructive pulmonary disease (n=25). There were 163 nervous system disease diagnoses of which 147 (90%) were noise-induced hearing loss.

Figure 5.7. Diagnoses Among NYS OHCN Patients Working in the Mining Industry, by Patient Type

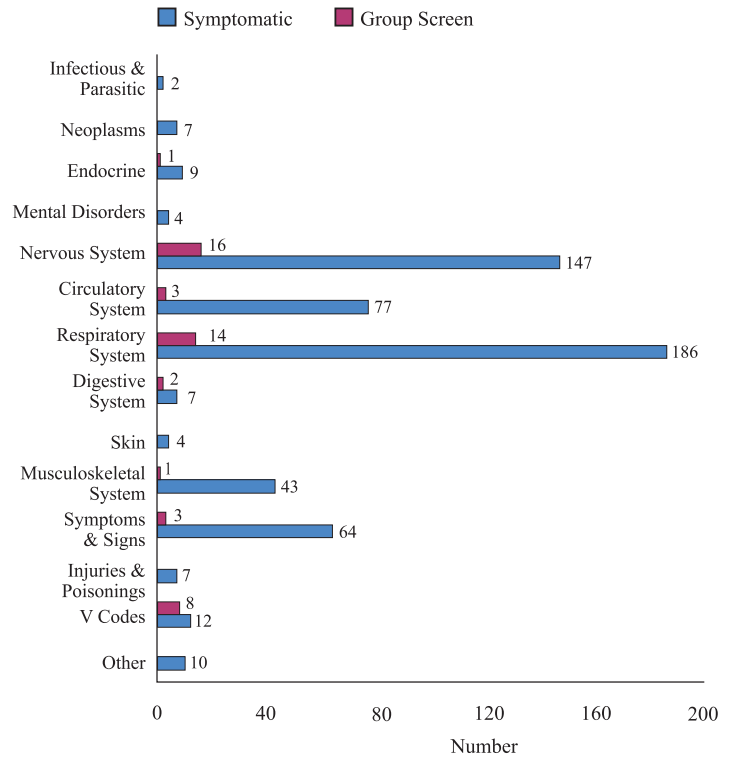
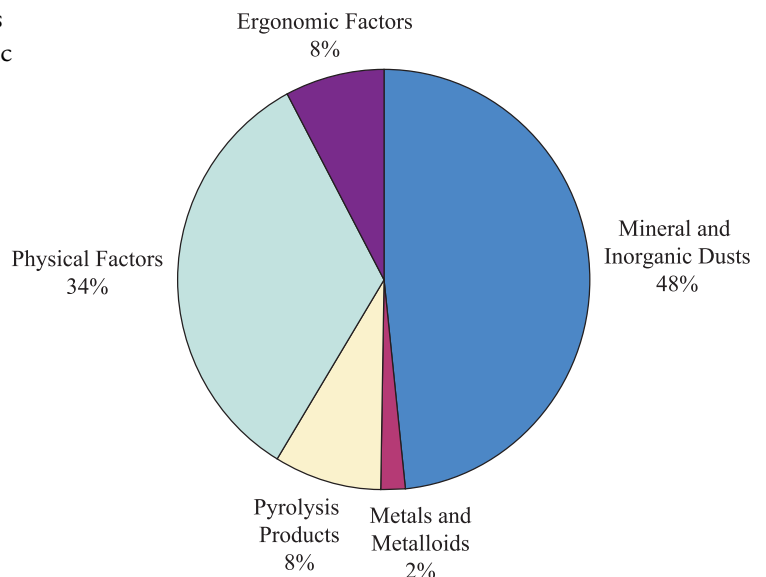


Figure 5.8. Exposures among NYS OHCN patients working in the mining industry. There were 490 exposures identified among the patients working in the mining industry. Most of the mineral and inorganic dust exposures were to unspecified dusts (n=134), asbestos (n=55), and talc (n=31). Exposures to physical factors which accounted for 34% of the exposures among the patients in this industry were primarily to noise (n=148).

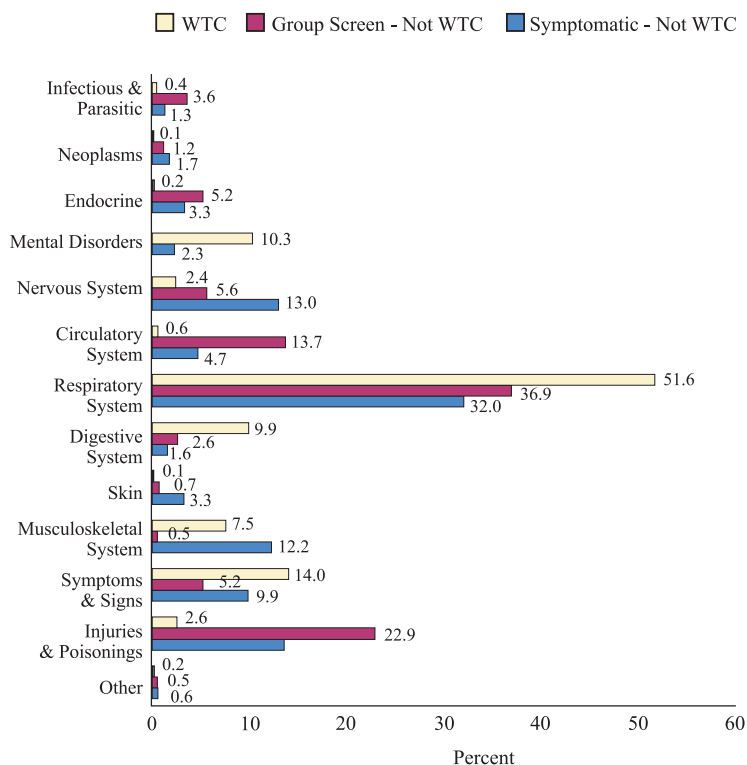
Figure 5.8. Exposures among NYS OHCN Patients Working in the Mining Industry



Construction (SIC Codes 15-17)

Figure 5.9. Diagnoses among NYS OHCN patients working in the construction industry, by patient type. There were 14,688 diagnoses among the 10,588 patients employed in the construction industry. Of these, 8% were associated with the World Trade Center (WTC), 57% were among group screening patients, and 59% were V-codes. Patients recorded with V-codes in their medical records were not currently sick and encountered the NYS OHCN for some specific purpose such as to receive prophylactic vaccinations or to be screened for conditions for which the patients were at high risk (such as Lyme disease, asbestos screenings, and lead screenings). These patients are not included in the chart. Excluding V-codes, the primary diagnoses were respiratory diseases. Among those patients not related to the WTC, 747 (15%) were pleurisy, 318 (6%) were asbestosis, and 124 (2%) were asthma; among the WTC patients, 144 (16%) were chronic pharyngitis, 88 (10%) were asthma, and 80 (9%) were chronic sinusitis. Among the injuries and poisonings, there were 702 diagnoses of lead poisoning with 468 (67%) identified among the group screening population.

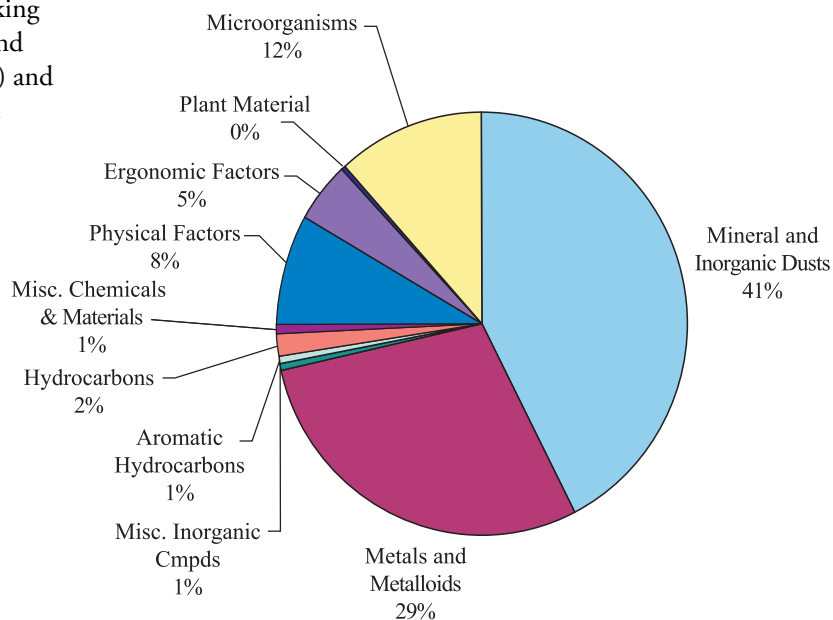
Figure 5.9. Diagnoses¹ Among NYS OHCN Patients Working in the Construction Industry, by Patient Type



¹Excludes V-codes for 2,735 symptomatic, and 6,076 group screen patients

Figure 5.10. Exposures among NYS OHCN patients working in the construction industry. There were 9,820 exposures identified among the patients working in the construction industry. Most of the mineral and inorganic dust exposures were to asbestos (n=2,408) and unspecified dusts (n=695). Exposures to metals and metalloids were primarily to lead (n=2,603), while exposures to microorganisms were primarily non-specified infectious agents.

Figure 5.10. Exposures Among NYS OHCN Patients Working in the Construction Industry



Manufacturing
(SIC Codes 20-39)

Figure 5.11. Diagnoses among NYS OHCN patients working in the manufacturing industry, by patient type. Among the 6,196 patients employed in the manufacturing industry, there were 11,341 diagnoses. Of these, 26% (n=2,952) were group screening patients, and 23% (n=2,595) were V-codes. Excluding the V-codes, the primary diagnoses were musculoskeletal diseases of which there were 577 enthesopathy diagnoses. Diseases of the respiratory system accounted for the next largest group of which there were 427 asthma diagnoses and 302 diagnoses of respiratory conditions due to chemical fumes and vapors. The third largest category of diagnoses were nervous system disorders, primarily carpal tunnel syndrome (n=582) and noise-induced hearing loss (n=523).

Figure 5.11. Diagnoses Among NYS OHCN Patients Working in the Manufacturing Industry, by Patient Type

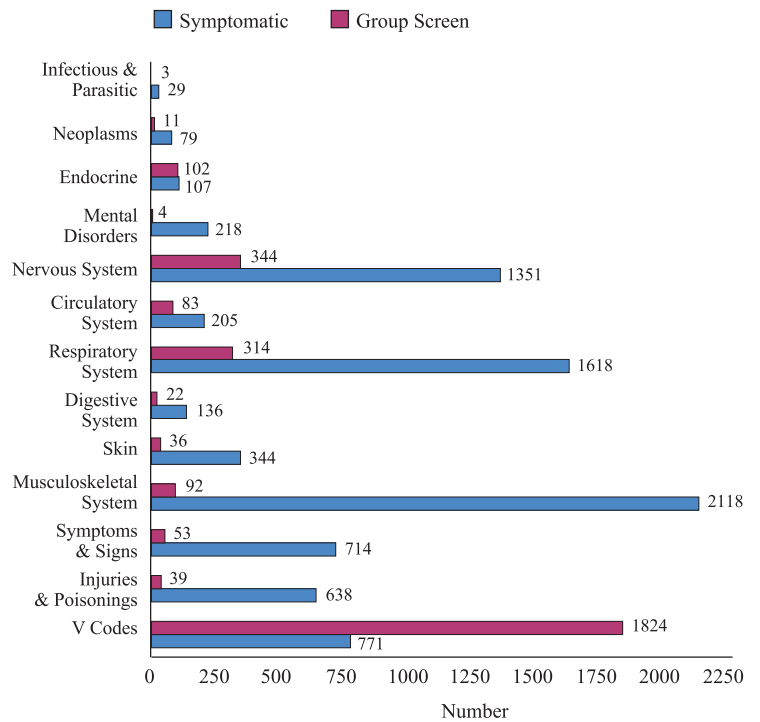
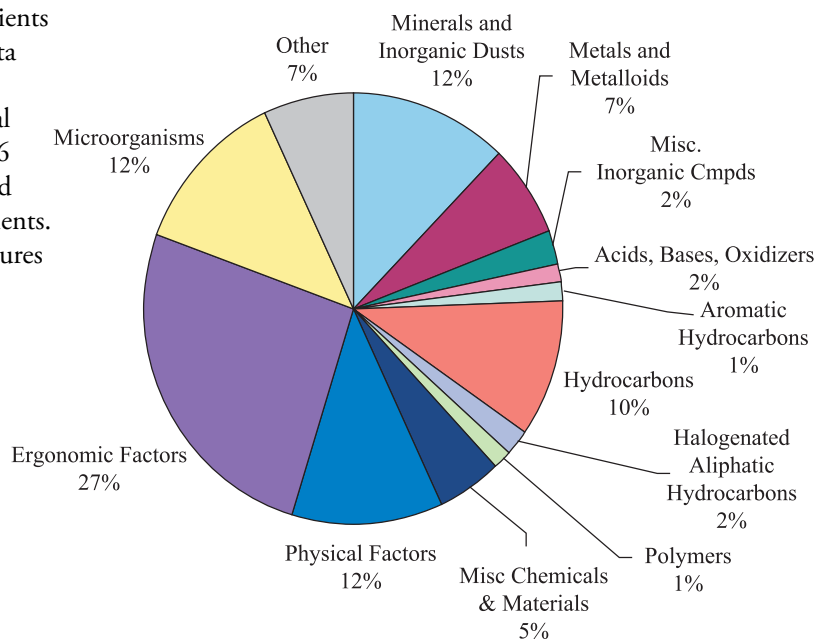


Figure 5.12. Exposures among NYS OHCN patients working in the manufacturing industry. Among the patients working in the manufacturing industry, there were 8,036 exposures identified. Over half of the patients working in this industry were machine operators (data not shown). The majority of the specified ergonomic factors involved repetitive motion (n=1,240). Mineral and inorganic dusts were primarily asbestos, with 346 exposures identified among symptomatic patients and 213 exposures identified among group screening patients. There were 411 exposures to solvents, and 756 exposures to noise of which 58% were among group screening patients (data not shown).

Figure 5.12. Exposures Among NYS OHCN Patients Working in the Manufacturing Industry



Transportation
(SIC Codes 40-49)

Figure 5.13. Occupations of NYS OHCN patients working in the transportation industry, by patient type. There were 1,974 patients in the transportation industry who were employed in precision production, craft and repair occupations, (includes mechanics, construction trades, and precision production), primarily as telephone and telephone line installers and repairers. There were 1,900 transportation industry patients employed as operators, fabricators and laborers, with 504 employed as bus drivers (all but two were symptomatic patients), and 534 employed as bridge, lock and lighthouse tenders (only 7 were symptomatic patients). There were 721 transportation industry patients working in administrative support occupations with 153 as postal or mail clerks or mail carriers, and 84 as general office clerks.

Figure 5.13. Occupations of NYS OHCN Patients Working in the Transportation Industry, by Patient Type

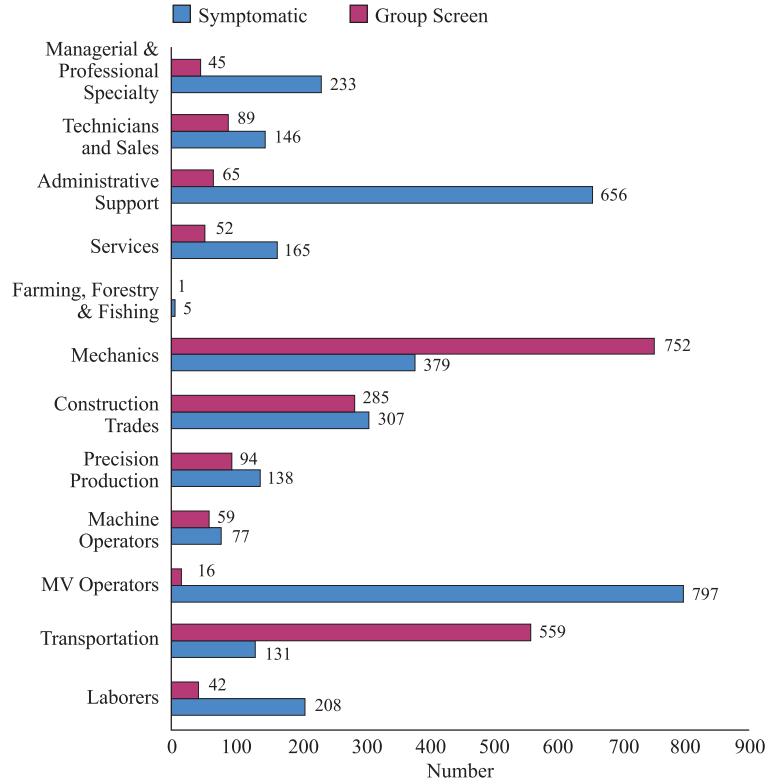


Figure 5.14. Diagnoses among NYS OHCN patients working in the transportation industry, by patient type. Among the 5,208 patients employed in the transportation industry, there were 7,880 diagnoses of which almost one-third (32%) were among group screening patients. Excluding V-codes, patients working in the transportation industry were primarily diagnosed with diseases of the musculoskeletal system (n=1,155) with 295 diagnoses of various enthesopathies, 75 diagnoses of myalgia, 74 of lumbago, and 72 of de Quervain's disease. There were 1,184 diagnoses of diseases of the respiratory system including 212 with pleurisy, 205 with asbestosis, and 178 with asthma.

Figure 5.14. Diagnoses Among NYS OHCN Patients Working in the Transportation industry, by Patient Type

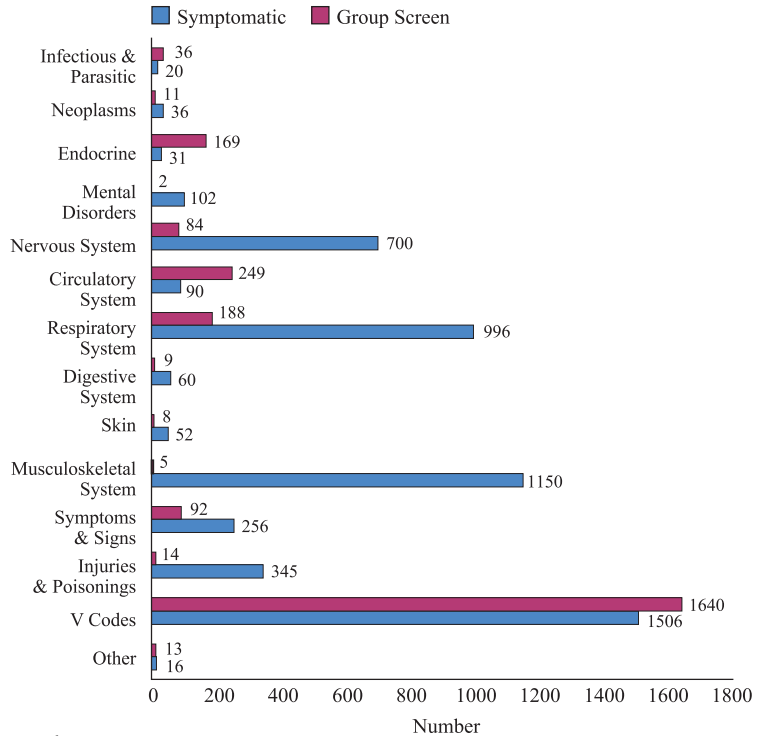
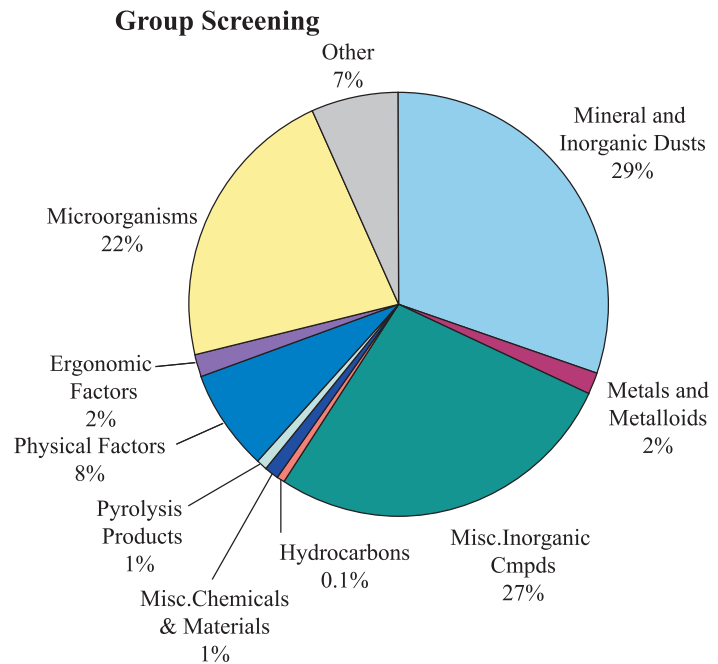
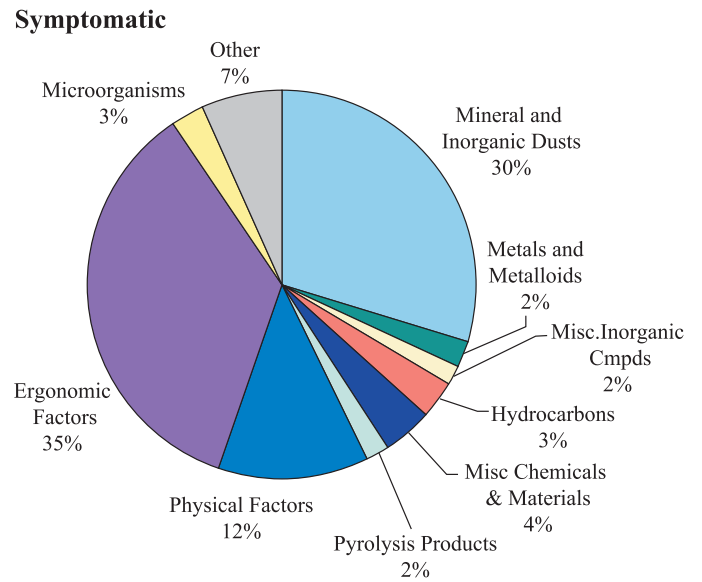


Figure 5.15. Exposures among NYS OHCN patients working in the transportation industry, by patient type. Among the patients working in the transportation industry, there were 4,733 exposures identified. Among symptomatic patients, there were 942 exposures to ergonomic factors, primarily repetitive motion (n=561), stress (n=67), and heavy lifting (n=59). There were also 793 exposures to minerals and inorganic dusts, primarily asbestos (n=532). Among the group screening patients, there were 625 screenings for exposures to minerals and inorganic dusts of which 554 were for asbestos; 560 to miscellaneous inorganic compounds of which 454 were screenings for exposure to carbon monoxide, and 454 screenings for microorganisms.

Figure 5.15. Exposures Among NYS OHCN Patients Working in the Transportation Industry, by Patient Type



Wholesale Trade (SIC Codes 50-51)

Figure 5.16. Occupations of NYS OHCN patients working in the wholesale trade industry, by patient type. Patients working in the wholesale trade industry were primarily employed as operators, fabricators and laborers (n=140) with 74 employed as machine operators and 32 employed as motor vehicle operators. Another 105 were employed in technical, sales and administrative support occupations with 40 in sales and 37 in administrative support.

Figure 5.16. Occupations of NYS OHCN Patients Working in the Wholesale Trade Industry, by Patient Type

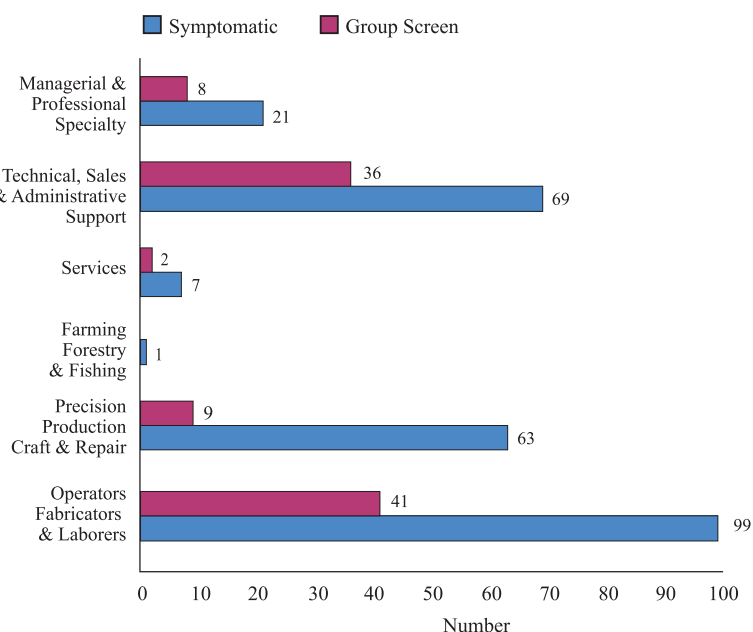


Figure 5.17. Diagnoses among NYS OHCN patients working in the wholesale trade industry, by patient type. Among the 347 patients employed in the wholesale trade industry, there were 348 diagnoses of which 28% were group screenings with only V-codes recorded as their diagnoses. Excluding V-codes, patients working in the wholesale trade industry were primarily diagnosed with diseases of the musculoskeletal system (n=52), the respiratory system (n=43), and the nervous system (n=29). No specific diseases were diagnosed in a large proportion of this population.

Figure 5.17. Diagnoses Among NYS OHCN Patients Working in the Wholesale Trade Industry, by Patient Type

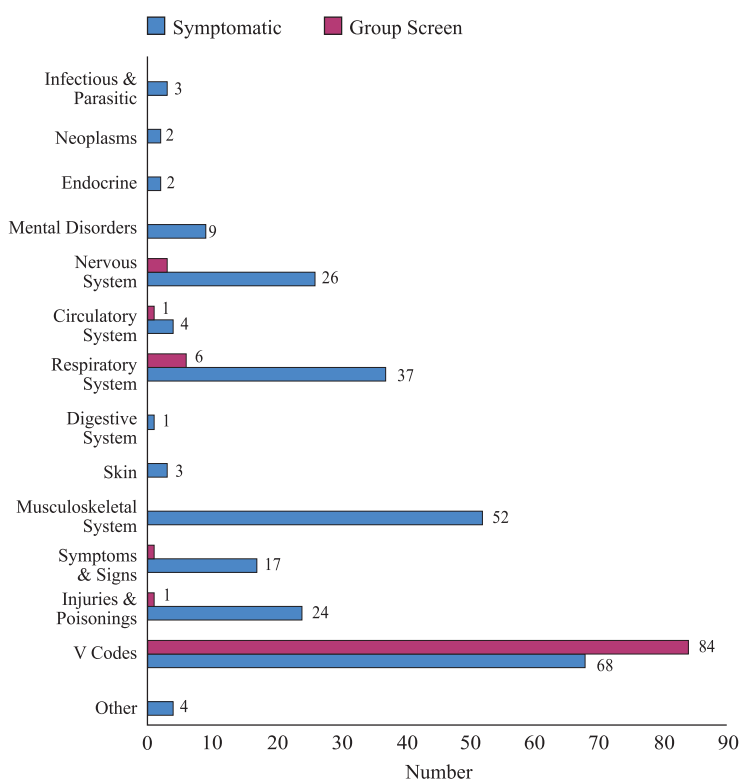
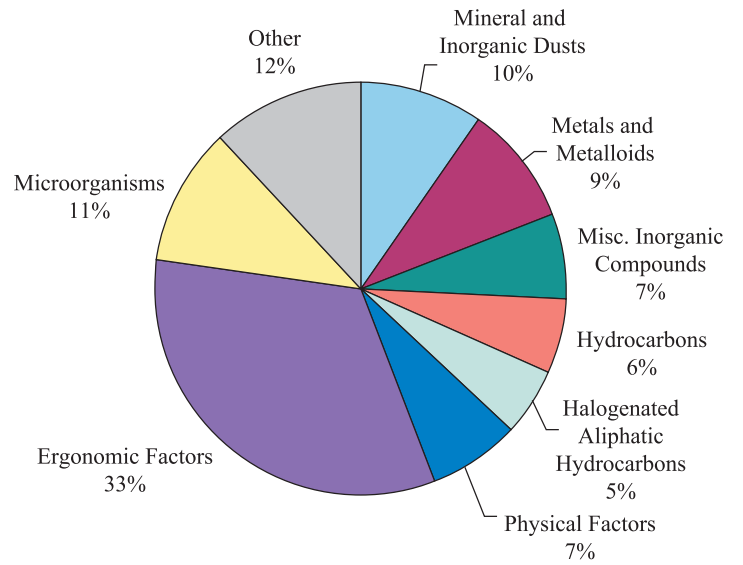


Figure 5.18. Exposures among NYS OHCN patients working in the wholesale trade industry. Among the patients employed in the wholesale trade industry, there were 350 exposures identified. One-third of these were to ergonomic factors, primarily repetitive motion. There were 38 exposures to microorganisms, primarily infectious agents among the group screening population.

Figure 5.18. Exposures among NYS OHCN Patients Working in the Wholesale Trade Industry



Retail Trade
(SIC Codes 52-59)

Figure 5.19. Occupations of NYS OHCN patients working in the retail trade industry, by patient type.

Patients working in the retail trade industry were primarily employed in technical, sales and administrative support occupations (n=269) with 108 employed as sales workers and 42 as sales supervisors. Another 205 patients were employed in precision production, craft and repair occupations with 90 employed as mechanics and repairers. There were 188 patients employed in services occupations with 159 working in food preparation and service.

Figure 5.19. Occupations of NYS OHCN Patients Working in the Retail Trade Industry, by Patient Type

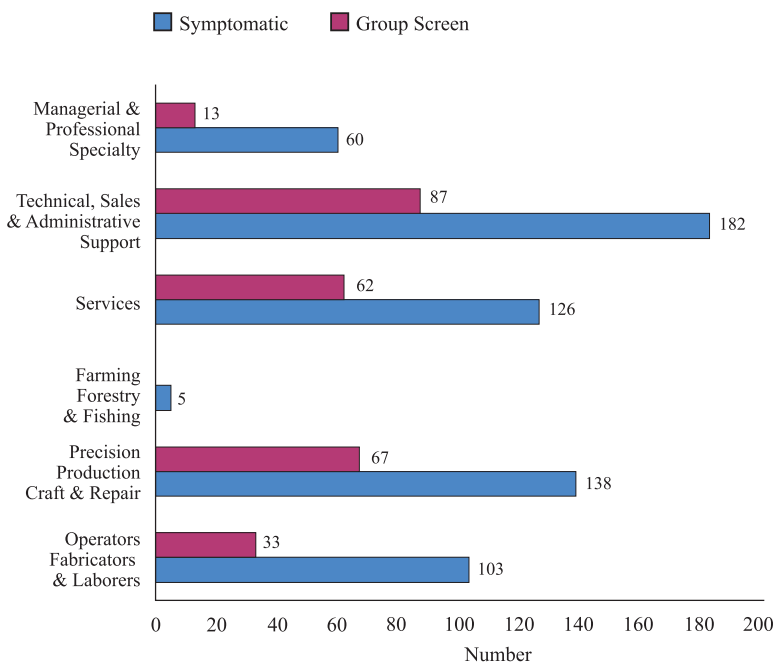


Figure 5.20. Diagnoses among NYS OHCN patients working in the retail trade industry, by patient type.

Among the 903 patients employed in the retail trade industry, there were 862 diagnoses of which 30% were group screenings. Excluding V-codes, patients working in the retail trade industry were primarily diagnosed with diseases of the musculoskeletal system (n=173), followed by the respiratory system (n=125) with 40 asthma diagnoses and the nervous system (n=120) with 67 diagnoses of carpal tunnel syndrome.

Figure 5.20. Diagnoses Among NYS OHCN Patients Working in the Retail Trade Industry, by Patient Type

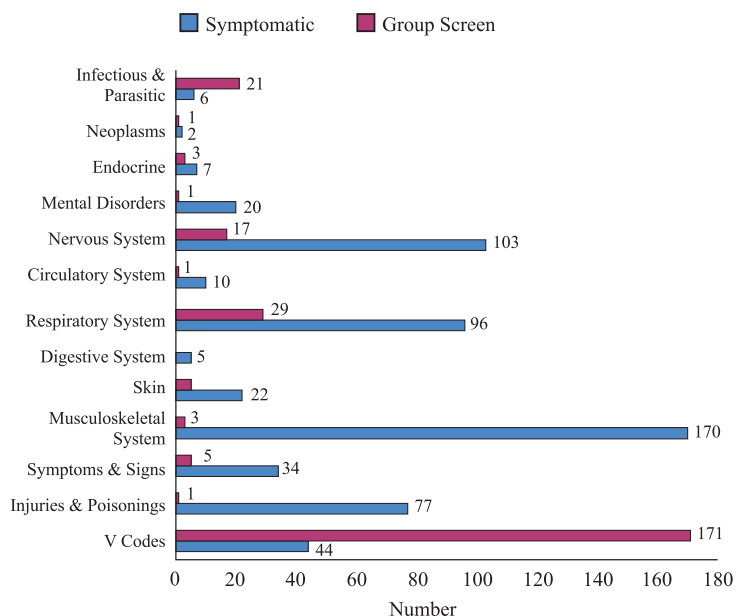
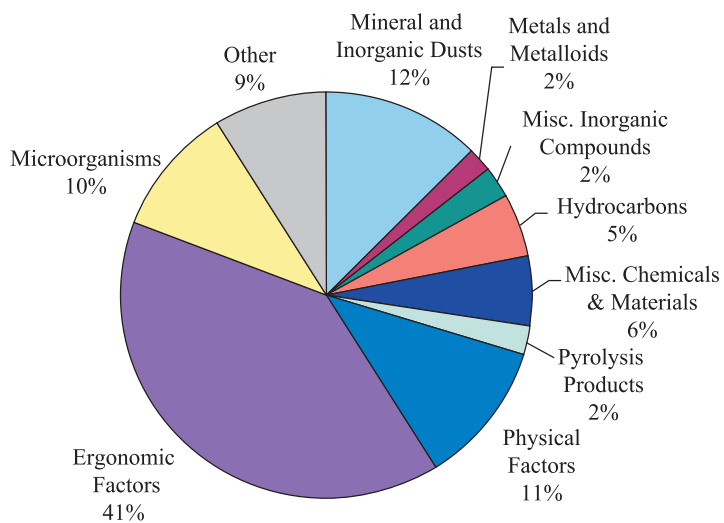


Figure 5.21. Exposures among NYS OHCN patients working in the retail trade industry. There were 966 exposures identified among the patients employed in the retail trade industry. The majority of these were ergonomic factors (n=385), primarily repetitive motion (n=178). There were 120 exposures to mineral and inorganic dusts including 54 to nonspecified dusts and 61 to asbestos. Another 111 exposures were to physical factors primarily lifting (n=69).

Figure 5.21. Exposures Among NYS OHCN Patients Working in the Retail Trade Industry



Finance, Insurance and Real Estate (SIC Codes 60-67)

Figure 5.22. Diagnoses among NYS OHCN patients working in the finance, insurance and real estate industry, by patient type. There were 658 diagnoses among the 667 patients employed in the finance, insurance and real estate industry, of which 26% were group screenings. Patients were primarily employed in administrative support occupations including secretaries and computer operators (data not shown). Excluding V-codes, patients working in this industry were primarily diagnosed with diseases of the musculoskeletal system (n=139) with 57 diagnoses of peripheral enthesopathies, followed by the respiratory system (n=90) with 28 asthma diagnoses and the nervous system (n=76) with 48 diagnoses of carpal tunnel syndrome.

Figure 5.22. Diagnoses Among NYS OHCN Patients Working in the Finance, Insurance and Real Estate Industry, by Patient Type

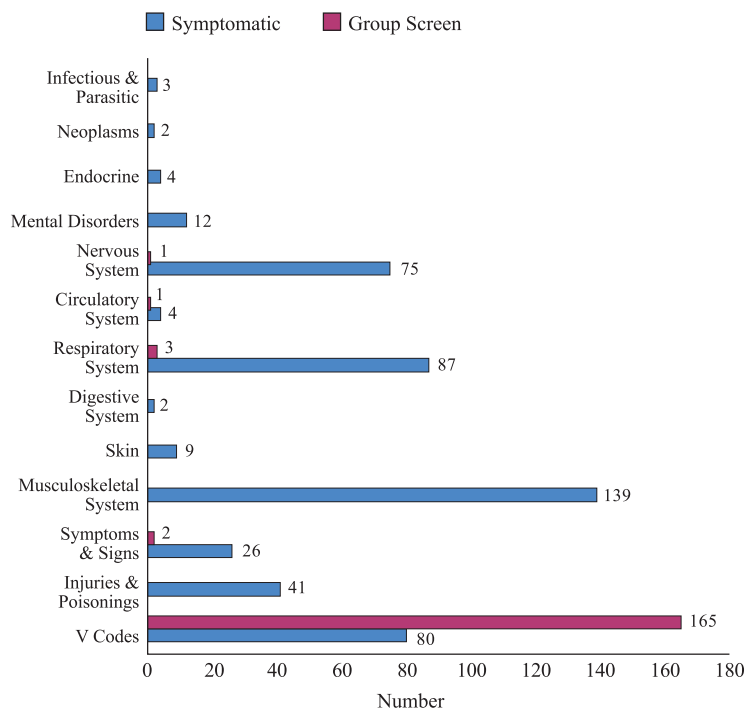
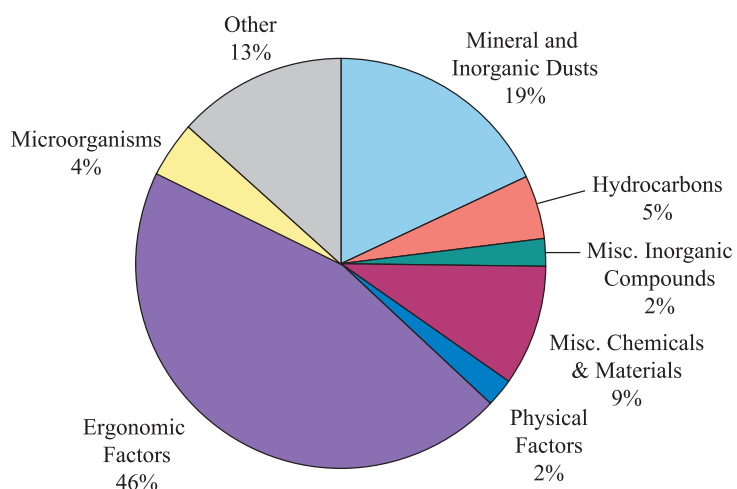


Figure 5.23. Exposures among NYS OHCN patients working in the finance, insurance and real estate industry. There were 593 exposures identified among the patients employed in the finance, insurance and real estate industry. The majority of the exposures (n=269) were to ergonomic factors, primarily repetitive motion (n=173). There were another 107 exposures to mineral and inorganic dusts, almost equally divided between nonspecified dusts and asbestos.

Figure 5.23. Exposures Among NYS OHCN Patients Working in the Finance, Insurance and Real Estate Industry



Services
(SIC Codes 70-89)

Figure 5.24. Occupations of NYS OHCN patients working in the services industry, by patient type.

Patients working in the services industry were primarily employed in service occupations. Within the services occupations, 67% were seen as part of group screenings. The principal services occupations included 2,126 working in cleaning and building service occupations excluding households; 474 in protective services including 421 working in firefighting and fire prevention occupations; 225 in personal service occupations including 109 in childcare; 222 in private households; and 210 in food preparation and service occupations. There were 2,820 service industry patients working in managerial and professional specialty occupations, of which 27% were group screenings. These included 771 teachers, 669 in professional specialties, and 525 in health treating occupations. Another 2,009 patients were employed in technical, sales and administrative support occupations, of which 21% were group screenings. These patients were primarily in administrative support occupations, including secretaries, stenographers and typists (n=447) and general office clerks (n=152).

Figure 5.24. Occupations of NYS OHCN Patients Working in the Services Industry, by Patient Type

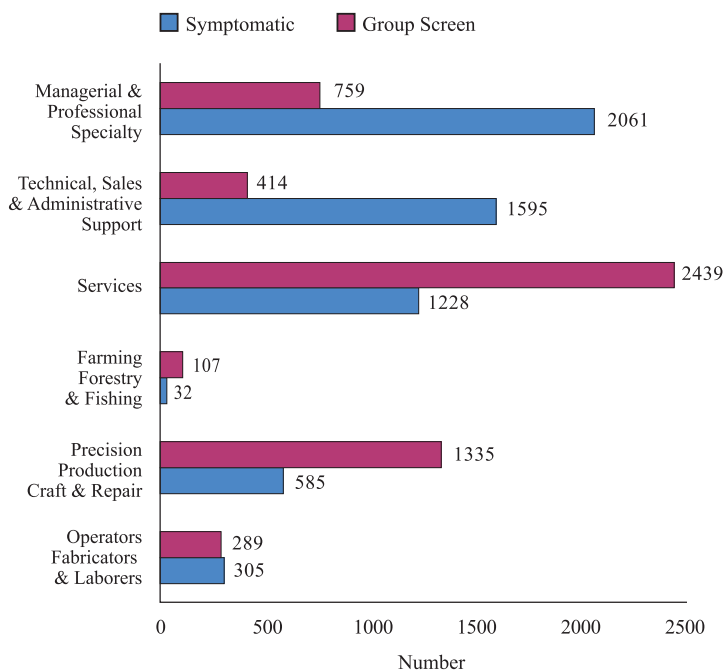


Figure 5.25. Diagnoses among NYS OHCN patients working in the services industry, by patient type.

Among the 10,734 patients employed in the services industry, there were 10,744 diagnoses of which 47% were group screenings (n=5,053) and 44% were V-codes (n=4,745). Excluding V-Codes, patients working in the services industry were diagnosed primarily with diseases of the respiratory system (n=1,610) including 377 diagnoses of asthma, 258 diagnoses of chronic pharyngitis and sinusitis, 171 diagnoses of asbestosis, and 158 diagnoses of pleurisy. There were 1,234 diagnoses of diseases of the musculoskeletal system including 120 diagnoses of enthesopathy of the elbow region, 92 diagnoses of myalgia, and 92 diagnoses of unspecified enthesopathy.

Figure 5.25. Diagnoses Among NYS OHCN Patients Working in the Services Industry, by Patient Type

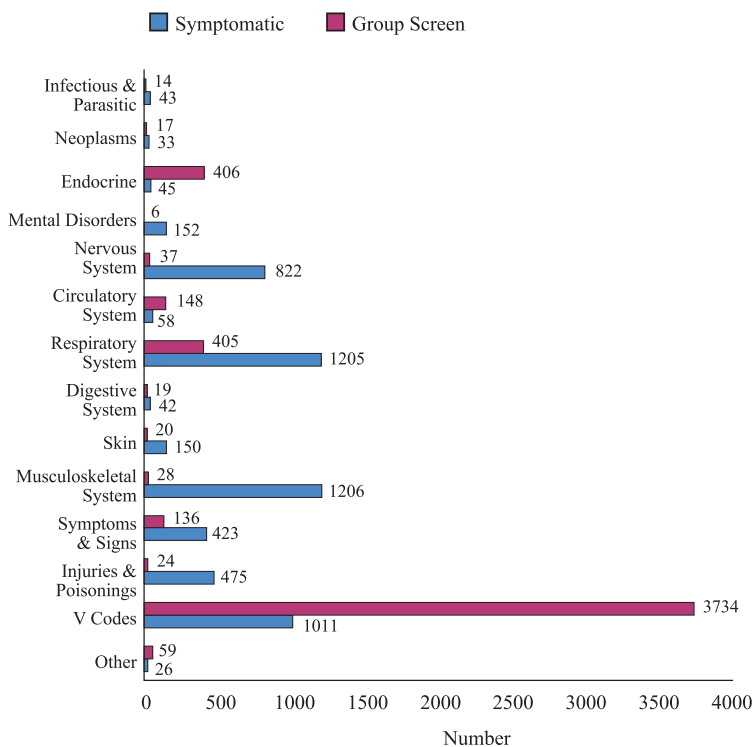
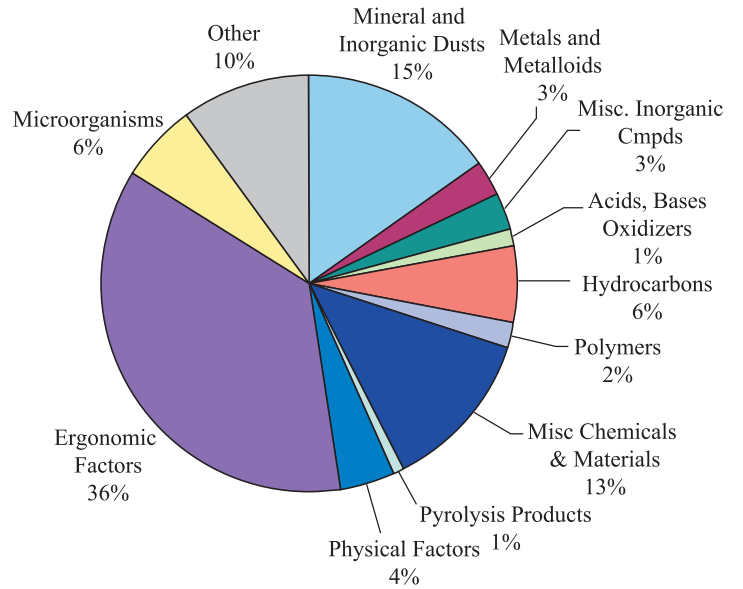


Figure 5.26. Exposures among NYS OHCN patients working in the services industry, by patient type.

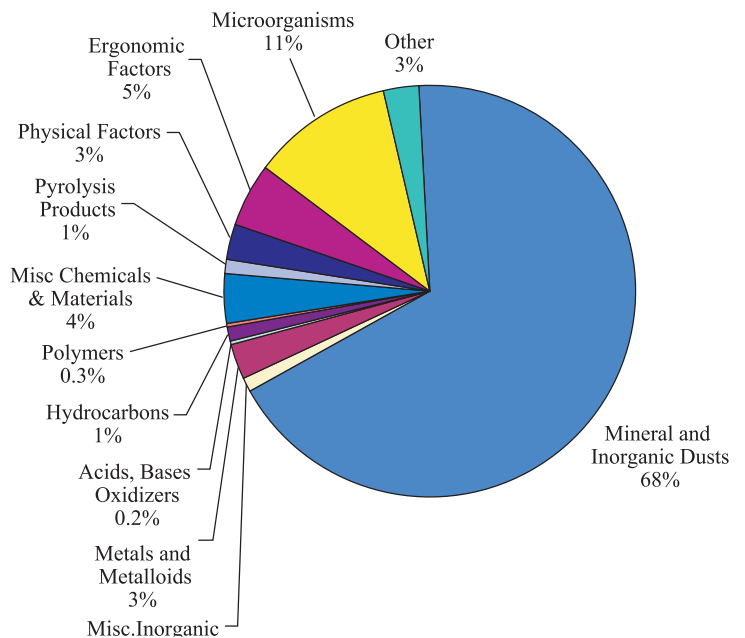
Among patients working in the services industry, there were 10,952 exposures identified. Of these, 3,926 were to mineral and inorganic dusts, of which 74% were part of group screenings primarily for asbestos exposure. There were 2,631 exposures to ergonomic factors among these patients, of which 8% were group screenings. These exposures were primarily repetitive motion (n=1,576) and stress (n=285).

Figure 5.26. Exposures Among NYS OHCN Patients Working in the Services Industry, by Patient Type

Symptomatic



Group Screening

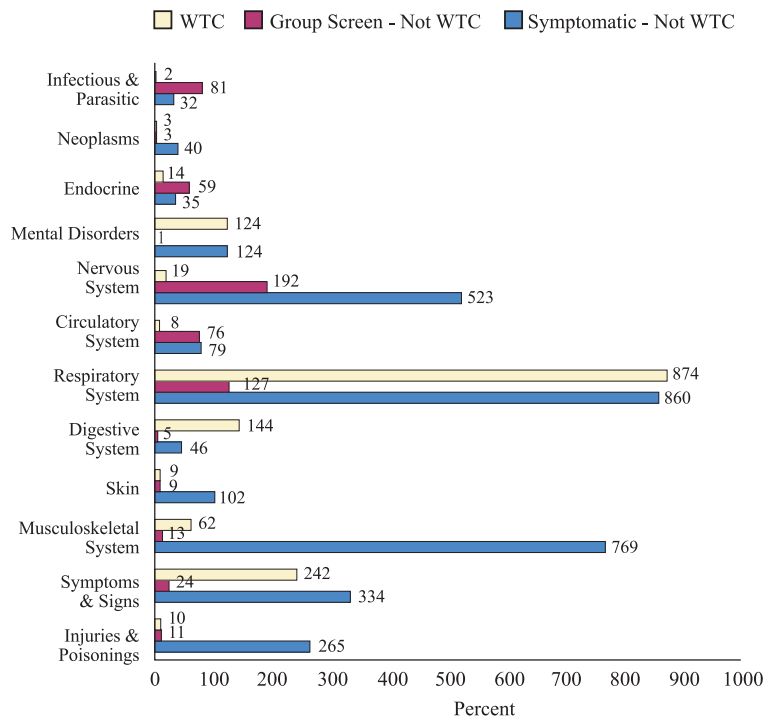


Public Administration
(SIC Codes 91-97)

Figure 5.27. Diagnoses among NYS OHCN patients working in the public administration industry, by World Trade Center (WTC) status and patient type.

Among the 10,114 patients employed in the public administration industry, there were 14,723 diagnoses of which 49% were group screenings (n=7,273), 14% were WTC-related (n=2,032) and 64% were V-codes (n=9,377). Excluding V-Codes, patients working in public administration were diagnosed primarily with diseases of the respiratory system (n=1,861) of which 47% were among patients involved with the WTC rescue and recovery. Among those patients without WTC exposures, 219 (22% of respiratory conditions) were diagnosed with respiratory conditions due to fumes and vapors and 208 (21%) were diagnosed with asthma. Among the WTC exposed patient population, 212 (24%) were diagnosed with chronic pharyngitis, 174 (20%) with asthma, and 159 (18%) with chronic sinusitis. There were another 844 diagnoses of diseases of the musculoskeletal system primarily among symptomatic, non-WTC patients, and 734 diagnoses of diseases of the nervous system including 291 (40%) diagnoses of noise-induced hearing loss.

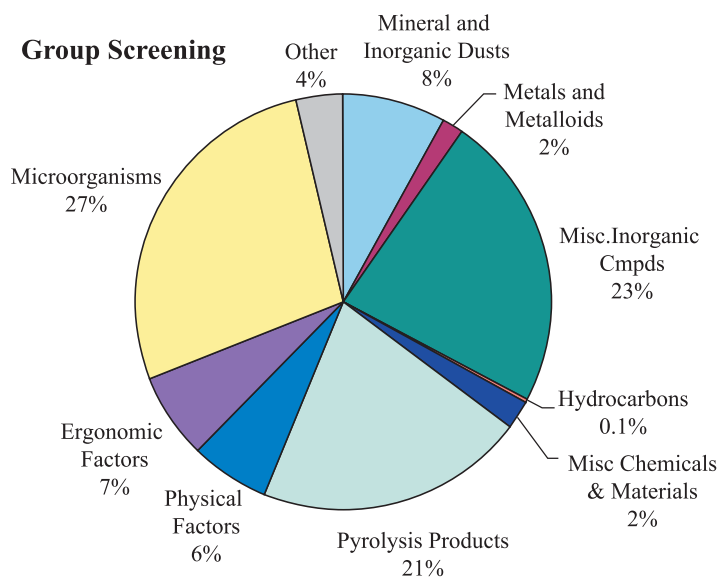
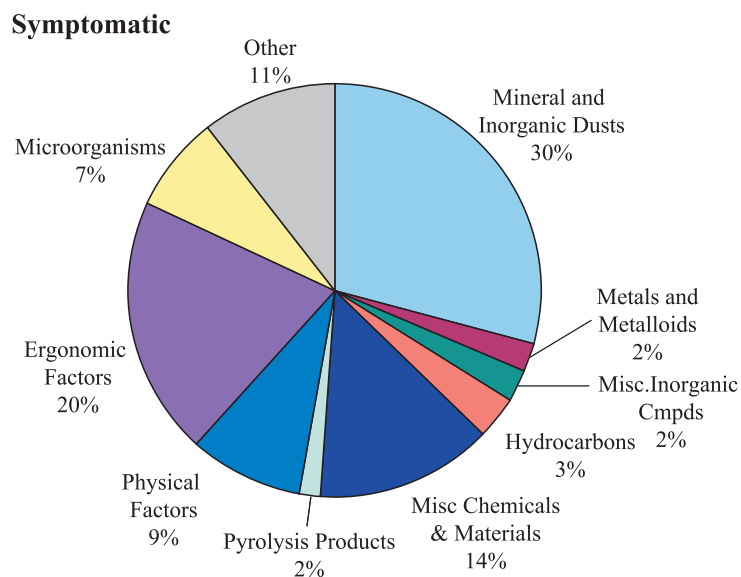
Figure 5.27. Diagnoses¹ among NYS OHCN Patients Working in the Public Administration Industry, by World Trade Center (WTC) Status and Patient Type



¹Excludes V-codes for 2,723 symptomatic and 6,654 group screen patients

Figure 5.28. Exposures among NYS OHCN patients working in the public administration industry, by patient type. Among the patients working in the public administration industry, there were 11,856 exposures identified of which 66% (n=7,832) were group screenings. Thirty percent of the exposures (n=1,791) among the symptomatic patients were to mineral and inorganic dusts of which 996 were to non-specified dusts. These exposures were primarily associated with the WTC (data not shown). Another 20% of the exposures among the symptomatic patients were to ergonomic factors, of which 377 were to repetitive motion and 180 were to stress. Among the group screening patients who worked in the public administration industry, 27% (n=2,135) were screened for exposures to microorganisms. These were primarily non-specified infectious agents. Another 23% were screened for exposures to miscellaneous inorganic compounds, primarily non-specified irritant gases; and 21% were screened for exposures to pyrolysis products, specifically combustion products, fumes and smoke inhalation.

Figure 5.28. Exposures Among NYS OHCN Patients Working in the Public Administration Industry, by Patient Type



Occupations Managerial and Professional Specialty Occupations (Codes 003-199)

Figure 5.29. Number of NYS OHCN patients working in managerial and professional specialty occupations, by patient type. There were 5,243 patients employed in the managerial and professional specialty occupations. There were 2,110 patients employed in executive, administrative and managerial occupations, of which 33% were group screenings; and 219 natural scientists of which 54% were group screenings. Health treating occupations include physicians and dentists, along with nurses, pharmacists and therapists. There were 633 patients in these occupations of which 31% were group screenings. Teachers accounted for 1,473 patients of which 23% were group screenings.

Figure 5.29. Number of NYS OHCN Patients Working in Managerial and Professional Specialty Occupations, by Patient Type

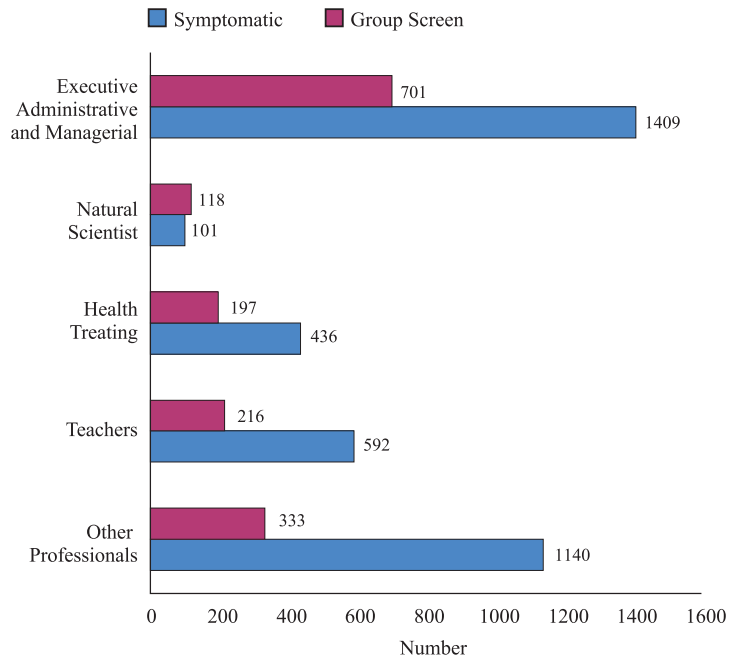
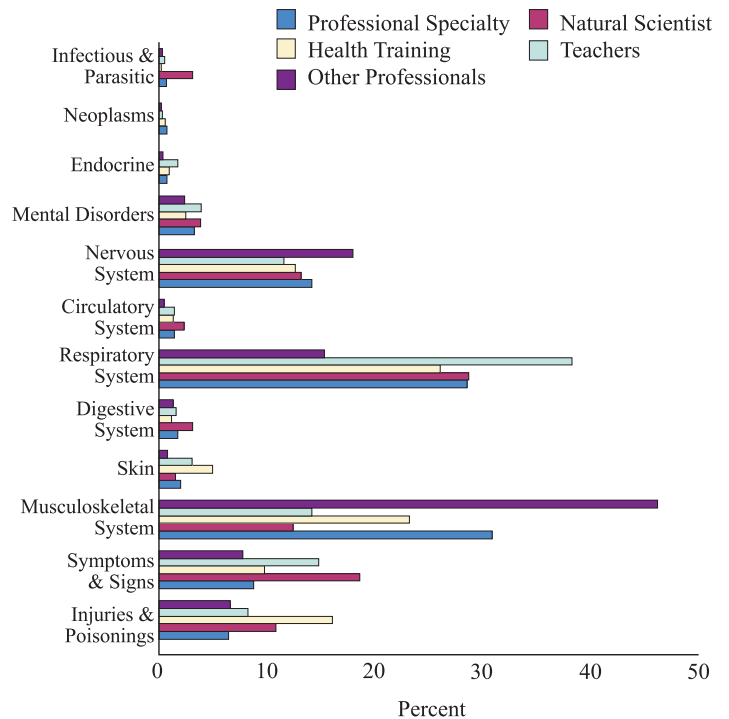


Figure 5.30. Diagnoses among NYS OHCN symptomatic patients working in managerial and professional specialty occupations. There were 9,658 diagnoses of which most were diseases of the musculoskeletal system (23%) primarily peripheral enthesopathies (n=935) and diseases of the respiratory system (19%) primarily asthma (n=419). Among the different occupational groups within this category, those in professional specialties experienced primarily diseases of the musculoskeletal and respiratory system; and natural scientists, health treating professionals and teachers primarily experienced diseases of the respiratory system. Exposures were primarily to mineral and organic dusts, miscellaneous chemicals and materials, and to ergonomic factors (data not shown).

Figure 5.30. Diagnoses¹ Among NYS OHCN Symptomatic Patients Working in Managerial and Professional Specialty Occupations



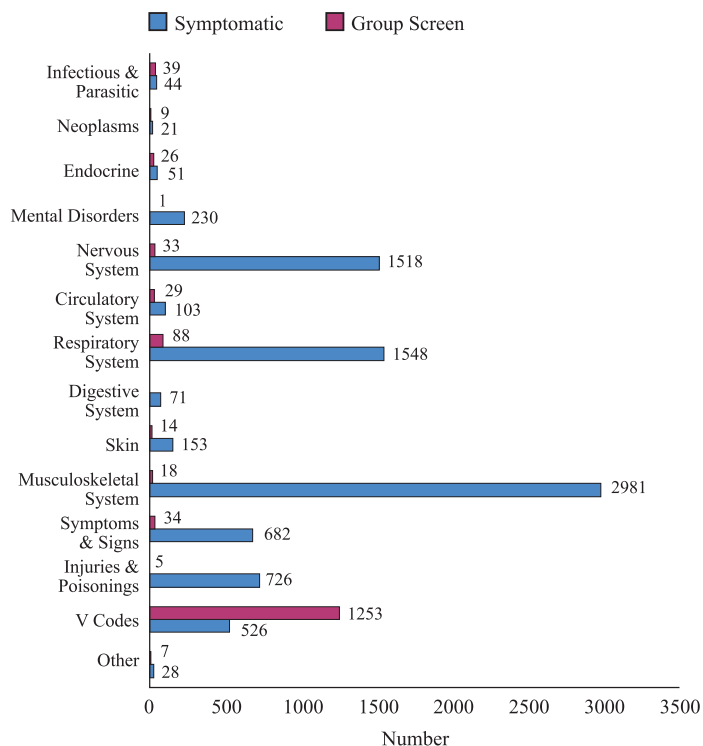
¹Excludes V-codes for 1,329 professional specialty, 170 scientists, 376 health treating, 178 teachers, and 382 other professionals

Technical, Sales and Administrative Support Occupations
(Codes 203-389)

There were 5,139 patients employed in this category of which 1,322 were technicians and related support occupations including health technologists and science technicians; 483 were in sales occupations, and 3,334 were in administrative support occupations including clerical. Of these patients, 24% were group screenings.

Figure 5.31. Diagnoses among NYS OHCN patients working in technical, sales and administrative support occupations, by patient type. There were 10,238 diagnoses among these patients, of which 15% were group screenings. The majority of the patients experienced diseases of the musculoskeletal system (n=2,999), followed by diseases of the respiratory system (n=1,636) and the nervous system (n=1,551). This was similar for all occupational groups within this category. Exposures were primarily to ergonomic factors, mineral and inorganic dusts, microorganisms, and miscellaneous chemicals and materials (data not shown).

Figure 5.31. Diagnoses Among NYS OHCN Patients Working in Technical, Sales and Administrative Support Occupations, by Patient Type



Service Occupations (Codes 403-469)

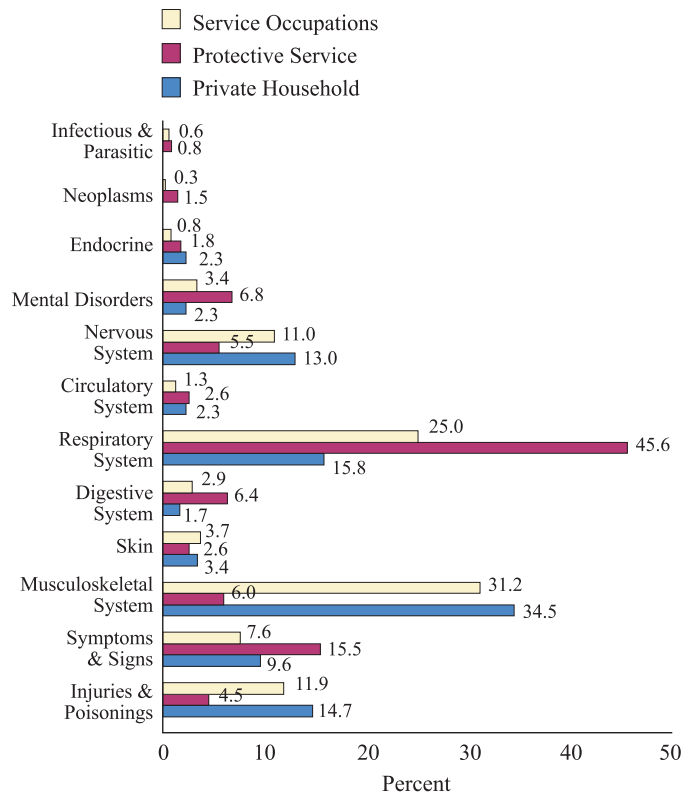
There were 10,199 patients employed in this category of which 230 were in private household occupations, 6,501 were protective service occupations, and 3,468 were service occupations, except protective and household. Of these patients, 65% were group screenings.

Figure 5.32. Diagnoses among NYS OHCN symptomatic patients working in service occupations. Among these patients, there were 5,635 diagnoses and 8,928 V-codes. Patients employed in private household occupations (including cooks, housekeepers and child care workers) and in general service occupations including food preparation, health service, cleaning service and personal service, were primarily diagnosed with musculoskeletal diseases (34% and 31%, respectively). Those in general service occupations experienced primarily disorders of the back (n=330). Patients employed in the protective services were diagnosed primarily with respiratory diseases (45%) primarily asthma (n=143), respiratory conditions due to chemical fumes and vapors (n=68) and pleurisy (n=66). The majority of those employed in protective services were seen as group screening patients (66%). Exposures were primarily mineral and inorganic dusts, ergonomic factors, and miscellaneous chemicals and materials (data not shown).

Farming, Forestry and Fishing Occupations (Codes 473-499)

There were 2,029 patients employed in farming, forestry and fishing occupations. Of these patients, 77% were group screenings. Diagnoses and exposures were very similar to those identified among those in the agriculture, forestry and fishing industry (Figures 5.5 and 5.6).

Figure 5.32. Diagnoses¹ Among NYS OHCN Symptomatic Patients Working in Service Occupations



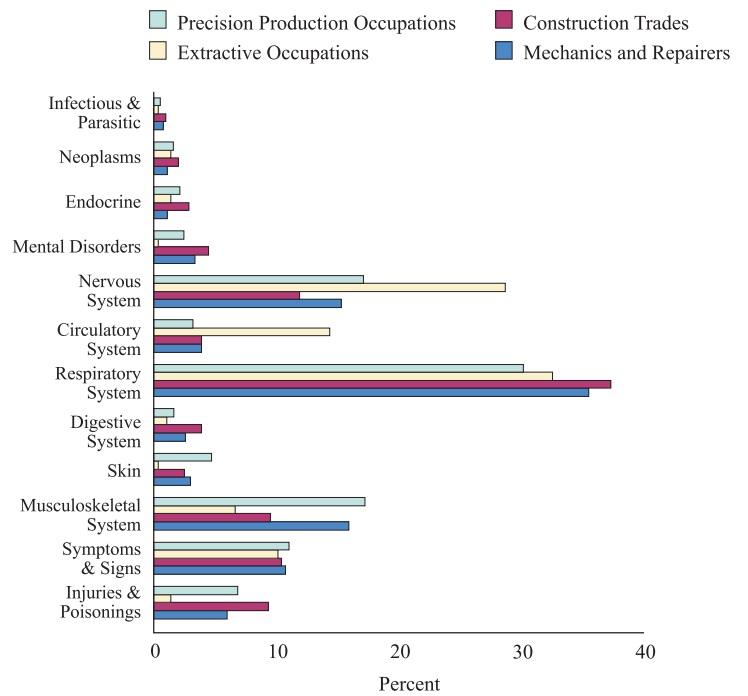
¹Excludes V-codes for 142 private household, 6,896 protective services, and 1,890 service occupations

Precision Production, Craft and Repair Occupations (Codes 503-699)

There were 13,726 patients employed in precision production, craft and repair occupations, of which 59% were group screenings. There were 2,367 mechanics and repairers of which 58% were group screenings; 8,811 patients employed in construction trades of which 59% were group screenings; 142 employed in extractive occupations of which 24% were group screenings; and 2,406 employed in precision production occupations including machinists, sheet metal workers, dressmakers and butchers, of which 61% were group screenings.

Figure 5.33. Diagnoses among NYS OHCN symptomatic patients working in precision production, craft and repair occupations. Among these patients, there were 10,436 diagnoses and 10,406 V-codes. The primary diagnoses were respiratory diseases, although the type of disease varied by the type of occupation. Mechanics and repairers, the construction trades, and precision production occupations were diagnosed mostly with asbestosis (11%, 12%, and 8%, respectively, of all respiratory diseases), pleural plaques (11%, 22%, and 18%, respectively), and asthma (6%, 4% and 5%, respectively). Extractive occupations were diagnosed principally with chronic bronchitis (19% of all respiratory diagnoses). They were also diagnosed with a relatively high percent of nervous system diseases, primarily noise-induced hearing loss. Exposures among these occupations were similar to those in the construction industry (Figure 5.10).

Figure 5.33. Diagnoses¹ Among NYS OHCN Symptomatic Patients Working in Precision Production, Craft and Repair Occupations



¹Excludes V-codes for 1,581 mechanics, 7,629 construction, 29 extractive occupations, 1,167 precision production occupations

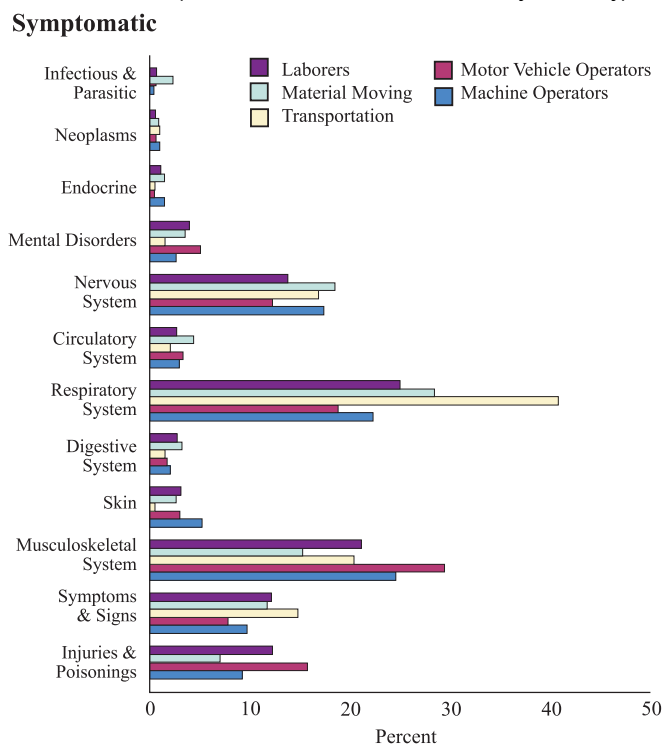
Operators, Fabricators and Laborers (Codes 703-889)

There were 9,227 patients employed as operators, fabricators and laborers of which 49% were group screening patients. There were 3,771 machine operators, assemblers and inspectors of which 47% were group screenings; 1,254 motor vehicle operators of which 18% were group screenings; 665 other transportation occupations including rail and water transportation and material moving equipment operators of which 84% were group screenings; and 2,761 handlers, equipment cleaners, helpers and laborers of which 52% were group screenings.

Figure 5.34. Diagnoses among NYS OHCN patients working as operators, fabricators and laborers, by patient type. Excluding V-codes, patients in these occupations experienced primarily respiratory diseases, diseases of the musculoskeletal system and of the nervous system.

There were 4,777 diagnoses among machine operators of which 14% were group screenings. Twenty-three percent of the diseases experienced by machine operators were respiratory with 246 diagnoses of asthma and 182 diagnoses of respiratory conditions due to chemical fumes and vapors. Another 22% of the diseases experienced by machine operators were of the musculoskeletal system including 312 diagnoses of peripheral enthesopathies, 146 diagnoses of other disorders of the synovium, tendon and bursa, 120 unspecified disorders of the back, and 106 other disorders of soft tissues. Nineteen percent of the diseases experienced by machine operators were of the nervous system with 359 diagnoses of carpal tunnel syndrome and 316 diagnoses of noise-induced hearing loss. The primary exposure among machine operators was to ergonomic factors (n=1,003), followed by microorganisms (n=997), hydrocarbons (n=523), mineral and inorganic dusts (n=206), and physical factors (n=497) (data not shown).

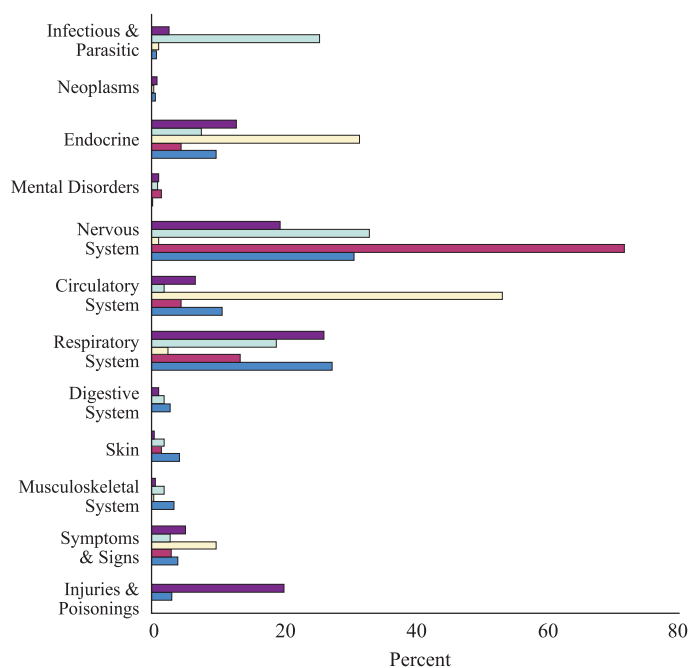
Figure 5.34. Diagnoses^{1,2} Among NYS OHCN Patients Working as Operators, Fabricators and Laborers, by Patient Type




¹Excludes V-codes for 407 machine operators, 783 motor vehicle operators, 21 transportation operators, 128 material moving operators, 776 laborers

²Excludes V-codes for 1,959 machine operators, 178 motor vehicle operators, 396 transportation operators, 476 material moving operators, 1,277 laborers

Group Screening





Excluding V-codes, there were 2,617 diagnoses among motor vehicle operators of which 10% were group screenings. Motor vehicle operators experienced many of the same conditions as machine operators with 27% of the diagnoses involving the musculoskeletal system, and 18% of the respiratory system and of the nervous system. The specific disease diagnoses were very similar to the machine operators. Exposures to motor vehicle operators were primarily to physical factors (n=176), ergonomic factors (n=172) and mineral and inorganic dusts (n=121) (data not shown).

There were 482 diagnoses among transportation workers, excluding V-codes, of which 59% were group screenings. Transportation workers primarily experienced diseases of the circulatory system with 86 diagnoses of hypertension and 28 coronary atherosclerosis. Another 19% of the diagnoses among transportation workers were endocrine diseases including 68 diagnoses of hypercholesterolemia and 20 diagnoses of diabetes. These were exclusively among group screening patients. Eighteen percent of the diagnoses among transportation workers were of the respiratory system, although there was not any particular disease diagnosed among this group of workers. Transportation workers were almost exclusively exposed to miscellaneous inorganic chemicals (n=452).

There were 447 diagnoses among material moving occupations, excluding V-codes, of which 24% were group screenings. Over a quarter of these patients (26%) were diagnosed with respiratory diseases which were primarily asthma (n=19), asbestosis (n=15) or pleurisy (n=17). Twenty-two percent of these patients were diagnosed with diseases of the nervous system almost all being noise-induced hearing loss. Exposures to those in material moving occupations were to microorganisms (n=357), mineral and inorganic dusts (n=166), and physical factors (n=144) (data not shown).

Excluding V-codes, there were 1,822 diagnoses among handlers, equipment cleaners and laborers of which 27% were group screenings. Twenty-five percent of these patients were diagnosed with respiratory diseases primarily asbestosis (n=65) and pleurisy (n=68). Sixteen percent were diagnosed with diseases of the musculoskeletal system and 15% were diagnosed with diseases of the nervous system, primarily noise-induced hearing loss. Patients in these occupations experienced exposures to mineral and inorganic dusts (n=947), metals and metalloids (n=398), physical factors (n=348) and ergonomic factors (n=316).

References:

- ¹ Standard Industrial Classification Manual. 1987. Executive Office of the President. Office of Management and Budget.
- ² U.S. Office of Federal Statistical Policy and Standards. 1980. Standard Occupational Classification Manual, 1980. Washington, DC: U.S. Government Printing Office.