

POLICY DATA BRIEF

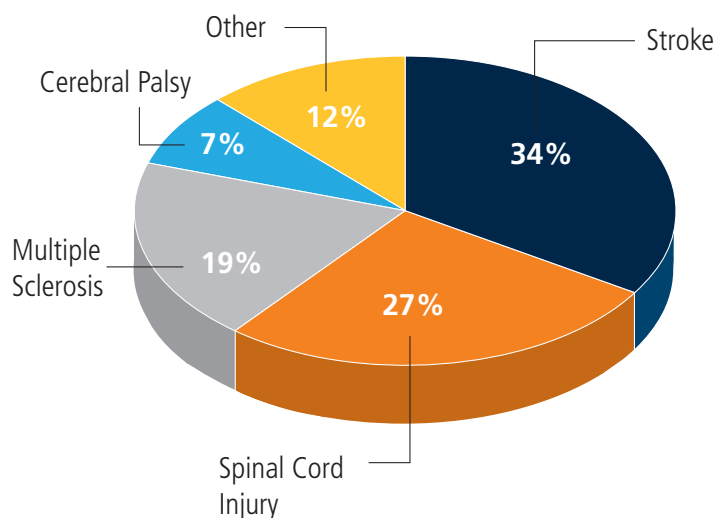
Paralysis in the U.S.

5,357,980 people — roughly 1.7% of the U.S. population — are paralyzed.
1,462,220 have a spinal cord injury.



CAUSES OF PARALYSIS

The leading causes of paralysis are stroke (34%), spinal cord injury (27%), multiple sclerosis (19%) and cerebral palsy (8%).

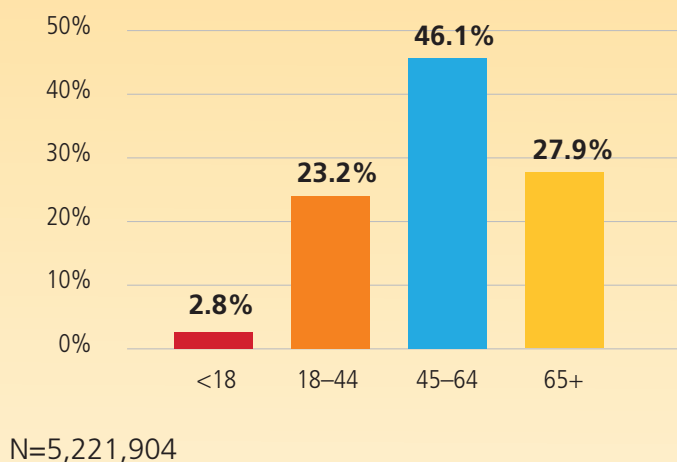


N=5,357,980

AGE DISTRIBUTION

- The average age of people reporting paralysis is 58.
- Roughly 46% of those with paralysis — the largest age group — are 45 to 64 years old. The next largest age groups include those older than 65 (28%) and those 18 to 44 (23%). Only 3% of people with paralysis reported being younger than 18.
- Most of those 65 or older (roughly 82%) became paralyzed after age 45 (considered to have *aged into* paralysis), while about 18% became paralyzed before age 45 (considered to have *aged with* paralysis).

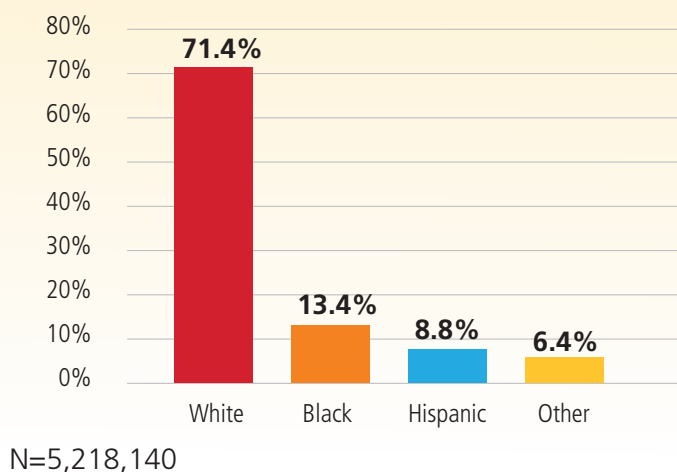
Figure 2. Age distribution among people with paralysis



RACE AND ETHNICITY

- Roughly 71% of those with paralysis are white, 13% are black/African American, 9% are Hispanic and 6% are other.

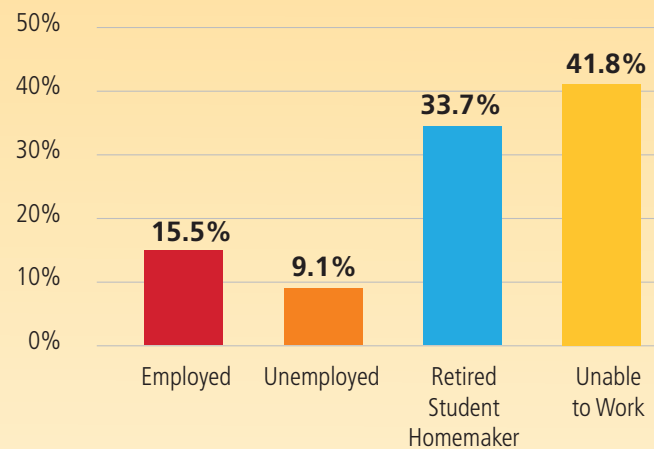
Figure 3. Race and ethnicity of respondents with paralysis



EMPLOYMENT

- Nearly half — roughly 42% — of people who are paralyzed say they are unable to work. Roughly 34% are retired, a student or a homemaker; 16% are employed; and 9% are unemployed and looking for work.

Figure 4. Work status of people with paralysis

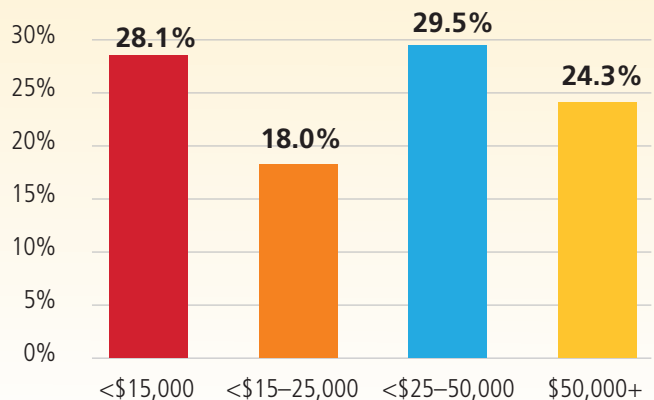


N=3,342,861

INCOME

- Almost one in three respondents with paralysis reports having an annual household income of less than \$15,000, and 18% live on \$15,000 to \$25,000 per year. Roughly 30% have an annual income of \$25,000 to \$50,000, and 24% say their income is more than \$50,000 per year.

Figure 5. Income of respondents with paralysis



N=4,678,054

PARALYSIS AND MILITARY SERVICE

- Seventeen percent of respondents with paralysis say they have served in the military.
- Roughly 41% of those with paralysis who served in the military report that their paralyzing injury occurred while they were on active duty.

ABOUT THE SURVEY

A national, population-based, random-digit-dial survey of over 70,000 households was conducted in 2012 to better understand the health and quality of life of people living with paralysis. The survey used a functional definition of paralysis based on the International Classification of Functioning: *"Paralysis is a central nervous system disorder resulting in difficulty or inability to move the upper or lower extremities."* Paralyzing conditions include stroke, spinal cord injury, multiple sclerosis, spina bifida, cerebral palsy and others. Items used on the population survey were taken from normed, validated surveys including the American Community Survey, Behavioral Risk Factor Surveillance System and others, for the purpose of comparing people who are paralyzed with people with other physical disabilities as well as with those without disabilities. The survey focused on health status, severity, use of and barriers to receiving health care, secondary conditions and comorbidity, affordability of health care, preventive care and health risk behaviors.

ACKNOWLEDGMENTS

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Access to Health Care for People with Paralysis

84% of people living with paralysis in the U.S. — an estimated 2,630,224 individuals — are unable to obtain necessary medical care, tests or treatment.



THE ISSUE

People with paralysis often need more health care than others. Despite their need, 84% of people with paralysis say they are going without medical care, tests and treatments that they or their doctors believe are necessary.

The major barriers to health care are typically financial or physical. More than 30% of people with paralysis say they cannot afford the health care they require— even those with health insurance often struggle with high copayments or coverage denials. Others report having trouble finding transportation or locating nearby health providers. One-quarter of respondents cite lack of accessible medical facilities and services as a barrier.

BARRIERS TO HEALTH CARE

Financial Barriers

Among people living with paralysis, financial barriers most often stand in the way of receiving necessary health care.

Even when they have insurance, people with disabilities are much more likely than people without disabilities — 16% versus 5.8% — to go without needed care because of cost. ¹

Physical Access Barriers

The Americans with Disabilities Act (ADA) was passed in 1990, yet many health facilities and services remain inaccessible to people with paralysis. Moreover, people with disabilities generally have no way of knowing which medical facilities can accommodate them before arriving for appointments.

HEALTH INSURANCE STATUS AMONG PEOPLE UNABLE TO ACCESS CARE

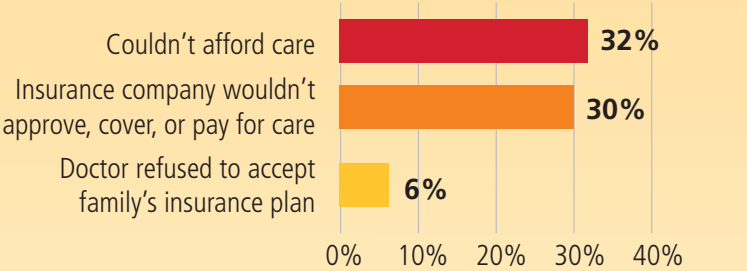
Most people living with paralysis who could not obtain necessary health care had health insurance.

Only 12% of those who couldn't access health care were uninsured

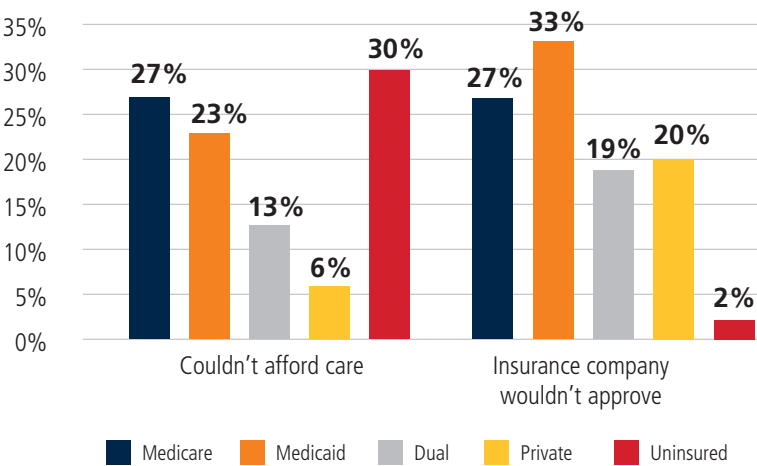
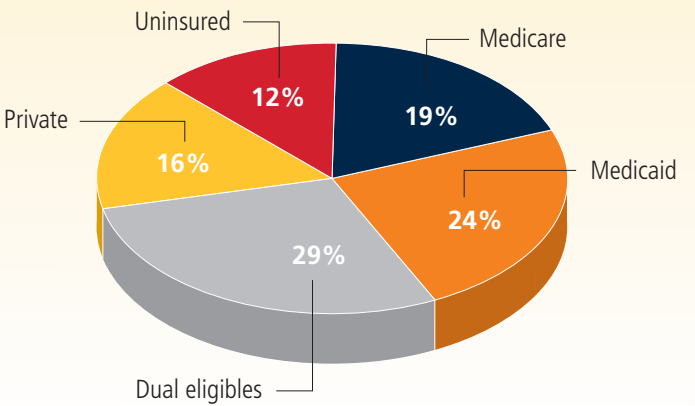
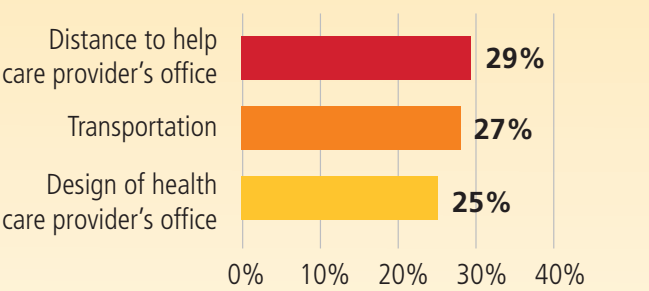
Of people with paralysis who couldn't afford health care, most were uninsured. Of those who were denied coverage by their insurer, most had Medicaid.

30% of those who couldn't afford care lacked insurance, and 33% of those who received insurance denials had Medicaid

Most commonly reported financial barriers are unaffordability of care and denials from insurers



Most commonly reported physical barriers include distance, transportation and inaccessibility of provider's office



RECOMMENDATIONS

High-quality, affordable health care should be within everyone's reach. For people living with paralysis who are at higher risk of developing preventable secondary and other conditions, eliminating financial, environmental, physical, cultural and attitudinal barriers to health care is even more critical. The Affordable Care Act greatly increased access to care for people with paralysis, but many barriers remain.

- Since the Affordable Care Act (ACA) became law in 2010, insurers may not deny coverage on the basis of preexisting conditions. However, many individual plans sold in the ACA marketplaces have prohibitive out-of-pocket costs, such as high deductibles and copayments. **Federal and state governments should fully enforce—and Congress should strengthen—the cost-sharing protections of the ACA.**
- Section 5307 of the Act authorized federal grants for training health care professionals in working with people with disabilities. Unfortunately, funds for this program have never been appropriated by Congress. People with disabilities continue to face attitudinal and programmatic barriers in accessing health care. **Congress should fully fund Section 5307 training programs to enhance the ability of physicians to appropriately serve people with paralysis.**
- Section 1557 of the Act prohibits discrimination on the basis of disability in health insurance. Enforcement of this provision will improve accessibility and coverage of care needed by people with disabilities. In 2013 the Office of Civil Rights at the US Department of Health and Human Services issued a Request for Information from stakeholders about the implementation of this section. As of this document's publication, disability advocates still await proposed regulations to implement this policy and give further enforcement power to the ACA's prohibition on disability discrimination. **The HHS Office of Civil Rights should create strong regulations to enforce section 1557 nondiscrimination protections that incorporate input from disability advocates.**
- Section 4203 of the Act requires the Architectural and Transportation Barriers Compliance Board to issue standards for physical accessibility of medical diagnostic equipment. In 2013 the Board's advisory committee on this effort issued recommendations, but at the time of this document's publication the Board had not issued final regulations. The regulations will provide minimum standards for equipment, but not accessibility standards for physician offices. **The Access Board should issue the final standards for accessible medical diagnostic equipment, and the Food and Drug Administration and Department of Justice should enforce the guidelines.**
- Many states have tried to implement cost-sharing in their Medicaid program, including as a part of the Affordable Care Act's Medicaid Expansion and through 1115 demonstration waivers. Cost-sharing in Medicaid will increase financial barriers to health care among an already low-income population, including people living with paralysis. **The Department of Health and Human Services should reject Medicaid waiver proposals that include new cost-sharing, work requirements, or other new financial mechanisms that limit Medicaid beneficiaries' access to care.**

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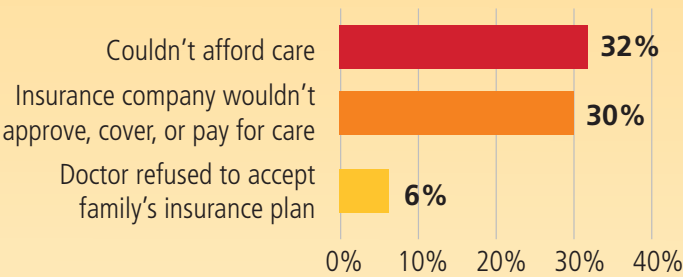
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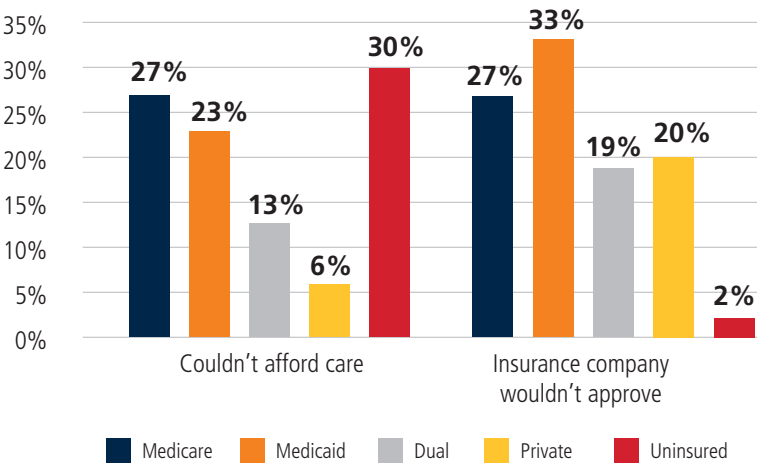
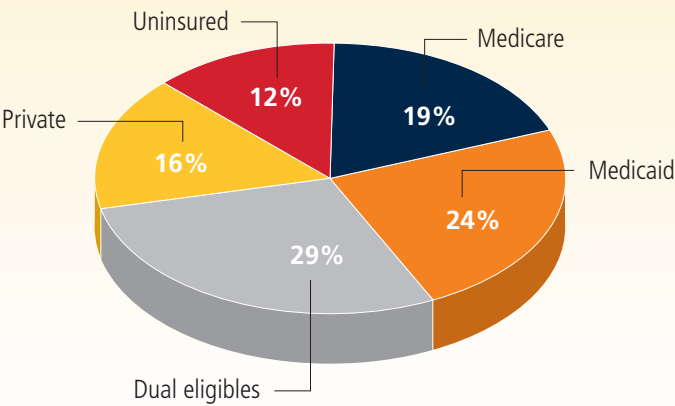
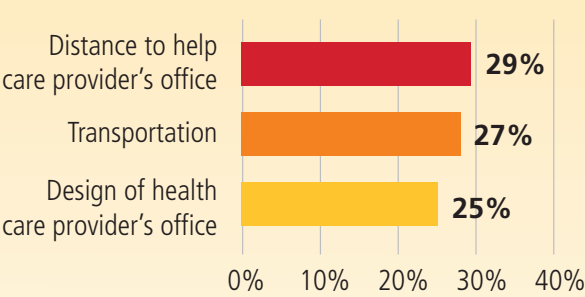
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Prevalence and Causes of Paralysis—United States, 2013

Brian S. Armour, PhD, Elizabeth A. Courtney-Long, MA, MSPH, Michael H. Fox, ScD, Heidi Fredine, MPH, and Anthony Cahill, PhD

Objectives. To estimate the prevalence and causes of functional paralysis in the United States.

Methods. We used the 2013 US Paralysis Prevalence & Health Disparities Survey to estimate the prevalence of paralysis, its causes, associated sociodemographic characteristics, and health effects among this population.

Results. Nearly 5.4 million persons live with paralysis. Most persons with paralysis were younger than 65 years (72.1%), female (51.7%), White (71.4%), high school graduates (64.8%), married or living with a partner (47.4%), and unable to work (41.8%). Stroke is the leading cause of paralysis, affecting 33.7% of the population with paralysis, followed by spinal cord injury (27.3%), multiple sclerosis (18.6%), and cerebral palsy (8.3%).

Conclusions. According to the functional definition, persons living with paralysis represent a large segment of the US population, and two thirds of them are between ages 18 and 64 years. Targeted health promotion that uses inclusion strategies to account for functional limitations related to paralysis can be undertaken in partnership with state and local health departments. (*Am J Public Health*. Published online ahead of print August 23, 2016: e1–e3. doi:10.2105/AJPH.2016.303270)

Public health professionals are frequently challenged when estimating prevalence for people with functional limitations characterizing their disability. Paralysis is one such condition. In 2013, the Centers for Disease Control and Prevention used a standardized definition of paralysis developed by an expert panel and funded the Paralysis Prevalence & Health Disparities Survey (PPHDS). Its goal was to estimate paralysis prevalence, causes, and health effects among the US population. We present this survey's findings.

METHODS

The PPHDS is a national random-digit-dialed telephone survey of the civilian, noninstitutionalized US population. The survey applied dual-frame sampling of landlines and cell phones in an effort to improve coverage. The final response rate for the survey was 12.1%. To ascertain paralysis, respondents were asked: "Do you or does anyone in this household have any difficulty moving their arms or legs?" Those who

answered "yes" were then asked to identify the cause of this movement difficulty. Individuals who were identified by a "yes" response to the first question and then had a specified qualifying diagnosis (i.e., spinal cord injury, traumatic brain injury, stroke, complications from surgery, amyotrophic lateral sclerosis, multiple sclerosis [MS], neurofibromatosis, Chiari malformation, syringomyelia, postpolio syndrome, spinal muscular atrophy, Friedreich's ataxia, transverse myelitis, cerebral palsy, and spina bifida) identified on the second question were classified as having paralysis. The conceptual development, methodology, and validation of survey questions are described elsewhere.¹

Data were weighted to account for the probability of selection and nonresponse and to adjust for age, sex, race/ethnicity, education, region, and metropolitan status population. Data also were adjusted to account for landline or cell phone use. We calculated the prevalence and weighted population estimates of paralysis and the top 4 causes along with demographic characteristics stratified by paralysis cause. (Sample sizes were insufficient to generate stable estimates for other causes that were not stroke, spinal cord injury, MS, and cerebral palsy, so they were grouped together as "other.") Although most information was gathered about the person with paralysis, a limited number of questions were asked of the actual respondent, who was the person with paralysis in 66% of cases. Therefore, information on 2 of the demographic variables (employment status and marital status) is reported for respondents with paralysis. A total of 1305 individuals with paralysis were included in the survey. (The study interviewers dialed 2 606 709 telephone numbers, and 583 678 numbers were deemed to be eligible for survey participation. From the 583 678 eligible telephone numbers, 70 458 interviews were completed and 1305 individuals identified with paralysis.)

RESULTS

Survey findings indicated that an estimated 1.7% of the US population live with paralysis,

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Correspondence should be sent to Brian S. Armour, PhD, Division of Human Development and Disability, National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, 4770 Buford Hwy, Mailstop E-88, Atlanta, GA 30341-3717 (e-mail: barnour@cdc.gov). Reprints can be ordered at <http://www.ajph.org> by clicking the "Reprints" link.

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Note. The findings and conclusions of this article are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention, the Administration for Community Living, or the University of New Mexico.

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which represents a total of 5 357 980 people in 2013 (see the Appendix, available as a supplement to the online version of this article at <http://www.ajph.org>). Approximately 72% of the persons with paralysis were younger than 65 years. Overall, persons with paralysis were mostly female (51.7%), White (71.4%), high school graduates (64.8%), married or living with a partner (47.4%), and unable to work (41.8%). Although 29.5% had a household income between \$25 000 and \$50 000, almost an equal number (28.1%) had a household income of less than \$15 000. According to body mass index (defined as weight in kilograms divided by height in meters squared), acknowledging its limitations as a measurement tool for people with paralysis,² 61.8% of the persons with paralysis were overweight or obese; 30.5% were current cigarette smokers.

Stroke was the leading cause of paralysis, affecting 33.7% (1 804 850) of those with paralysis, followed by spinal cord injury (27.3%; 1 462 220), MS (18.6%; 999 080), and cerebral palsy (8.3%; 445 880). Noticeable variation among the top 4 conditions were seen in age (46.4% of those whose paralysis was caused by stroke were aged 65 years or older vs 4.0% of those with cerebral palsy), sex (65.7% female among those with MS, which is consistent with previous findings,³ vs 45.9%–48.2% for other causes), marital status (65.8% married among those with MS vs 38.6%–46.6% for other causes), and smoking status (7.9% of those with cerebral palsy smoke vs 29.7%–38.1% for other causes). Other major differences were seen in employment status (7.1% of people whose paralysis was caused by stroke were employed vs 40.8% of those with cerebral palsy), obesity (37.8% of persons with stroke were obese vs 13.9% of those with cerebral palsy), and education status (32.3% of those with MS graduated from college vs 15.2%–22.5% of those with other causes).

DISCUSSION

In 2009, Congress authorized the Centers for Disease Control and Prevention to implement public health activities targeted at improving the quality of life for people with paralysis and other physical disabilities.^{4,5} Addressing the quality of life for people with

paralysis first required identifying the population. This was difficult because paralysis is ill defined, and people living with paralysis are not sampled in sufficient numbers in existing surveys to accurately estimate prevalence, cause, and related health effects.¹ To assist with health promotion efforts directed at those living with paralysis, etiology of paralysis and associated health effects needed to be quantified. This report estimates that nearly 5.4 million persons live with paralysis in the United States and that the leading causes of paralysis include stroke, spinal cord injury, MS, and cerebral palsy. Sociodemographic and behavioral factors vary between people living with paralysis based on etiology.

According to the functional definition, paralysis affects a large segment of the US population, with about two thirds of the 5.4 million people between ages 18 and 64 years. Only 15.5% were employed, even though almost a quarter had a college education. About two thirds were underweight, overweight, or obese. More than 30% were current smokers, and among those with spinal cord injury, this prevalence was highest (38.1%). Opportunities for people with paralysis to retain greater independence and full participation in society can be improved through a public health campaign that better illustrates the magnitude of paralysis in the United States and its related effect on conditions such as stroke, spinal cord injury, MS, and cerebral palsy that contribute to it.

Population estimates of spinal cord injury appear much higher in our study than in previous studies, and there appears to be a greater proportion of women with paralysis caused by spinal cord injury than previously thought.⁶ One explanation is that the PPHDS was the first of its kind to estimate paralysis including both traumatic and nontraumatic spinal cord injury as a cause with a nationally representative population-based telephone survey.^{7–9} Previous spinal cord injury estimates were obtained from registries or medical record review at Spinal Cord Injury Model Systems Centers, which represent an estimated 13% of new spinal cord injury cases, with the remainder receiving care in community hospitals.⁶ Moreover, nontraumatic spinal cord injury caused by tumor or spinal stenosis accounts for an estimated 39% of all spinal cord injury hospital admissions.¹⁰

These findings were subject to at least 2 limitations. First, the PPHDS did not sample from persons living in institutions or group homes. Because persons with paralysis likely reside in greater proportions in such facilities, the results likely underestimated true prevalence. Second, estimates for paralysis were based on self or household member report and were not validated by medical record review. However, self- or family-reported data on paralysis status use telephone survey methodology similar to that used in other national health surveillance systems.

PUBLIC HEALTH IMPLICATIONS

This article contributes to the literature by characterizing the prevalence and etiology of paralysis in the United States. These findings point to the importance of ongoing national surveillance to monitor the overall prevalence, causes, and associated health effects of paralysis. Targeted health promotion that uses inclusion strategies to account for functional limitations related to paralysis can be undertaken in partnership with state and local health departments. Walk, wheel, and run events are an example of such activities that include people with paralysis in physical activity in innovative ways. Physical adaptations to the built environment can be made to encourage inclusive activities for people with paralysis. These and other strategies that can be converted to more widespread public health practices are accessible through resources available at the National Center on Health, Physical Activity and Disability¹¹ and the Christopher and Dana Reeve Foundation Paralysis Resource Center.¹² **AJPH**

CONTRIBUTORS

All authors assisted with study design. B. S. Armour provided oversight of the statistical analysis and wrote the first draft of the article. E. A. Courtney-Long led the statistical analysis and contributed to writing the article. M. H. Fox and A. Cahill provided oversight of the statistical analysis and contributed to writing the article. H. Fredine assisted with statistical analysis and contributed to writing the article.

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The authors appreciate project guidance from Machell Town, PhD, and Owen Devine, PhD.

HUMAN PARTICIPANT PROTECTION

The institutional review board at the University of New Mexico determined that the project was exempt from review.

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Appendix. Weighted prevalence of paralysis; weighted frequencies of the leading causes of paralysis, socio-demographic characteristics and behavioral health risks among those with paralysis, United States, 2013.*

	Paralysis % (95% CI [†])	Among those with paralysis				
		Cause of Paralysis				
		Stroke % (95% CI [†])	Spinal Cord Injury % (95% CI [†])	Multiple Sclerosis % (95% CI [†])	Cerebral Palsy % (95% CI [†])	Other [§] % (95% CI [†])
Prevalence	1.7 (1.6, 1.9)	33.7 (30.6, 36.9)	27.3 (24.5, 30.3)	18.6 (16.2, 21.4)	8.3 (6.7, 10.4)	12.1 (10.1, 14.3)
unweighted n	1305	446	352	238	99	170
weighted n	5,357,980	1,804,850	1,462,220	999,080	445,880	645,940
Age (years)						
<18	2.8 (1.8, 4.3)	1.7 (0.5, 5.8)	0	0	22.9 (14.3, 34.4)	3.1 (1.0, 9.1)
18-44	23.2 (20.2, 26.5)	10.9 (7.1, 16.4)	26.9 (21.1, 33.5)	26.1 (19.2, 34.4)	50.4 (38.8, 62.0)	27.5 (19.7, 36.9)
45-64	46.1 (42.8, 49.5)	41.0 (35.5, 46.8)	56.0 (49.5, 62.3)	53.7 (45.7, 61.5)	22.8 (14.7, 33.6)	42.2 (33.3, 51.7)
65+	27.9 (25.1, 30.8)	46.4 (40.8, 52.1)	17.1 (13.3, 21.8)	20.2 (14.7, 27.1)	4.0 (1.4, 10.9)	27.2 (20.6, 35.1)
Sex						
Male	48.3 (45.0, 51.7)	51.8 (46.1, 57.5)	52.3 (45.9, 58.6)	34.3 (27.0, 42.4)	54.1 (42.4, 65.4)	47.5 (38.5, 56.8)
Female	51.7 (48.3, 55.0)	48.2 (42.6, 53.9)	47.7 (41.4, 54.1)	65.7 (57.6, 73.0)	45.9 (34.6, 57.6)	52.5 (43.2, 61.6)
Race/Ethnicity						
White, non-Hispanic	71.4 (68.1, 74.4)	65.6 (59.8, 70.9)	73.3 (67.0, 78.8)	84.2 (77.3, 89.3)	65.9 (53.1, 76.7)	67.2 (57.2, 75.8)
Black, non-Hispanic	13.4 (11.3, 15.8)	19.6 (15.6, 24.4)	12.5 (8.7, 17.6)	8.8 (5.4, 14.0)	12.3 (6.3, 22.9)	5.6 (2.8, 10.6)
Hispanic	8.8 (6.9, 11.2)	9.4 (6.1, 14.2)	7.4 (4.5, 11.8)	2.4 (1.0, 5.6)	20.7 (11.7, 33.8)	12.6 (7.1, 21.2)
Other [¶]	6.4 (4.8, 8.6)	5.4 (3.3, 8.9)	6.8 (4.0, 11.5)	4.7 (1.9, 11.2)	1.1 (0.2, 7.4)	14.7 (8.5, 24.2)
Annual household income						
<\$15,000	28.1 (24.9, 31.5)	30.1 (24.7, 36.1)	30.1 (24.2, 36.8)	20.8 (15.0, 28.2)	26.8 (16.2, 41.1)	30.2 (21.3, 41.0)
\$15-25,000	18.0 (15.5, 20.9)	19.9 (15.5, 25.3)	19.8 (14.8, 26.0)	16.4 (11.2, 23.4)	10.2 (5.0, 19.6)	16.6 (11.3, 23.7)

\$25-50,000	29.5 (26.5, 32.8)	32.2 (26.8, 38.1)	29.4 (23.7, 35.9)	23.8 (17.9, 31.0)	32.4 (22.5, 44.2)	29.1 (21.3, 38.4)
\$50,000+	24.3 (21.5, 27.4)	17.8 (13.9, 22.4)	20.7 (15.9, 26.6)	38.9 (31.1, 47.4)	30.5 (20.9, 42.3)	24.1 (17.0, 33.0)
Education**						
Less Than High School	12.6 (10.4, 15.1)	18.9 (14.5, 24.2)	10.4 (7.3, 14.8)	4.6 (2.4, 8.6)	24.9 (13.8, 40.5)	8.0 (4.0, 15.4)
High School	64.8 (61.5, 68.0)	64.5 (58.7, 69.8)	67.1 (61.0, 72.6)	63.1 (55.2, 70.3)	59.9 (44.3, 73.8)	65.1 (55.5, 73.6)
College	22.6 (20.0, 25.5)	16.6 (13.0, 21.0)	22.5 (18.0, 27.9)	32.3 (25.4, 40.1)	15.2 (7.5, 28.4)	27.0 (19.4, 36.2)
Marital status^{††}						
Never married	15.1 (12.2, 18.5)	11.9 (7.7, 18.1)	16.3 (11.5, 22.6)	9.1 (4.8, 16.3)	34.1 (18.4, 54.2)	22.0 (13.0, 34.8)
Married/living with partner	47.4 (43.3, 51.6)	40.4 (33.0, 48.3)	46.6 (39.6, 53.7)	65.8 (56.7, 74.0)	38.6 (21.2, 59.6)	39.9 (29.6, 51.2)
Divorced/separated	25.8 (22.3, 29.6)	27.8 (21.6, 34.9)	26.6 (20.7, 33.4)	19.6 (13.3, 27.9)	25.0 (11.3, 46.6)	29.0 (19.5, 40.9)
Widowed	11.7 (9.6, 14.3)	19.9 (15.0, 26.0)	10.5 (7.1, 15.3)	5.5 (2.7, 11.0)	2.3 (0.6, 9.2)	9.0 (5.6, 14.2)
Employment status^{††,§§}						
Employed	15.5 (12.6, 18.8)	7.1 (4.2, 11.7)	16.7 (11.9, 22.8)	21.2 (14.1, 30.6)	40.8 (22.8, 61.6)	14.6 (8.3, 24.5)
Unemployed	9.1 (6.8, 12.0)	12.3 (7.7, 19.1)	7.8 (4.7, 12.5)	5.6 (2.3, 13.4)	12.7 (4.6, 30.5)	9.3 (4.0, 20.1)
Retired/student/homemaker	33.7 (30.1, 37.5)	38.8 (32.1, 46.0)	29.9 (24.0, 36.5)	32.3 (24.7, 41.0)	21.2 (9.1, 42.0)	38.4 (28.5, 49.4)
Unable to work	41.8 (37.7, 45.9)	41.9 (34.4, 49.8)	45.7 (38.8, 52.7)	40.8 (32.3, 50.0)	25.3 (12.1, 45.5)	37.7 (26.7, 50.1)
Smoking status						
Current smoker	30.5 (27.4, 33.9)	29.7 (24.4, 35.7)	38.1 (32.0, 44.8)	31.0 (24.2, 38.8)	7.9 (3.2, 18.4)	27.8 (19.7, 37.7)
Former smoker	26.0 (23.2, 29.0)	31.9 (26.9, 37.3)	22.2 (17.2, 28.2)	28.1 (21.6, 35.8)	5.8 (2.2, 14.3)	24.9 (18.4, 32.9)
Never smoker	43.5 (40.1, 46.9)	38.4 (33.1, 44.0)	39.6 (33.2, 46.4)	40.8 (33.4, 48.7)	86.3 (75.2, 92.9)	47.3 (37.8, 56.9)
Body mass index^{¶¶}						
Underweight	4.1 (3.0, 5.5)	2.7 (1.4, 4.9)	2.4 (1.2, 4.5)	5.0 (2.7, 8.9)	10.3 (4.8, 20.8)	6.1 (2.7, 13.2)
Normal	34.2 (30.9, 37.6)	29.6 (24.4, 35.3)	28.3 (22.4, 35.2)	45.6 (37.7, 53.8)	53.4 (41.1, 65.4)	28.8 (21.0, 38.2)
Overweight	29.2 (26.1, 32.4)	30.0 (24.9, 35.6)	32.0 (25.7, 38.9)	26.8 (20.5, 34.2)	22.4 (13.9, 33.9)	29.4 (21.5, 38.8)
Obese	32.6 (29.4, 35.9)	37.8 (32.2, 43.7)	37.3 (31.0, 44.1)	22.7 (16.6, 30.2)	13.9 (7.7, 23.7)	35.7 (27.0, 45.5)

* The descriptive statistics shown here are consistent with those reported by others including the Census Bureau and the Centers for Disease Control and Prevention.

[†]CI denotes confidence interval.

[§] Other causes of paralysis include: traumatic brain injury, amyotrophic lateral sclerosis (ALS), neurofibromatosis, syringomyelia, post-polio syndrome, transverse myelitis, and spina bifida.

[¶]Includes Asian, American Indian/Alaska Native, Native Hawaiian or other Pacific Islander.

^{**}Includes respondents 25 years of age or older.

^{††} All statistics are in reference to people with paralysis. While the majority of survey responders (~66%) were people with paralysis, the information on the survey could have been provided by a household member, and there were two questions reported that were asked only of the responder themselves. These two questions were about marital status and employment.

^{§§}Includes respondents 16 years of age or older.

^{¶¶}Body Mass Index: measured according to reported height and weight: $\text{weight (kg)}/\text{height}^2 \text{ (m)}$. Adult (aged 20 years or older) criteria: underweight <18.5; normal 18.5 - <25; overweight 25 - <30; obese ≥ 30 ; children (aged 19 years and younger) were assessed by age and gender matched percentiles using the CDC childhood BMI calculator.