Healthy Workplaces

In Madison County

Madison County Department of Health

People are the principal asset of every workplace.

Overarching Goal Statement

Healthy Environments

Create and sustain social and physical environments that are accessible; that support health, safety, and quality of life; and that promote health behaviors for individuals at each stage of life.

Strategic Goal Statement

Healthy Workplaces

Promote and protect the health and safety of people who work by preventing workplace-related fatalities, illnesses, injuries, and personal health risks.

Objective 1

Prevent work-related deaths, injuries, and illnesses

Objective 2

Improve adoption of comprehensive workplace programs, policies, and practices that protect employees from work-related risks and promote safe and healthful lifestyles for workers and their families.

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Healthy Workplaces

Madison County, New York

Introduction

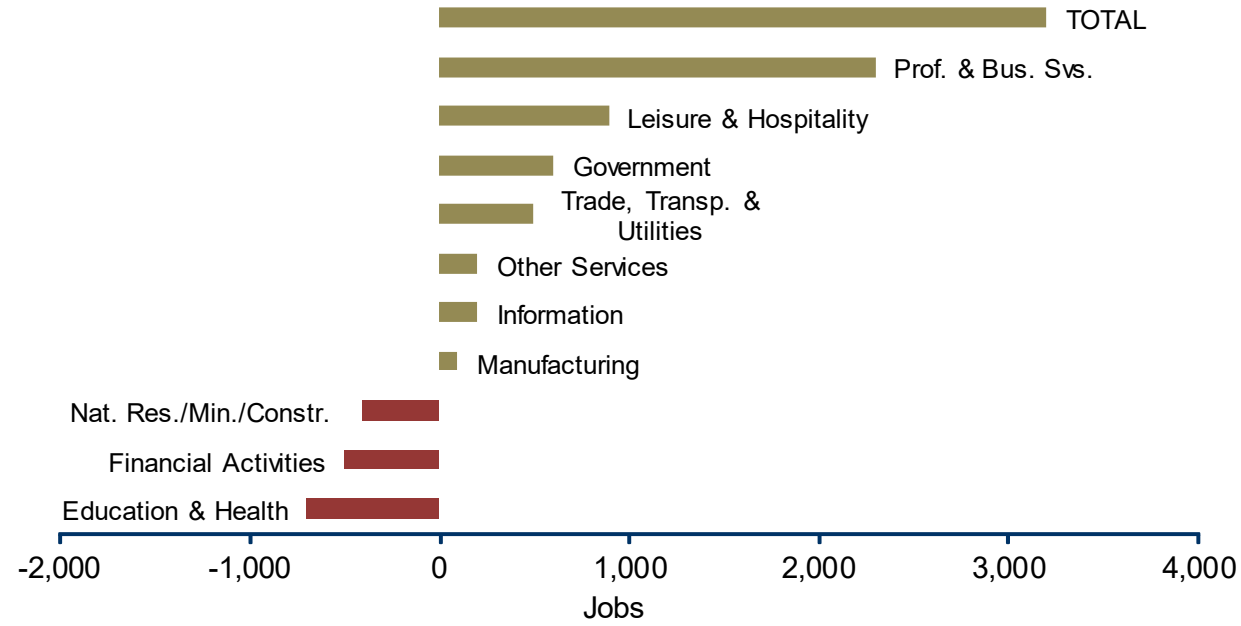
Approximately 33,023 people (46% of the population) in Madison County were employed in 2015[1]. These workers spend a quarter of their lifetime and up to half of their waking lives at work or commuting. They also continue to suffer work-related deaths, injuries, and illnesses despite improvements in workplace safety and health over the last several decades. Workers are also substantially affected by illnesses, such as heart disease and respiratory disease, from personal health risk behaviors. The workplace, therefore, provides a unique forum for public health action.

Background

Addressing safety and health in the workplace poses numerous challenges. The workforce is becoming increasingly diverse, reflecting the changing social and demographic characteristics of the country. These changes are accompanied by new safety and health issues. Moreover, workplaces are also rapidly evolving. Jobs in the Syracuse Metropolitan Service Area (MSA), as well as across the U.S., continue to shift from manufacturing to services producing industries (figure 1).[2,3] Although Madison County is part of the Syracuse MSA economy, County job growth is still occurring within the more traditional industries such as agriculture, construction, transportation and warehousing, and manufacturing (table 1).[4]

Major changes are also occurring in the way work is organized. Longer hours, compressed workweeks, shift work, reduced job security, corporate restructuring, mergers and acquisitions, downsizing, and part-time and temporary work are realities of today's workplace and are increasingly affecting the health and lives of workers and their families. In addition, new chemicals, materials, processes, and equipment are developed and marketed at an ever-

Figure 1: Syracuse MSA
Jobs gained or lost March 2017 vs. March 2016



Source: NYSDOL, Job Trends: Central New York.[3] MSA = Metropolitan Service Area. Syracuse MSA includes Onondaga, Madison, and Oswego counties

accelerating rate.

From a societal perspective, certain external forces can impact the way we work including: the state of the economy, globalization and international competition, introduction of national administrative bodies and legislation (such as OSHA, Americans with Disabilities Act (ADA), Family and Medical Leave Act (FMLA), health-care reform, deregulation, and declining rates of unionization.

Such forces shape decisions made by employers, regardless of their individual dispositions toward the health of their workers. This is to say that interventions to improve worker health and safety—whether undertaken voluntarily by employers or imposed upon them by regulatory standards—are situated in a political and economic context that must be considered when planning for interventions in worksites.

An essential and diverse group of stakeholders are directly involved in workplace safety and health. Employers, workers, labor unions, federal and state agencies, academic researchers, and professional organizations all have a stake in working conditions and how they affect the safety, health, and productivity of workers. Partner involvement is therefore critical in preventing work-related disease, injury, and death.

Current State of Worker Safety & Health

Since the passage of the Occupational Safety and Health Act (OSH Act) in 1970, substantial progress has been made in improving worker protection. Much of this progress has been based on actions guided by occupational safety and health research. Fatal work injuries and the rate of disabling injuries have declined substantially, specific health hazards

Table 1: Average Quarterly Census of Employment
Madison County—2010[a] vs. 2016[b]

NAICS[c]	Industry Title (NAICS)	Quarterly Employ. 2010	Quarterly Employ. 2016	Employment % Change
00	Total All Industries[d]	21,114	20,820	(1.4)
01	Total All Private	16,281	17,321	6.4
11	Agriculture Forestry Fishing and Hunting	187	341	82.4
22	Utilities	25	21	(16.0)
23	Construction	816	870	6.6
236	Construction of Buildings	245	208	(15.1)
237	Heavy and Civil Engineering Construction	68	124	82.4
238	Specialty Trade Contractors	503	539	7.2
31	Manufacturing	2,333	2,811	20.5
311	Food Manufacturing	256	336	31.3
323	Printing and Related Support Activities	15	11	(26.7)
326	Plastics & Rubber Products Manufacturing	285	365	28.1
327	Nonmetallic Mineral Product Mfg	86	22	(74.4)
331	Primary Metal Manufacturing	512	458	(10.5)
332	Fabricated Metal Product Manufacturing	262	359	37.0
334	Computer and Electronic Product Mfg	247	292	18.2
42	Wholesale Trade	545	512	(6.1)
44	Retail Trade	2,562	2,613	2.0
48	Transportation and Warehousing	159	238	49.7
51	Information	180	132	(26.7)
52	Finance and Insurance	566	355	(37.3)
53	Real Estate and Rental and Leasing	156	152	(2.6)
54	Professional and Technical Services	613	526	(14.2)
55	Management of Companies and Enterprises	146	133	(8.9)
56	Administrative and Waste Services	334	395	18.3
61	Educational Services	1,683	1,842	9.4
62	Health Care and Social Assistance	2,949	2,916	(1.1)
71	Arts Entertainment and Recreation	363	424	16.8
72	Accommodation and Food Services	1,929	2,181	13.1
81	Other Services Ex. Public Admin	671	723	7.7
95	Total All Government	4,833	3,499	(27.6)
99	Unclassified	46	113	145.7

[a] = 2nd Qrtr of 2010; [b] = 3rd Qrtr of 2016 [c] North American Industry Classification System . [d]Does not includes self employed unless they hired workers that would be covered under the Unemployment Insurance system

Source: Mark Barbano NYS Dept. of Labor, Research & Statistics Division Personal communication. June 8, 2017.[4]

Madison County experiences about one (1) work-related fatality each year

The Syracuse MSA, which includes Madison County recorded nine (9) work-related fatalities in 2015[2]

Madison County has a slightly higher fatal work-related injury rate than NYS .

have been controlled, and some occupational diseases have been nearly eliminated (e.g. brown lung disease from cotton exposure).

The ability to survey and assess the state of occupational safety and health has also improved over time. However, occupational safety and health surveillance data remain fragmented and have substantial gaps. Data are collected for different purposes by different organizations using different definitions. Each surveillance system has limitations, particularly those that attempt to quantify occupational illness. Thus, it is difficult to characterize the overall health of working America and Madison County specifically.

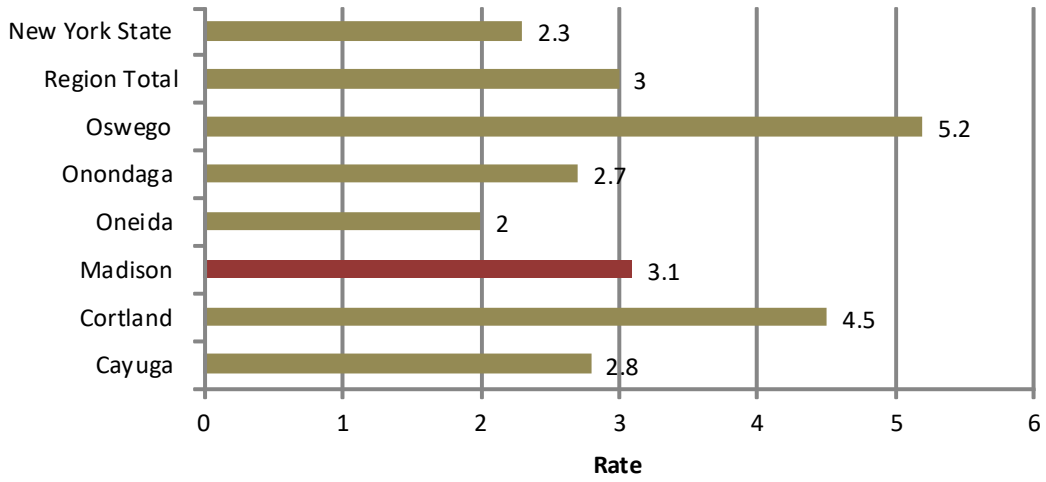
Even with the fragmented surveillance systems currently in place, data indicate that workplace deaths, injuries, and illnesses continue to have a profound impact on the health and safety of our workers. On average, nearly 13 workers in the US die each day from injuries sustained at work, and one (1) every thirty-seven (37) hours in NYS.[2] Madison County experiences about one (1) work-related fatality each year, resulting in a slightly higher fatal work-related injury rate than NYS (figure 2).[5]

In 2015 alone: More than 4,800 work-related deaths occurred in the US, the highest number of deaths since 2008. NYS recorded 236 work related deaths in 2015. The most deaths occurred in construction, followed by transportation and agriculture in the both the US and NYS.[2] As figure 3 shows, occupational fatality rates in the US and NYS were highest for agriculture, followed by mining and transportation.

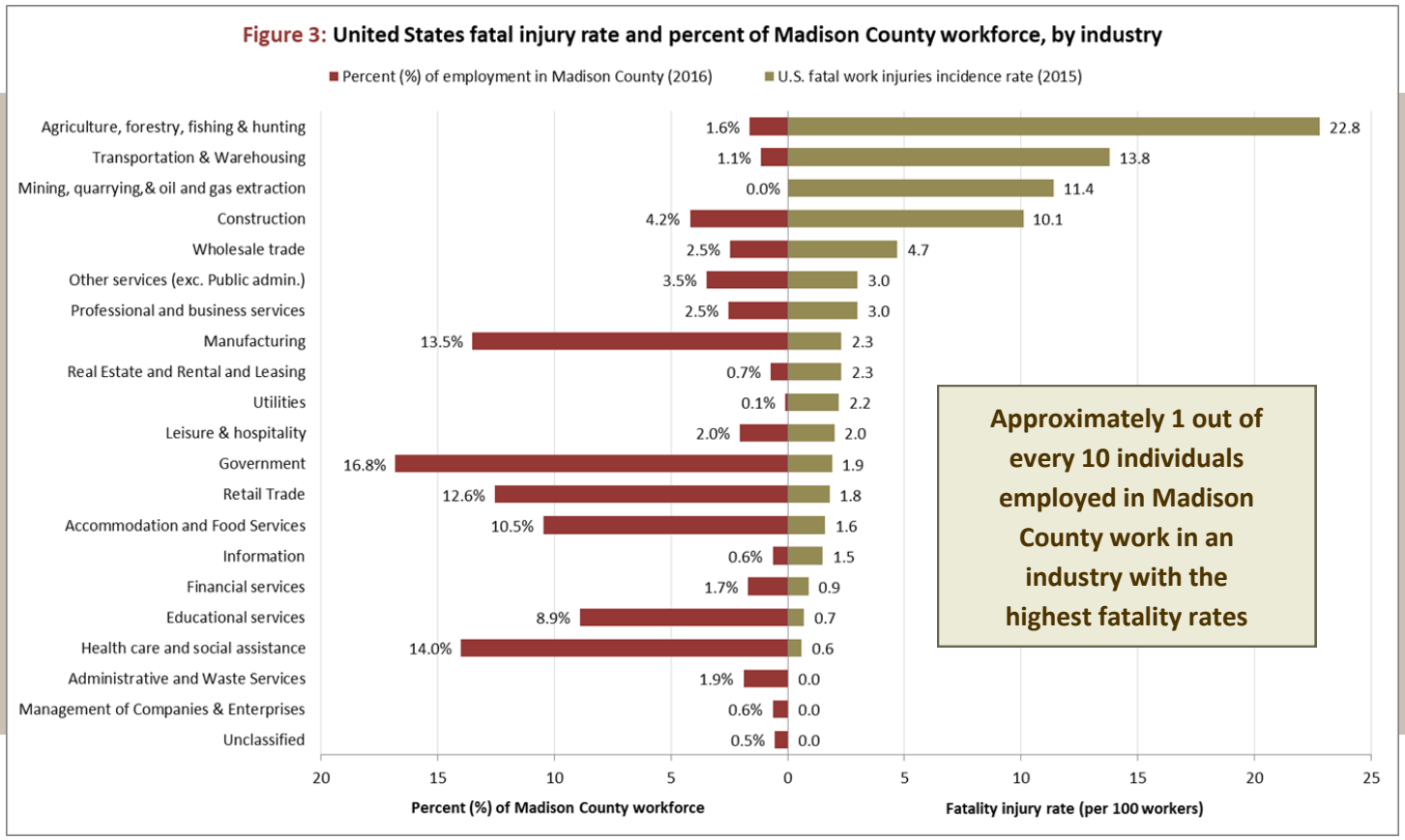
In 2015, approximately 2.9 million nonfatal workplace injuries and illnesses were reported by US private industry employers, which occurred at a rate of 3.0 cases per 100 equivalent full-time workers; for NYS the rate was 2.4 cases per 100 workers. Agriculture, government and transportation, experienced the highest rates in the US and NYS (figure 4).[2]

Madison County's work-related hospitalization rate from 2012 to 2014 was 210.4

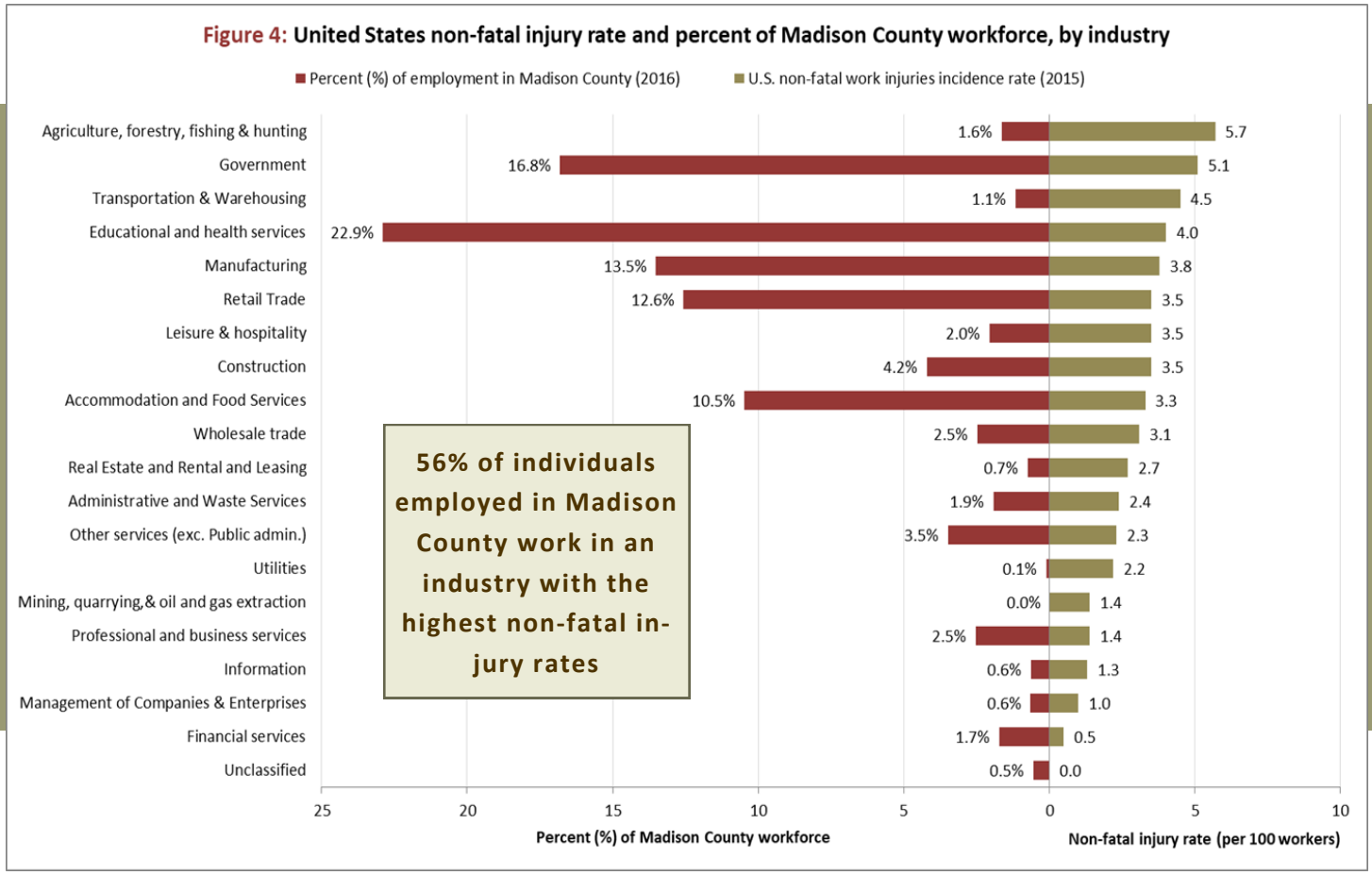
Figure 2: Fatal work-related injuries per 100,000 employed persons aged 16 yrs and older (CNY) - 2012-2014



Source: 2012-2014 NYSDOH Bureau of Occupational Health and Injury Prevention Data as of July, 2016.



Figures 3 & 4: Source; U.S. Labor Statistics, U.S. Department of Labor. Source: New York State Department of Labor's Quarterly Census of Employment and Wages (QCEW).



per 100,000 employed persons; 1.4 times higher than New York States (figure 5).[6]

It has been estimated that direct and indirect costs to U.S. businesses (e.g., worker's compensation, productivity) and society (e.g., Medicaid and Medicare) related to these burdens was about $250 billion in 2007.[7] These costs did not include such things as employer costs for labor turnover, retraining and hiring, the impact of "presenteeism", or diseases of the nervous system or behavioral health issues.

> Over half of the U.S. and NYS industry injury and illness cases reported in 2015 involved days away from work, job transfer, or restriction (DART).[2]

In the context of the continuing health and economic burdens, each industry sector has unique occupational safety and health risks depending on work setting, location, work processes, and workforce characteristics.

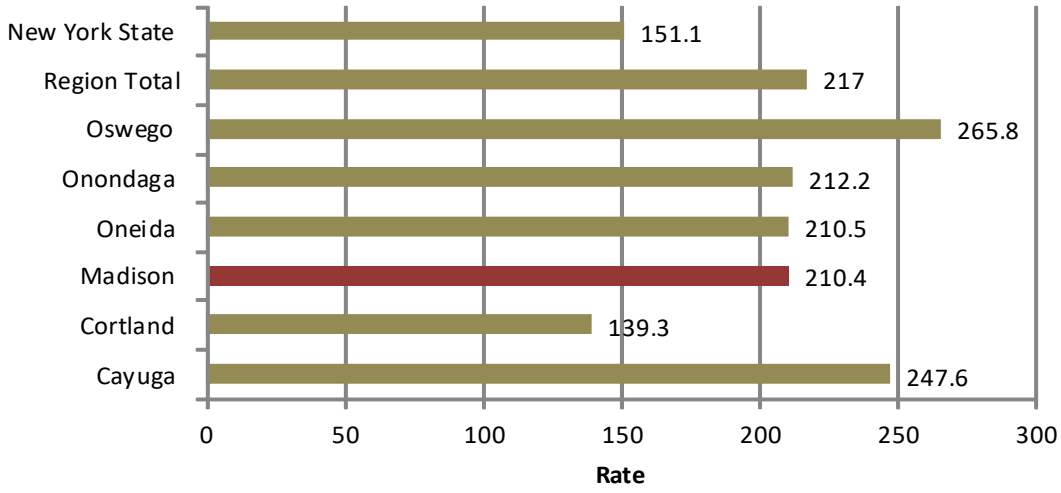
Two of the sectors with the highest rates and numbers of fatalities and injuries are agriculture and construction. These two industries also represent the two leading employment growth areas in Madison County over the last 5 years (table 1), and a more detailed illustration of their risks is highlighted on page 10 of this report.

Workforce Health Disparities

Health disparities exist across many working populations. Although comprehensive surveillance systems do not exist to track these health disparities, and inadequate information has been collected on these priority working populations in the past, it is known that disparities exist in the rates of occupational illnesses and injuries and in exposure to occupational hazards.[8,9]

Workers with specific biologic, social, and/or economic characteristics – such as female workers, younger and older workers, workers with disabilities, immigrant workers, and migrant and agricultural workers—are more likely to have increased

Figure 5: Work-related hospitalizations per 100,000 employed persons aged 16 yrs and older. 2012-2014



Source: NYSDOH. 2012-2014 SPARCS Data as of May, 2016[6]

AGRICULTURE

In 2015, the agriculture sector experienced 11.8% of the total number of occupational fatalities for the US and 9% in NYS, yet this sector employs only 1.4% of the workforce[10]. Farm tractors were the leading source of fatal occupational injuries in agriculture , accounting for 401 deaths nationwide, in 2015. A major cause of these fatalities was tractor overturns.[11] A 2009 farm survey by the USDA reported that animals were the primary source in 21% of all work-related injuries to adults on farms. They identified floors, walkways, and ground surfaces in 18% of all work-related injuries to adults on farms. Results from the agricultural safety survey also show an increase in the average age for adults injured on the farm. In 2001, the average age for adults injured while working or living on the farm was 47.8 years. By 2009, the average age increased to 52.2 years.[12] Agriculture workers are often exposed to an extensive mixture of pesticides.[13] The health impacts of these mixtures are poorly understood, and human susceptibility to pesticide toxicity is likely to be highly variable. Heat stress is also a significant health risk, especially for high-risk occupations such as agricultural field workers.[14]

CONSTRUCTION

In 2016, 10.3 million U.S. workers were employed in construction, a 16% increase after construction employment bottomed out in 2012.[15] Small businesses with fewer than 20 employees account for 90.1% of all construction establishments, and 36.8% of all construction employees work in small businesses.[16] Falls remain the leading cause of work-related deaths in construction, accounting for about one-third of the total number of fatalities in this industry.[17] Between 2011 and 2015, the number of fall fatalities in construction increased by 36.4%.[17] There were more fatal injuries in construction than any other industry in the United States, accounting for nearly 20% of the nation's work-related deaths in 2014.[18] Approximately 44% of all deaths on construction sites occur in companies with ten or fewer employees .[16] In addition to fatal injuries, workers in these industries are at risk of injury or illness due to 'contact with objects', falls to a lower or same level, overexertion, and excessive noise.

risks of work-related diseases and injuries.

Job insecurity and the organization of work (e.g. shift work) can also contribute to these disparities.[8,9,19] Numerous public health studies document the growing disparities in rates of health outcomes such as cardiovascular disease, cancer, and mental health as well as in the access to and quality of care. The disparities in the burden of disease, disability, and death is experienced by certain population groups, including low-income workers and minorities.

Low-wage workers

Workers in low-wage jobs may be differentially affected by working conditions, the nature of employment, access to quality medical care, and disability or workers' compensation.[20, 21] In 2001, blue-collar workers had both a higher proportion of injuries (28.6% vs. 11.8%) and lower mean hourly earnings ($13.85 vs $23.72) than white collar workers.[22] Lower incomes are associated with reduced access to care.[20] The percentage of working U.S. adults (18 to 64) who had no health coverage decreased from 22.3% in 2009,[23] to 12.9% in 2016.[24]

Individuals with lower incomes are almost five times more likely to report being in fair or poor health as adults with higher family incomes, and are more than three times more likely to have activity limitations due to chronic illness.[25] Low-income American adults also have higher rates of heart disease, diabetes, stroke, and other chronic disorders than wealthier Americans.[26]

Older workers

The population is projected to age over the coming decades. The working-age population is projected to decrease from 62 percent to 57 percent of the total population between 2014 and 2060. in contrast, the percentage of the population that is aged 65 and over is expected to grow from 15 percent to 24 percent over this same time period.[27]

Aging affects a variety of health conditions and outcomes, including both chronic health conditions and the likelihood of on-the-job injury. For example, about 80%

of adults aged 65 years and older have at least one chronic health condition and 50% have at least two.[28]

Moreover, older workers might be at elevated risk for occupational injuries and illnesses given the changes that accompany aging. In 2015, workers 65 years and older had the highest rates of fatal occupational injuries.[2]

The greatest number of fatal work injuries involved workers in the 45 to 54 and 55 to 64 age groups. Workers age 65 and over had the highest fatal injury rate of all workers (9.4 per 100,000 full-time equivalent workers compared to the all-worker rate of 3.4).[2]

Research conducted in workplace settings suggests a complex relationship between aging and worker health.[29] For some outcomes, older workers are indeed at a disadvantage. For example, older workers have been found to take longer to return to work following an injury, illness, or disability, reflecting a decline in recuperative ability of the body that occurs with age.[30, 31]

Older workers also show increased susceptibility to certain types of workplace practices, such as shift work. For other outcomes, the relationship with age is either mixed or nonexistent. For example, older workers tend to experience fewer nonfatal injuries than younger workers.[2] However, when an older worker is injured, it is more likely to be severe or fatal than when a younger worker is injured.[32, 33]

Hispanic/Foreign-Born/Migrant Workers

As the US labor force grows, the number and proportion of Hispanic workers are increasing. The Hispanic population is projected to be the third fastest growing, after mixed race and Asian populations, and is projected to increase by 115 percent between 2014 and 2060.[27]

Limited data are available on occupational injury and disease risks among Hispanic workers. Hispanic men and women are more likely than non-Hispanic white workers to be employed in riskier blue-collar and service occupations.[35, 36] Between 2005 and 2015, fatal work injury rates for Hispanic workers have been consistently higher than the overall national fatality rate.[2] Fatal work injuries involving Hispanic or Latino workers increased in 2015 to its highest level since 2007.[2] Around two-thirds of fatally-injured Hispanic or Latino workers in 2015 were born outside of the United States.[2]

Table 2. Farming in Madison County[34]

- Average age of farmer in Madison County was 55.5 years as of 2014.
- In 2012, 34% of the NY state's farms were operated by those 65 and older.

Madison County—2015

Farm Employment	1,297	Farm Operations*
Farm Proprietors	802	838
% Employment	4.2%	1.4% (U.S.)
% Proprietors	2.6%	1.05 (U.S.)

* Total # of farms operated in Madison County

This disparity is due, in part, to the disproportionate number of Hispanic immigrants working in high-risk industries such as construction, agriculture, and transportation.[37] Language and literacy may also play a role, especially in compromising worker safety and health training. The proportion of workers who are immigrants is likely to increase in the coming decades, as has already been observed. Immigration is expected to continue to account for a sizable part of population growth and will further diversify the labor force.

Amish

Over the past twenty-five (25) years, the Amish population has increased by one-hundred and forty percent (140%) and established new communities in ten states.[38] While Ohio, Pennsylvania, and Indiana claim about two-thirds of the Amish population, New York State represents the state with the fourth largest Amish population in 2016 (18,360)[38] Since 1992, the Amish population in New York State has increased by three-hundred and fifty -three percent (353%).

Old Order Anabaptists, such as the Amish, hold a unique place in American culture and their communities and way of life are intimately linked to a traditional agricultural lifestyle. Not only is farming a method of economic subsistence, it is also a primary means of preserving their culture.[39] Additionally, it appears that their religious beliefs influence how they view agriculture, how they work, and how they approach risk taking.[40,41,42,43]

While farming remains a traditional occupation among the Amish, more communities are engaging in non-farm work such as producing wood products (furniture, small barns, gazebos), residential and commercial construction, and manufacturing.[44] Farming, construction, and manufacturing are among the riskiest industries for occupational injuries and illnesses. However, limited data are available about such occupational risks among the

Amish population. What limited data that are available, focus on farm-related injuries, especially among children.[45,46,47] Contrary to non-Amish populations, work related agricultural injuries occur predominantly among children fifteen years old and under (63%), with the average age of all fatality victims at 14.6 years and the median age of 11 years.[45] Being run over, direct animal contact, and falls represented the top three sources of injury.[45] As such, addressing occupational injuries and illnesses among the Amish population poses some unique challenges.

Madison County Health Indicators[49]

7.2%

Poor Mental Health
(NYS = 11.1%)

65.4%

Colon Cancer Screening
(NYS = 69.3%)

32.9%

Adult Obesity
(NYS = 24.6%)

17.1%

Adult Smoking
(NYS = 15.9%)

Personal Health Risks

Data show that in addition to sustaining work-related injuries and illnesses, people who work are also significantly affected by illness from personal health risk behaviors, and that the prevalence of chronic conditions and risk behaviors varies by occupation. These modifiable and preventable risk factors cause health problems for working adults that compromise their quality of life and functional independence, including their ability to work, and can contribute to premature death. Health risk behaviors are common and have a substantial health and economic impact on society in general, and in the workplace specifically.

Tobacco Use

Cigarette smoking is the leading cause of preventable disease and death in the U.S.[48] Tobacco use is a major contributor to cancer, heart disease, stroke, and chronic obstructive pulmonary disease, and 17.1% of persons in Madison County 18 years of age and older currently smoke.[49] Each year, an estimated 438,000 people in the US die prematurely from smoking or exposure to secondhand smoke.[50] Compared to nonsmokers, men who smoke are about 23 times more likely to develop lung cancer, and women who smoke are 12 times more likely to develop lung cancer.[50]

For the years 2009 to 2012, the economic costs due to smoking is estimated to be at least $300 billion a year. This cost includes nearly $170 billion in direct medical care for adults and more than $156 billion for lost productivity from premature death.[50]

Compared to nonsmoking employees, every staff member who lights up costs their employer nearly $6,000 more each year due to more time off, smoking breaks and added health care costs.[51]

The prevalence of current smoking is higher among service, transportation, and production, and "blue collar" occupations.[52,53,54] Tobacco use combined with occupational exposures could create synergistic effects that place workers at even greater risks for negative health outcomes. Workers in specific industries (e.g., asbestos, extraction and construction), who smoke, are at greater risk for lung cancer than non-smoking workers, [55,56] and other occupational injuries such as hearing loss.[57, 58, 59]

Table 3. Leading Causes of Death in Madison County - 2014 (per 100,000)

Cancer	158
Heart Disease	152
Chronic Lower Respiratory Disease	54
Unintentional Injury	40
Stroke	34

Source: NYS Department of Health, Vital Statistics 2014

Obesity

Obesity continues to be an issue in the US, as well as in Madison County, where nearly two thirds of adults 18 years of age and older are obese or overweight.[49] The majority of overweight or obese adults suffer from diabetes, high blood pressure, coronary artery disease, high cholesterol, osteoarthritis, or a combination of these conditions.

An insidious and detrimental relationship exists between being obese and occupational health

risks. Adults in certain occupations are more likely to be obese (e.g., health care, transportation/warehousing, public administration).[60, 61] In particular, the risk of obesity may increase in high-demand, low-control work environments, and for those who work long hours.[62] The pressure and demands of work may affect a worker's eating habits and activity patterns, which may lead to overweight and obesity.[63,64]

Obesity may affect both work opportunity and performance as well as modify the relationship between workplace exposure and health outcome. Obese/overweight workers demonstrate higher rates of absenteeism, presenteeism, higher health care costs, and incur greater productivity losses than non-obese/overweight workers.[60, 62, 65]

Furthermore, obesity may represent an additional risk factor for particular injuries and/or diseases that result from work place exposures (e.g, musculoskeletal disorders, cardio vascular disease, immune system response, asthma, and and cancer).[62] A study that looked at the role of obesity in the prevalence of injury in the workplace concluded that overweight and obese workers were 26% and 45%, respectively, more likely to experience injuries than normal weight workers.[60]

Obesity presents a significant financial impact on the workplace, such as with increased worker's compensation costs.[66] It has been estimated that medical and absenteeism expenditures for obese full-time employees are in the range of nearly $400 to more than $2,000 per person per year, compared with normal-weight workers.[67] Morbidly obese employees can cost more than twice that of normal weight workers.[68]

Each year, obesity related illness account for an estimated 39 million lost workdays, 239 million restricted activity days, and 62.7 million doctor office visits.[69]

Substance Use

Most people who misuse alcohol, prescription drugs, or illegal drugs are employed.[70] Alcohol and drug use among employees and their family members can be an expensive problem for business and industry, with issues ranging from lost productivity, absenteeism, injuries, fatalities, theft and low employee morale, to an increase in health care, legal liabilities, workers' compensation costs and affecting the bottom line.[70, 71]

In addition to the impact of drug use on work performance, productivity and business costs, new issues arise regarding workplace security, public confidence, and unlawful activities of organization members, and their related costs.[72]

Alcohol and other drugs affect impulse control, motor

Of adult binge drinkers, 79.3% are employed either full or part time. Of adult heavy drinkers, 76.1% are employed.[70]

68.9% of the estimated 22.4 million illicit drug users, ages 18 or older, are employed full or part time.[70]

Madison County Health Indicators[49]

16%

Adult Binge Drink
(NYS = 17.7%)

12.9%

Death Rate Drug Poisoning
(NYS = 11.4 per 100,000)

6.2%

Death Rate Prescription Opioid Overdose
(NYS = 4.2 per 100,000)

25.7%

Alcohol Impaired Driving Deaths
(NYS = 23.4%)

function, reflexes, judgement, and decision making.[73] There is evidence of an association between substance use and workplace accidents.[74] This association is stronger for males, younger workers, and in certain industries such as manufacturing and construction.

Approximately 9% of employees report engaging in illicit drug use, in the past month,[69] with about 3% of employed adults indicating that they have used an illicit drug before reporting to work, and/or are at work under the influence of a drug.[75] Employees who abuse alcohol or drugs are: three and a half times more likely to be involved in a workplace accident than other workers,[69] twice as likely to request time off or early dismissal, and two and a half times more likely to have absences of eight days or more.[76] Analyses of workplace fatalities showed that at least 11% of the victims had been drinking.[77]

Use of a substance varies by industry type; higher rates of alcoholism are found among construction and mining industries, while the highest rates of illicit drug use tends to be in the accommodations and food services industry (figures 6 and 7).[78]

Although it appears that substance use substantially contributes to occupational injuries, researchers found that the proportion of occupational injuries caused by substance use is "relatively small." "Instead, there is mounting evidence that harmful substance use is one of a constellation of behaviors exhibited by certain individuals who may avoid work-related safety precautions and take greater work-related risks." [74]

In light of this however, the growing trend in prescription drug abuse and overdoses should cause concern for employers. The CDC reports that opioid overdose deaths have quadrupled since 1999, with more than 183,000 people have died in the U.S. from overdoses related to prescription opioids.[79,80]

While it is unknown how many drug and opioid overdose deaths are associated with workplace injuries and illnesses, it is clear that this national epidemic is impacting workers and employers. Workers face unique risks as injuries sustained at work are increasingly treated with powerful prescription drugs including opioids such as OxyContin, Vicodin, and Demerol. Recent workers' compensation studies reveal that prescription costs are continuing to rise, with controlled substances accounted for 29% of prescription drug costs in 2014.[81]

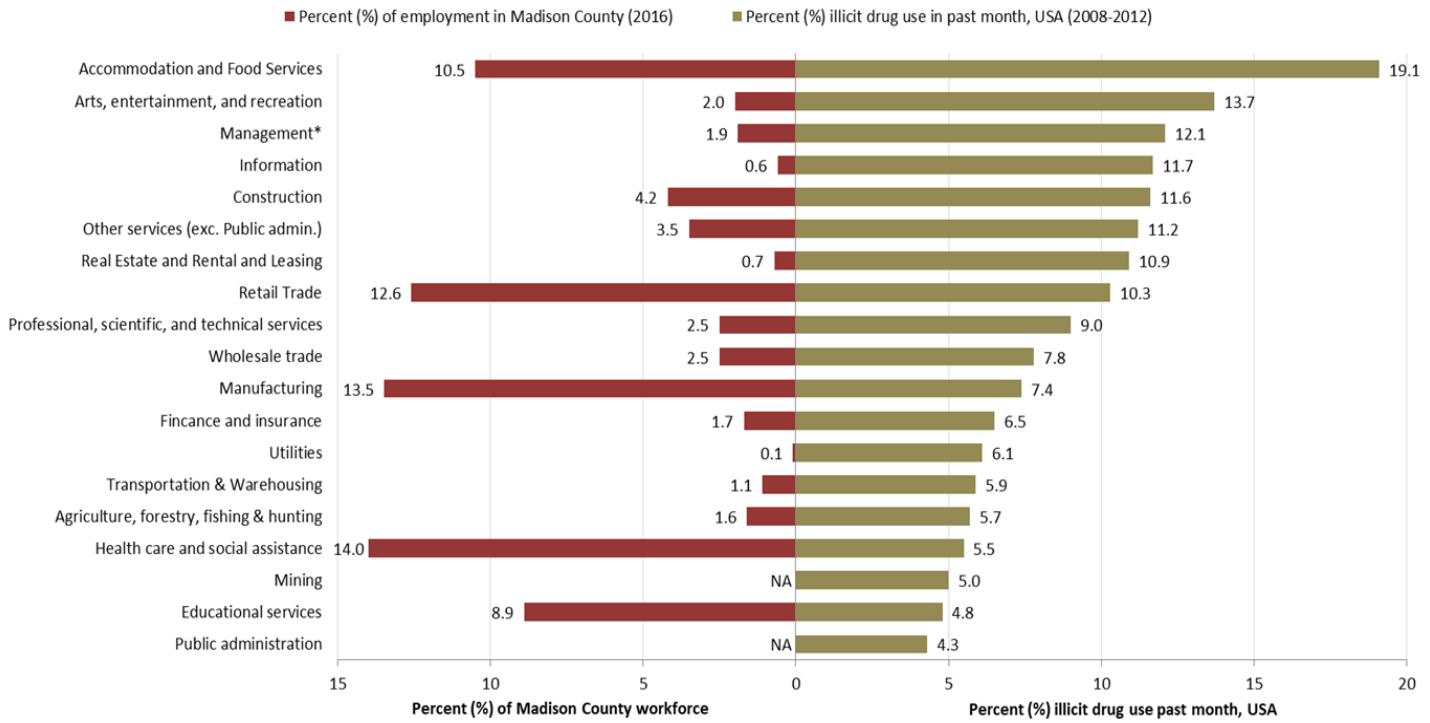
Mental Health & Stress

Many individuals with substance abuse disorders also suffer from mental health disorders.[82] Depressive symptoms in the working population are associated with an increased risk of traumatic injury. The effects that depressive symptoms have on the risk of occupational injury depend mainly on the type of occupation: those in white-collar occupations with depressive symptoms showed significantly increased risks of occupational injury, and those in blue-collar occupations had higher risks of non-occupational injury.[83]

In 2016, rates of work force drug positivity reached their highest rate in 12 years.

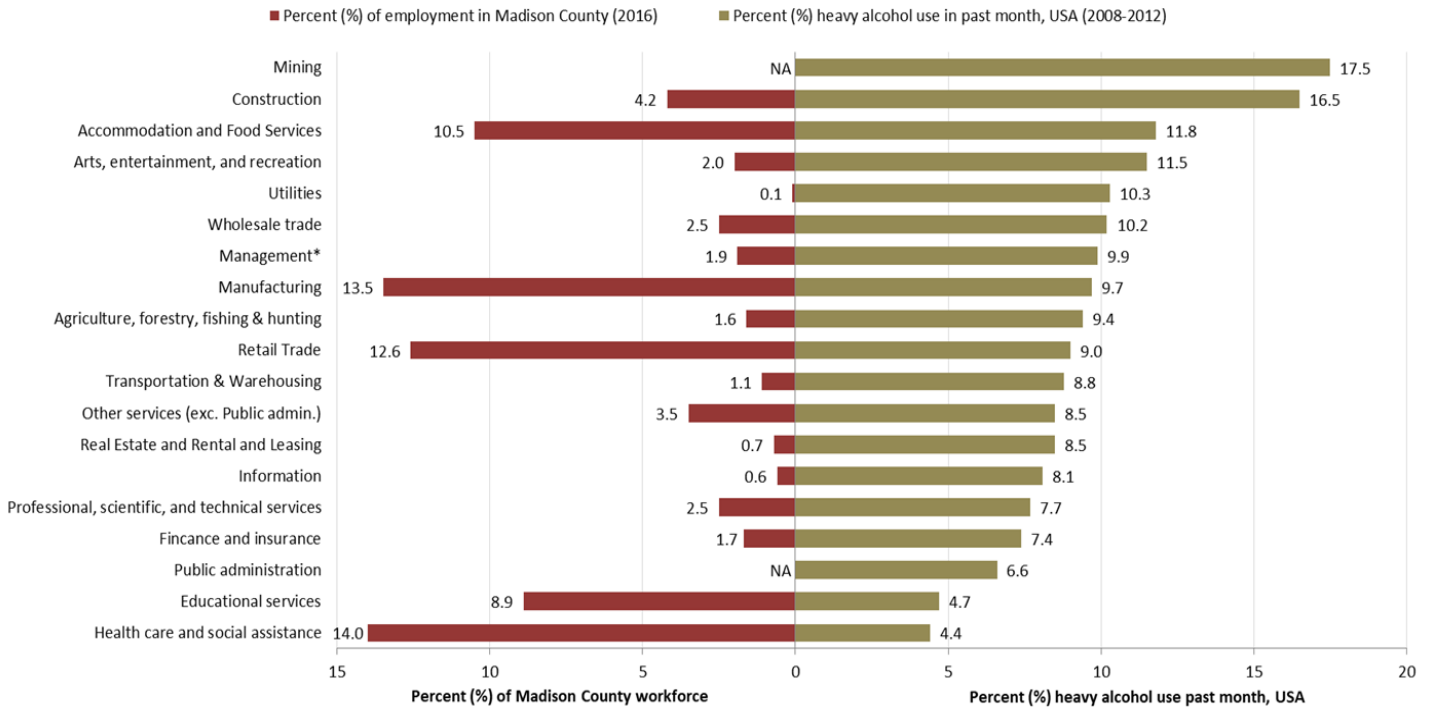
Quest Diagnostics, May 2017

Figure 6: Past month illicit drug use among adults aged 18 to 64 employed full time and percent of Madison County workforce, by industry



Approximately 1 out of every 5 individuals aged 18 to 64 employed full-time in Madison County work in an industry whose employees demonstrate the highest heavy illicit drug and alcohol use within the past month.

Figure 7: Past month heavy alcohol use among adults aged 18 to 64 employed full time and percent of Madison County workforce, by industry



A bi-directional relationship exists between depression and occupational injury. Occupational injury and depression affect each other; however this relationship is different by gender. One study found that female workers with depression were more prone to injury in the workplace than non-depressed female workers; while male workers who had experienced workplace injury were more vulnerable to post-injury depression than non-injured male workers.[84] Another study found that the likelihood of injured workers suffering from depression was 43% higher than that of non-injured workers.[85]

Figure 8. Increased Health & Productivity Risks[86]

Medical	Chest/back pain, heart disease, GI disorders, headaches, dizziness, weakness, repetitive motion injuries
Psychological	Anxiety, aggression, irritability, apathy, boredom, depression, loneliness, fatigue, moodiness, insomnia
Behavioral	Accidents, drug/alcohol abuse, eating disorders, smoking, tardiness, exaggerated diseases.
Organizational	Absence, turnover, poor work relations, morale, job satisfaction, productivity.

Job and personal stresses, along with other job pressures, may manifest themselves as symptoms reflecting increased health, safety, and productivity risks for the individual and organization. Such symptoms may present themselves as medical conditions, psychological disorders, behavioral problems, and organizational malaise (figure 8).[86]

Suicide

Suicide is among the most tragic outcomes of all mental disorders, and the prevalence of suicide has risen dramatically during the last decade, particularly among workers. According to the U.S. Bureau of Labor Statistics Census of Fatal Occupational Injuries, the number of workplace suicides in 2013 was the highest recorded since 1992.[87]

Suicide occurs most frequently among non-Hispanic whites, men, 35-44 year olds, and wage and salary workers; however, individuals over 54 years of age and the self-employed experience the highest suicide risk.[88] In regards to occupational groups, managerial and professional specialty occupations had the highest counts for workplace suicides. Risk was highest for farming, forestry, and fishing occupations. Among detailed occupations, police and detectives in public service had the highest risk of workplace suicides.[88]

Table 4. Madison County Suicide Deaths by Gender and Occupation 2008 – 2016[a]

Occupation	Male	Female	Total	% of Total
Professional, Technical & Managerial	9	5	14	23%
Structural Work (e.g. construction)	10	0	10	16.4%
Agricultural, Fishery & Forestry	5	2	7	11.5%
Service Occupations	6	0	6	9.8%
Machine Trades	4	0	4	6.5%
Transportation	4	0	4	6.5%
Clerical and Sales	2	0	2	3.3%
Self-Employed	2	0	2	3.3%
Other[b]	10	2	12	19.7%

a Only includes January to July 2016

b Includes – student, homemaker, unemployed, disabled, unknown, postal worker

Source: Madison County Department of Health, August 2017.

In Madison County, suicide counts by occupation mirror national data (table 4). Of the 61 suicide deaths recorded between 2008 and 2016, the highest were by non-Hispanic white men (85%), average age of 49 years, and employed in professional, construction and farming related occupations.

Preventive Care

Each year in the United States, an estimated 100,000 deaths could be prevented if persons received recommended clinical preventive care.[89]

Heart disease, cancer, unintentional injury, chronic lower respiratory disease (CLRD), and stroke, represent the top five leading causes of death and disability in the United States.[90] In 2014, approximately 62% of all deaths in the United States were related to the five leading causes of death.[91]

> Cancer is responsible for $128 billion in lost productivity… but could be dramatically reduced if more businesses invested in prevention.
>
> - American Cancer Society (2008)

Many of the leading causes of death and disability can be prevented.[92] Preventive care includes health services like screenings, check-ups, and patient counseling.

Health conditions and lifestyle risk factors are associated with workplace productivity loss.[93, 94] With better health, adults are more productive and work more days. Asthma, high blood pressure, smoking and obesity each reduce annual productivity by between $200 and $440 per person.[95]

Vaccine preventable diseases such as influenza are a major cause of illness and contribute to work absenteeism, work loss, and reduced on-the-job productivity.[96,97] Vaccinating healthy working adults was on average cost saving, with mean savings of $13.66 per person vaccinated.[97]

About 1 in 4 working-age adults in the U.S. has high cholesterol.[98] High cholesterol represent an underlying cause for heart disease and stroke.[99] The medical costs for patients with conditions linked to high cholesterol are significant,[100] as well as the costs associated with absenteeism and loss productivity. Short term disability claims for employees with conditions related to high cholesterol keep an employee off the job for an average of about 44 workdays and costs almost $4,900 in wage replacements.[101]

U.S. employers and employees are paying for the high costs of chronic disease. Health care coverage costs for people with a chronic disease, such as cancer, are five times higher than for those without such a condition.[102]

Compared to the their counterparts, employees who have chronic diseases and unhealthy lifestyle behaviors have higher medical costs, miss more workdays, and are potentially less productive at work.[93, 103, 104, 105, 106]

Health Insurance

Having health insurance increases access to preventive care services.[107] The Affordable Care Act, among other things, expanded health insurance coverage, required the provision of preventive care services (figure 9) and required certain employers to provide adequate coverage or be subject to fines. [108]

Employers are the second largest provider of health insurance coverage in America after the federal Medicare program,[109] and bear approximately 58% of the total em-

Madison County Health Indicators[49]

62.2%

Adult Routine Checkup
(NYS = 70.9%)

65.4%

Colon Cancer Screening
(NYS = 69.3%)

78.8%

Cholesterol Test: Ever
(NYS = 83.4%)

77.1%

Visited a dentist
(NYS = 69.3%)

ployee medical costs.[110]

In 2016, the average annual premiums for employer-sponsored health insurance were $6,435 for single coverage and $18,142 for family coverage. [111]

The average cost for health insurance benefits was $2.50 per hour worked in private industry (7.6 percent of total compensation) in March 2017. Among occupational groups, employer costs for health insurance benefits ranged from 90 cents per hour worked and 5.8 percent of total compensation for service occupations, to $3.94 and 6.7 percent of total compensation for management, professional, and related occupations.[112]

Employer costs for health insurance benefits were significantly higher for union workers, averaging $6.09 per hour worked (12.5 percent of total compensation), than for nonunion workers, averaging $2.16 (6.8 percent of total compensation). Establishments with fewer than 50 workers averaged $1.65 per hour worked for healthcare benefits (6.1 percent of total compensation); those with 50-99 workers averaged $2.21 (7.2 percent); those with 100-499 employees averaged $2.70 (8.3 percent); and those with 500 or more employees averaged $4.35 (8.9 percent).[112]

Small businesses (<200 employees) face particular challenges. Accessibility, affordability, and coverage of employer-sponsored health insurance vary greatly for small and large firms. Small firms are half as likely to offer coverage to their employees, while small firm workers face higher premiums and deductibles.[113]

Figure 9. Preventive Care Benefits for Adults

All Marketplace health plans and many other must cover the following list of preventive services without charging a copayment or coinsurance; even if yearly deductible is not met. **Note:** Services are free when delivered by a provider within the plan's network.

- **Abdominal aortic aneurysm** one-time screening for men
- **Alcohol misuse** screening and counseling
- **Aspirin use** for men and women of certain ages
- **Blood pressure screening**
- **Cholesterol screening** for adults of certain ages or at higher risk
- **Colorectal cancer screening** for adults over 50
- **Depression screening**
- **Diabetes (Type 2) screening** for adults with high blood pressure
- **Diet counseling** for adults at higher risk for chronic disease
- **Hepatitis B screening** for people at high risk,
- **Hepatitis C screening** for adults at increased risk, and one time for everyone born 1945 – 1965
- **HIV screening** for everyone ages 15 to 65
- **Immunization vaccines for adults** :
    - Diphtheria
    - Hepatitis A
    - Hepatitis B
    - Herpes Zoster
    - Human Papillomavirus (HPV)
    - Influenza (flu shot)
    - Measles
    - Meningococcal
    - Mumps
    - Pertussis
    - Pneumococcal
    - Rubella
    - Tetanus
    - Varicella (Chickenpox)
- **Lung cancer screening** for adults 55 - 80 at high risk
- **Obesity** screening and counseling
- **Sexually transmitted infection** (STI) prevention counseling for adults at higher risk
- **Syphilis screening** for adults at higher risk
- **Tobacco Use screening** for all adults and cessation interventions for tobacco users

Seat Belt Use

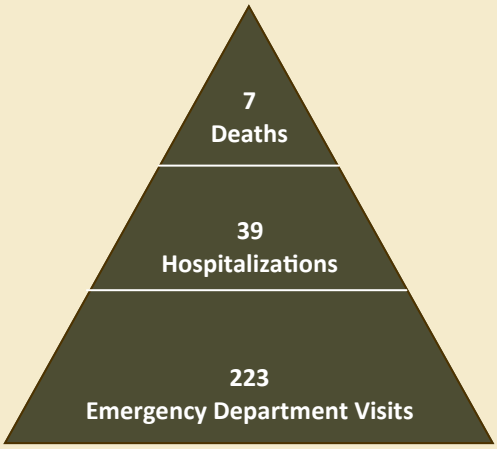
Roadway incidents involving motorized vehicles accounted for 26% of fatal occupational injuries in the U.S. during 2015, and were the leading cause of fatal injuries among workers.[114] In 2012, workers' compensation costs for serious, nonfatal injuries among work-related roadway incidents involving motorized land vehicles were estimated at $3.18 billion.[115]

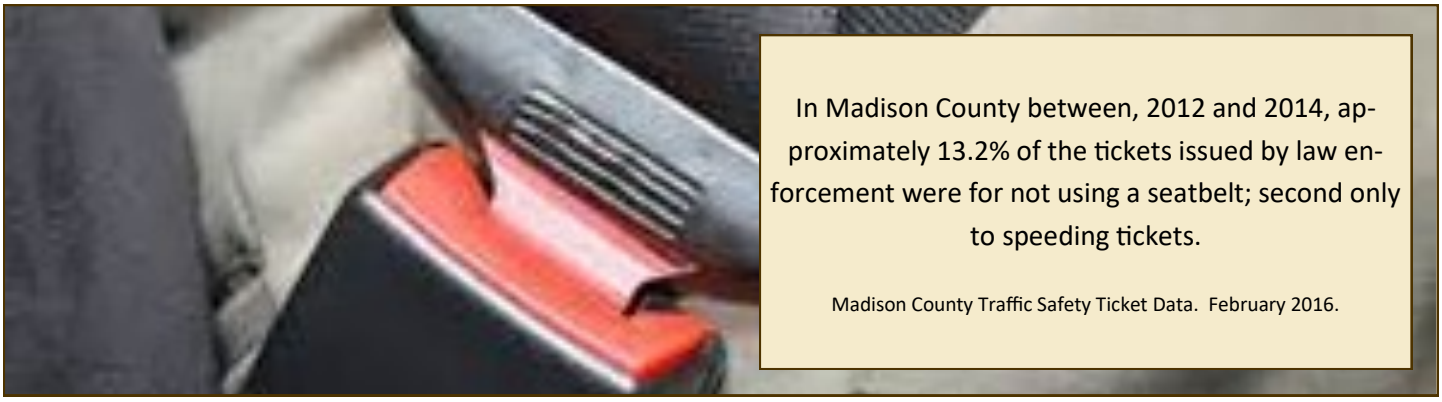
Seat belt use is a proven method to reduce injuries to motor vehicle occupants.[116] Use of lab/shoulder seat belts reduces the risk for fatal injuries to front seat occupants of cars by 45% and the risk to light truck occupants by 60%.[117]

According to the CDC, occupational groups with the highest prevalence of not always using a seat belt included construction and extraction; farming, fishing, and forestry; and installation, maintenance, and repair. CDC further noted that the prevalence of not using a seat belt was higher in states with secondary seat belt laws.[118] New York is a "primary enforcement" state.

Motor vehicle traffic injuries are a serious public health problem in Madison County. They are the fourth leading cause of injury related deaths. Crashes are not only a significant cause of death, pain and suffering (figure 10), but also an economic burden to Madison County. In 2014, the crashes on Madison County's roadways resulted in $4.6 million in hospitalization and emergency department (ED) charges.[119]

Figure 10. Magnitude of the Crash Problem
Madison County - 2014





In Madison County between, 2012 and 2014, approximately 13.2% of the tickets issued by law enforcement were for not using a seatbelt; second only to speeding tickets.

Madison County Traffic Safety Ticket Data. February 2016.

Key Initiatives

Initiatives at the national, state and local levels are working towards improving the overall health and well-being of our workforce, their families, and the economic vitality of our businesses and worksites. The following section highlights a few key initiatives.

Nationally

The Total Worker Health™ (TWH) initiative, originally named the Steps initiative, was launched by the National Institute for Occupational Safety and Health (NIOSH) in June 2011. The TWH initiative aims to protect, support, and enhance the health of workers through comprehensive programs for safe and healthy work, integrated with health-supportive environments and access to adequate health care (figure 11).[120] A key focus of the initiative is to simultaneously address workers' health protection and health promotion within an organization.

Health protection is primarily focused on safety issues, risk management, workers' compensation claims, and exposure to workplace hazards and toxins. In contrast, health promotion is directed at helping employees adopt healthy lifestyle behaviors to prevent disease and disability. This involves promoting primary and secondary prevention to support workers in their efforts to become physically active, eat a healthy diet, manage weight, quit tobacco use, manage stress, and not drink excessive amounts of alcohol. These are typically referred to as

Figure 11. The Total Worker Health Issue Framework

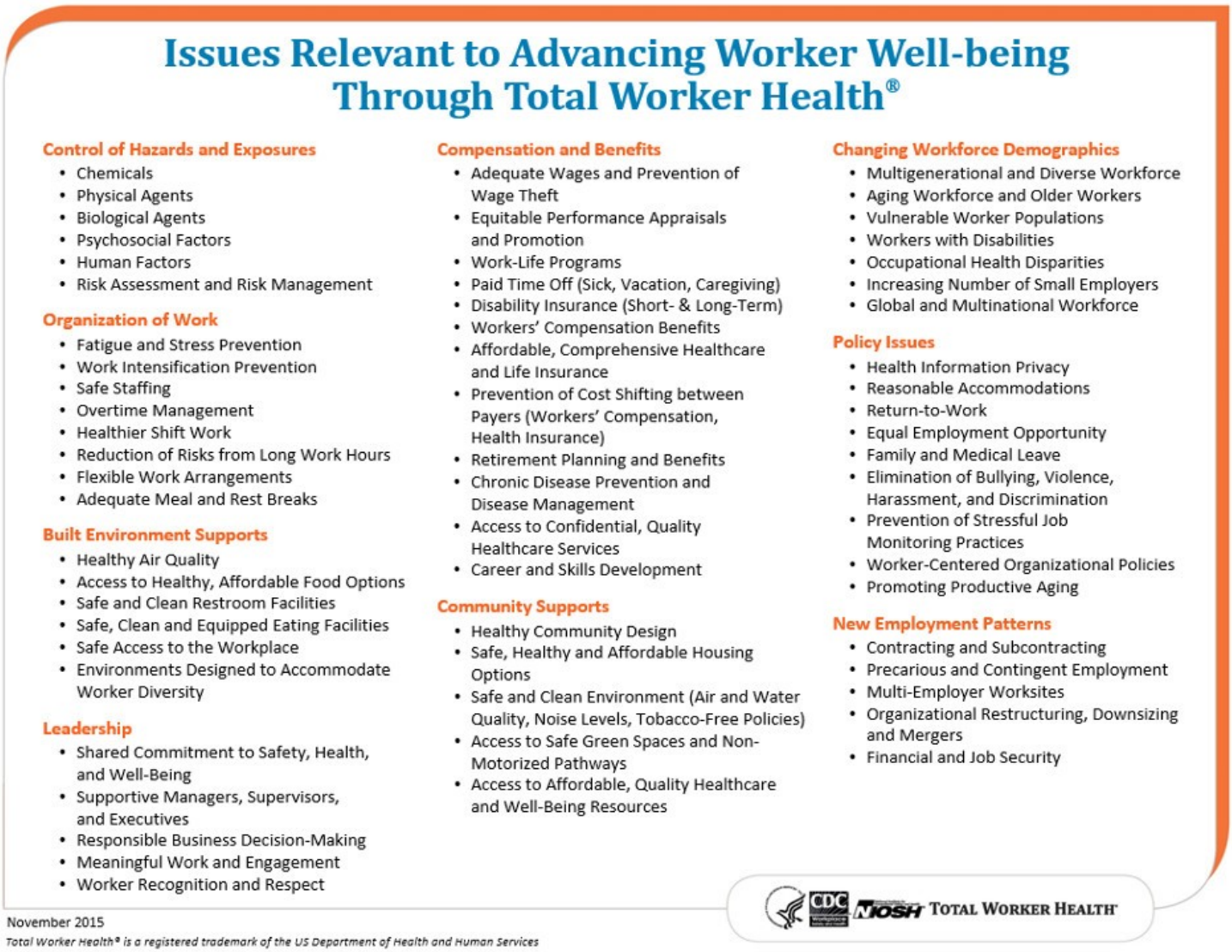


Table 5. National Occupational Research Agenda Sectors	
NORA Sector Group	**NAICS Code**
Agriculture, Forestry & Fishing (except Wildland Firefighting)	11
Construction	23
Healthcare & Social Assistance	62, 54194, 81291
Manufacturing	31-33
Mining (except Oil and Gas Extraction)	21
Oil and Gas Extraction	211, 213111 & 213112
Public Safety (including Wildland Firefighting)	92212, 92214, 92216 & 62191
Services (except Public Safety)	51, 52, 53, 54, 55, 56, 61, 71, 72, 81 & 92
Transportation, Warehousing & Utilities	48-49 & 22
Wholesale and Retail Trade	42 & 44-45

Source: NIOSH, 2016

"wellness" programs.

The TWH initiative uses a sector-based approach to prevent work related deaths, injuries and illnesses based on the North American Industry Classification System (NAICS). NIOSH aggregated the 20 defined sectors from the NAICS into 10 sector groups based on similarities in workplace safety and health issues (table 5).[121] The National Occupational Research Agenda (NORA) drives the research that informs and supports the 10 sector groups.

Over the past several years, best practice themes and the lessons learned have emerged from the research of health, safety, and productivity benchmarking.[122] Table 6 provides a brief description of the 10 best practice themes.

Table 6. Common Themes of Best-Practice Organizations

- Alignment of health, safety, and productivity management efforts and the overall business purpose of the organization.
- Interdisciplinary team focus. Team composed of staff from different function areas (e.g. accounting, human resources, etc.)
- Champion or team of champions to drive the process and champion an integrate vision at all levels.
- Senior management and business operations as key members of the team.
- Engagement of prevention, health promotion, and wellness staff in the process.
- Emphasis on improving quality of life, not just cost-cutting.
- Data measurement, reporting, evaluation, and return on investment (ROI) studies.
- Communication that is constant and directed throughout the organization.
- Constant need to improve by learning form others.
- Having fun.

New York State

In 1987, the New York State Occupational Health Clinic Network (OHCN), the nation's only state-based occupational health clinic network, was established to respond to a serious need for clinical resources to diagnose, treat, and prevent occupational diseases, and to assist New York workers to return to work safely. The 9 OHCN clinics are located throughout the State, including a clinic specializing in farm worker health and safety (figure 12). The Network offers specialized medical diagnosis, health care, and support services such as occupational illness and injury prevention education, medical surveillance examinations, respirator fit testing and clearance examination, fit for duty examinations, and a variety of wellness safety programs.[123]

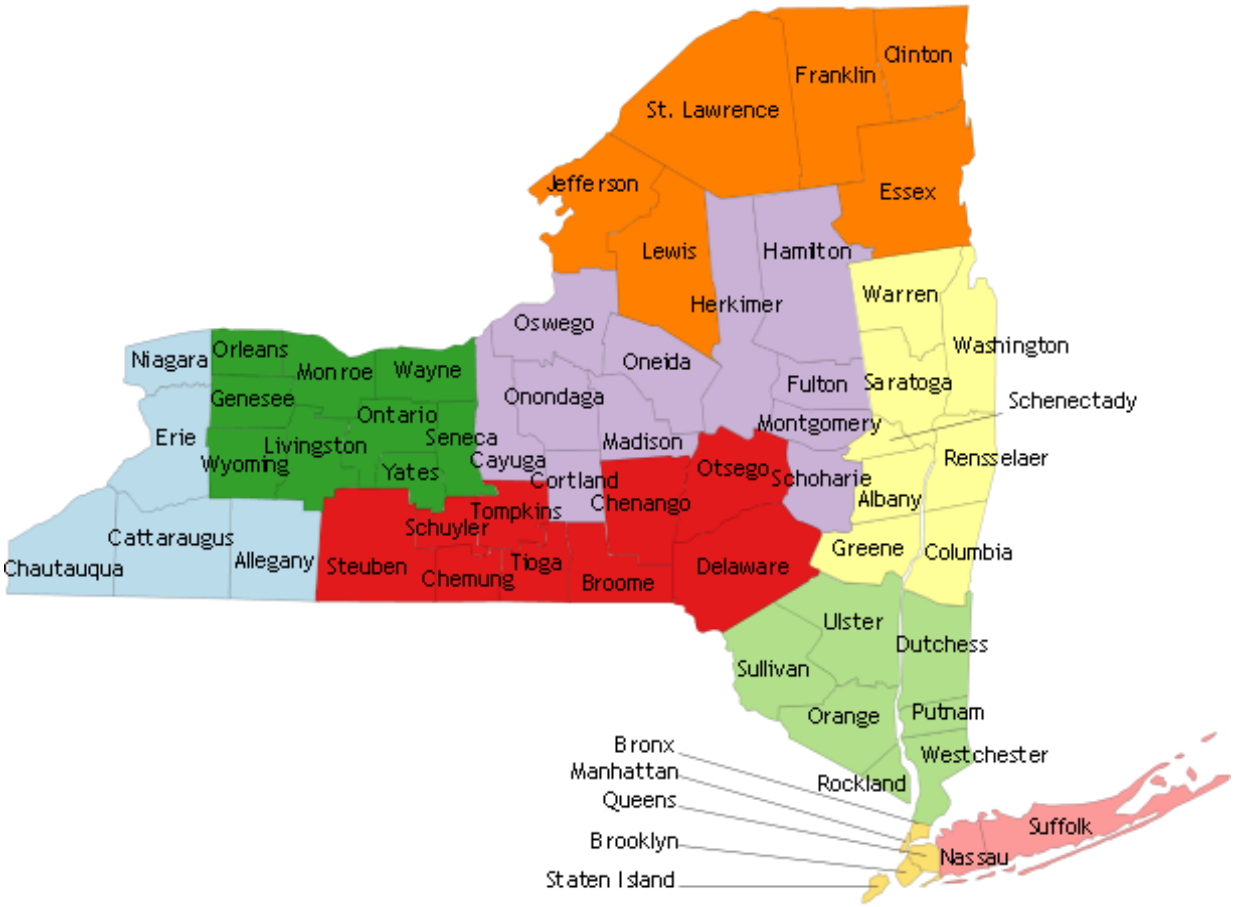
Madison County workers and businesses are served by the Central New York OHCN, who is affiliated with the SUNY Upstate University Hospital in Syracuse.

Madison County

In 2017, a Worksite Wellness Coalition was formed by the Rural Health Council of Madison County to address worker health and safety by bringing together employers to share ideas, best practices, policies, and identify opportunities to collaborate.

The 2016 county's community health assessment and subsequent Community Health Improvement Plan[124] highlighted the need to shift the focus of future health improvement efforts towards the working-aged adult population; specifically in the areas of healthy weight and colorectal cancer screening. The initial focus of the Coalition will be to address obesity and cancer screening among the working population. Evidence based interventions and programs shown to have an impact on these priority areas will be introduced to employers to implement and share with their employees. As the Coalition progresses, further work-related health and safety issues, as identified by coalition members and available data, will be addressed.

Figure 12. NYS Occupational Health Clinic Regions



Linking Health Protection and Health Promotion

The Madison County Healthy Workplaces strategic goal encompasses work-related risks (such as chemicals, noise, excessive stress, and other hazardous working conditions) and personal health risks (such as poor nutrition, physical inactivity, and tobacco use). Strategies and actions are designed to help sustain and improve the health of people who work by identifying effective workplace programs, policies, and practices that address the complexity of work and non-work factors that affect health.

The workplace is a valuable place to evaluate worker health risk and provide interventions. Workplace health programs have the potential to improve worker health status, reduce turnover, reduce absenteeism, improve productivity, and lower health care costs. Worksite health promotion programs ideally provide a systematic approach that emphasizes the following: assessing current activities; planning and establishing goals based on data, sound science, and analysis of gaps and redundancies in health programming; building an infrastructure to administer and manage health promotion activities; and evaluating efforts. A comprehensive workplace health initiative includes:

> "The health and well-being of working people and their families are greatly influenced by the quality of their work environments, whether resulting directly from exposures to physical hazards on the job and risks associated with the organizational context, or indirectly through the impact of work on health behaviors."[125]

- Health promotion programs – studies have shown that being physically active, eating a healthy diet, maintaining a healthy weight, and not smoking are more influential in delaying the onset of chronic diseases than genetic factors.[126]

- Health-related policies – employers can implement workplace policies that promote healthy environments and sustain worker well-being. Adopting improved health behaviors is much easier for workers if there are supportive workplace norms and health policies in place.

- Health benefits – employers that provide health insurance benefits can avoid or reduce the costs associated with preventable conditions by offering coverage for, and promoting the use of, clinical preventive services, including immunizations, screening for chronic diseases, and behavioral counseling.

- Environmental support – the physical work environment provides opportunities for improving the health of all workers and encouraging workers to practice healthy behaviors, such as physical activity, and discouraging unhealthy behaviors, such as using tobacco products. The ability of workers to adopt and maintain healthy behaviors depends, in part, on the support provided by the work environment, managers and coworkers, and the visibility of health as a valued part of work life at all levels of the organization.

The Healthy Workplaces goal framework focuses on linking the prevention potential of worksite health promotion with the prevention of work-related deaths, injuries, and diseases. The coordination of worksite health promotion and worker protection programs shows great potential for a number of reasons:

- Employers, workers, their families, and communities all benefit from the prevention of disease and injury and from sustained health.

- Workplaces create excellent opportunities to deliver useful programs and services.

- Both the work environment and individual choices and behaviors affect worker health.

- Integrating or coordinating occupational safety and health with health promotion may increase program participation and effectiveness for high-risk workers and may also benefit the broader context of work organization and environment.

- Such an approach addresses the urgent and interrelated issues of the health, costs, and productivity of the workforce, which significantly affect the economy.

- This approach offers an opportunity to address health disparities, since disease and injury from both work-related and personal exposures are unevenly distributed throughout the workforce.

- A growing body of evidence indicates that workplace-based interventions that take a coordinated or integrated approach to reducing health threats to workers both in an out of work are more effective than traditional isolated programs.[127, 128]

Key Measures

Healthy People 2020 (HP 2020) and New York State's Prevention Agenda are established and widely-used means by which to assess our progress in improving the health of workers. Measures are evolving for the coordination for worksite health promotion and health protection in the workplace. Listed below are the key measures for Madison County, based on these state and national strategies.

Measure 1	MCHW-1 Reduce deaths from work-related injuries
Baseline	3.1 fatal work-related injuries per 100,000 employed persons aged 16 yrs. and older (2012-2014).
Target	2.8 fatal work-related injuries per 100,000 employed persons aged 16 yrs. and older.
Target Setting Method	10 percent improvement
Data Sources	NYSDOH, Bureau of Occupational Health and Injury Prevention

Measure 2	MCHW-2 Reduce non-fatal work-related injuries
Baseline	210.4 work-related hospitalizations per 100,000 employed persons aged 16 yrs. and older (2012-2014).
Target	189.4 work-related injuries per 100,000 employed persons aged 16 yrs. and older.
Target Setting Method	10 percent improvement
Data Sources	NYSDOH, Bureau of Occupational Health and Injury Prevention

Measure 3	MCHW-3 Increase the proportion of worksites that offer a comprehensive employee health protection and promotion program to their employees
Baseline	To be developed
Target	Baseline plus 10 percent improvement
Target Setting Method	10 percent improvement
Data Sources	Madison County Department of Health /Rural Health Council of Madison County

Measure 4	MCHW-4 Increase the proportion of employees that participate in employer-sponsored health protection and promotion activities
Baseline	To be developed
Target	Baseline plus 10 percent improvement
Target Setting Method	10 percent improvement
Data Sources	Madison County Department of Health /Rural Health Council of Madison County

Measure 5	MCHW-5 Increase the proportion of employees who have access to work-place programs that prevent or reduce employee stress
Baseline	To be developed
Target	Baseline plus 10 percent improvement
Target Setting Method	10 percent improvement
Data Sources	Madison County Department of Health /Rural Health Council of Madison County

Recommendations

The recommendations presented here result from our review of the major sources of injury, illness, and death effecting workers at the local, state and federal levels. These recommendations highlight gaps and identify potential strategies. We anticipate that these recommendations will evolve based on input from stakeholders.

The recommendations were developed with four focus areas in mind: (1) *work-related health conditions*, (2) *occupational health and safety disparities*, (3) *chronic and behavioral health conditions* through *worksite health promotion*, and (4) *coordinating worker safety and health protections with worksite health promotion to optimize health*. These recommendations should in no way be interpreted as replacements for existing efforts.

Four principal strategies were identified and developed to further direct the activities and efforts in each focus area. These strategies include: (1) *Improve research* - Current occupational health and safety research efforts tend to occur at a state, national, and/or industry-specific. Limited research, is done at a county or sub-county level. Research activities should target those issue most pertinent to Madison County industries and employees, (2) *Improve surveillance* - Preventing occupational injuries and illnesses depends on our ability to quantify and track them over time. Surveillance increases the effectiveness of prevention activities by targeting them to industries, workplaces, and occupations with the greatest needs and expands knowledge about which prevention programs are effective, (3) *Transfer knowledge to practice* - For existing knowledge, research findings, technologies, and information to be meaningful to worksites, they need to be translated into practical materials and products that can be successfully utilized by employers and employees, (4) *Improve training opportunities* - Occupational safety and health training represents a fundamental element in the workplace to the reduce occupational risk of injury and disease. Changes in the type of work, job duties, technologies, legislation and composition of the workforce will necessitate training requirements that reflect these changes.

The recommendations and strategies for a Healthy Workforce in Madison County are presented in table 7.

Table 7. Recommendation Matrix for Madison County

Strategy	Focus Area: Work-Related Health Conditions	Occupational Health & Safety Disparities	Chronic & Behavioral Health Conditions	Coordinate Worker Health Promotion with Worker Safety & Health Protection
Improve Research	♦ Major causes of work-related deaths, injuries, and illnesses according to the unique needs of each industry sector. Start with key health and safety issues listed in Table 8.	♦ Utilize research tools and approaches that better consider language, literacy, and cultural differences. ♦ Identify sector-specific interventions and approaches for addressing disparities.	♦ Survey older working adults to gain an understanding of their health challenges.	♦ Define and coordinate a research framework for evaluating effectiveness of worksite promotion and protection programs; and ♦ Partner with the National Centers for Excellence to Promote a Healthier Workforce to address specific research needs in Madison County.
Improve Surveillance	♦ Create an integrated county surveillance system for work-related injuries, illnesses & fatalities.	♦ Among priority work groups (ethnic, low income, old/young) to: ♦ Identify hazards, injuries, and illnesses; ♦ Track data through community-based data collection approaches; and ♦ Make data readily available.	♦ Establish a baseline of health status and health behaviors among county working adults; ♦ Monitor health changes, health disparities, and utilization of effective interventions; and ♦ Identify further research needs.	♦ Establish a baseline and track data on current health-related programs, policies, and practices in workplaces by sector, size of enterprise, etc.
Transfer Knowledge to Practice	Establish mechanisms for transferring findings/knowledge in to practice including: ♦ Resource documents and training materials; ♦ Disseminate information, products, and practices through tailored messages and other communication tools; and ♦ Promote adoption of effective practices and products.	♦ Expand outreach to community-based organizations, state and national organizations and agencies, and labor unions in health of these priority populations; and ♦ Translate research and epidemiological studies of priority populations to practice, policies, and intervention programs.	♦ Identify, compile, and promote recommended interventions, best practices, and measures of effectiveness, with emphasis on interventions that can address multiple risk factors or behavioral and chronic health conditions; ♦ Translate research into policy development and intervention programs; and ♦ Disseminate evidence-based tools, best practices, and products.	♦ Identify and communicate best practices and policies reflecting successful, innovative, integrated, or coordinated approaches to work and health that result in healthier workers.
Improve Training Opportunities	♦ Identify and promote trainings relevant to hazards, illness, and injury prevention.	♦ Identify and promote trainings relevant to occupational health and safety disparities.	Identify and promote trainings relevant to older workers and chronic & behavioral health issues.	♦ Identify and provide training opportunities related to worksite health programs.

Table 8. Key Safety and Health Issues for NORA Sectors (NIOSH, 2007)	
NORA Industry Sector	**Examples of Key Safety and Health Issues**
Agriculture, Forestry, and Fishing	♦ Injuries and deaths from tractor rollovers ♦ Pesticide and other chemical injuries and illnesses ♦ Heat stress in high risk workers, such as agricultural field workers
Construction	♦ Falls ♦ Musculoskeletal disorders ♦ Noise-induced hearing loss
Health Care and Social Assistance	♦ Injuries and illnesses due to infectious agents, chemicals (including hazardous drugs), and work organization /human factors ♦ Musculoskeletal disorders
Manufacturing	♦ Exposures to chemicals ♦ Noise-induced hearing loss ♦ Traumatic injuries
Services	♦ Injuries and deaths from motor vehicle incidents ♦ Workplace violence ♦ Injuries and illnesses due to work organization/human factors
Transportation, Warehousing, and Utilities	♦ Injuries due to transportation incidents ♦ Musculoskeletal disorders ♦ Injuries and illnesses due to work organization/human factors
Wholesale and Retail Trade	♦ Fatalities and injuries due to motor vehicle incidents ♦ Musculoskeletal disorders ♦ Workplace violence

Moving Forward

The first step in implementing a Madison County Healthy Workforce initiative was concluded with the completion of the community health assessment and issuance of the Community Health Improvement Plan (CHIP) report for Madison County, which identified the need to focus on worksite health initiatives. The initial emphasis of the workforce health initiative is on chronic health conditions, specifically colorectal cancer and obesity.

A Worksite Coalition comprised of Madison County employers (with 50+ employees) was established to initially address the chronic health issues identified in the CHIP. At present, the Coalition members are focused on learning more about the specific health issues as they relate to the health of their employees and the impact such conditions may have on their business, and sharing health promotion practices and information. As the Coalition progresses and the work on these issues matures, the Coalition will need to expand their attention to work on other worksite health, safety, and productivity concerns.

To guide the Coalition's future health and safety initiatives, the *Healthy Workplaces in Madison County* report was written. The report provides a more comprehensive description of the conditions and challenges facing our county employers and workforce, and include recommendations for addressing them.

The next step in advancing the healthy workforce initiative will be the development and implementation of an action plan for the recommendations outlined in the report.

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