

# Health Care of Homeless Individuals



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## **EXECUTIVE SUMMARY**

More than 578,000 homeless persons reside on the streets or in shelters on a given night and 1.4 million persons reside in a homeless shelter and an untold number reside on the streets in a given year.<sup>1</sup> On a given night in January 2014, nearly one-third of the homeless persons counted were found in unsheltered locations in places such as the streets, abandoned buildings, vehicles, or parks.<sup>2</sup> Nearly one-quarter were children under the age of 18, ten percent were young adults between the ages of 18 and 24, and two-thirds were adults 25 years of age and older.<sup>3</sup> One-third were homeless people in families and two-thirds were homeless as individuals.<sup>4</sup> Fourteen percent were chronically homeless indicating they have a disability and have been homeless for more than one year or at least four times in the past three years.<sup>5</sup> In addition, thirty percent or 173,324 of the 578,000 persons homeless on a given night live in one of the twenty-three states that have not yet expanded Medicaid under the Patient Protection and Affordable Care Act (ACA).

About 1.1 million homeless individuals visited grant-supported federally qualified health centers to receive health care in 2013, the most recent year in which data are available. Hundreds of thousands of these individuals likely have one or more chronic conditions or other life-threatening or serious conditions. With the limited expansion of health insurance coverage in twenty-three states and the limited number of health clinics, a significant number of homeless persons likely only have access to emergency care or have no source of health care and are unable to receive care or have delayed medical or dental care. For those individuals with life-threatening or serious conditions and without access to timely care, the lack of care can result in death or other severe consequences.

Chronic conditions are medical conditions that are long-lasting and can have severe adverse health effects. In this report, the descriptions, symptoms, and available treatments for seven of the most common and lethal chronic conditions are detailed with information about the number of Americans who died because of the condition and the number of patients at Health Care for the Homeless Program Centers (HCHs) diagnosed with the condition or similar information:

- **Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS)** is a virus that destroys an infected person's immune system, is treated with combination antiretroviral therapy, was the cause of death of 15,529 Americans in 2010, and was diagnosed in 13,206 HCH patients in 2013.

- **Cancers** are diseases that cause uncontrolled cell growth, are treated with various methods, including chemotherapy, radiation, cell and marrow transplantation, stem cell therapy, hormonal therapy, immune checkpoint modulators, cancer treatment vaccines, immune-modifying agents, monoclonal antibodies, angiogenesis inhibitors, oncolytic virus therapy, hyperthermic treatment, cryosurgery, and photodynamic therapy, and was the cause of death of 574,743 Americans in 2010, and of the only two reported statistics, abnormal female breast findings were diagnosed in 3,231 HCH patients and abnormal cervical findings were diagnosed in 5,007 HCH patients in 2013.
- **Hepatitis B and C** are diseases that cause acute illness or chronic cirrhosis of the liver, end-stage liver disease, and liver cancer, their symptoms and complications are treated with beta blockers, diuretics, antibiotics, laxatives, dialysis, surgery, endoscopic procedures, radiation, and chemotherapy, were the cause of death of 1,792 and 16,627 Americans in 2010, and were diagnosed in 1,556 and 24,277 HCH patients in 2013.
- **Cardiovascular Disease** are a category of diseases that affect the heart, the blood vessels, or both, heart disease and stroke are treated by checking cholesterol levels, monitoring and improving blood pressure, managing diabetes and closely monitoring blood sugar levels, and working with doctors to prevent or treat medical conditions that lead to heart disease and hypertension is treated with two or more antihypertensive medications, weight loss, diet, limited sodium consumption, aerobic exercise, and follow-up doctors' visits and medication adjustments, cardiovascular disease was the cause of death of 780,213 Americans in 2010, and heart disease and hypertension were diagnosed in 25,456 and 155,805 HCH patients in 2013.
- **Diabetes and Chronic Kidney Disease (CKD)** involves diabetes, which is a group of metabolism diseases in which a person has high blood sugar due to insufficient or malfunctioning insulin production or response, and CKD, which is a condition in which a person's kidneys are damaged and cannot filter wastes out of the bloodstream, diabetes, are treated and managed by healthful eating, regular physical activity, losing excess weight, and taking medications to lower blood glucose levels, and, not counting contributing causes, were the cause of death of 69,081 and 50,476 Americans.
- **Asthma** is a disorder that contracts airway muscles, obstructs airflow and causes wheezing, coughing, shortness of breath, and chest tightness, is controlled with education, written plans, inhalers, asthma medications, routine doctors visits, was the

cause of death of 2,858 Americans in 2010, and was diagnosed in 101,244 HCH patients in 2013.

- **Chronic Lower Respiratory Diseases** are a group of diseases, including the two main ones — chronic bronchitis and emphysema, that cause breathing problems, mucous production, airflow blockage, and breathlessness, are treated with education, smoking cessation, bronchodilators, inhaled corticosteroids, pulmonary rehabilitation, oxygen, and surgery, were the cause of death of 138,080 Americans in 2010, and the two main diseases were diagnosed in 15,002 HCH patients in 2013.

In addition to discussing chronic conditions, this report explores other life-threatening or serious conditions. As with the section on chronic conditions, the descriptions, symptoms, and available treatments for six other life-threatening or serious conditions are detailed with information about the number of Americans who died because of the condition and the number of patients at HCHs diagnosed or treated for the condition or related problems, when available:

- **Tuberculosis** is a bacterial disease that can cause fatigue, malaise, weight loss, fever, night sweats, usually infects the lungs causing coughing, chest pain, and coughing up of blood or sometimes infects other parts of the body, such as the brain, spine, or kidneys, is treated with medications, was the cause of death of 569 Americans in 2010, and was diagnosed in 1,443 HCH patients in 2013.
- **Sexually Transmitted Diseases** are diseases such as chlamydia or gonorrhea, which can cause chronic pelvic pain, life-threatening ectopic pregnancies, or infertility or syphilis, which can damage internal organs and cause numbness, paralysis, blindness, dementia, and death, and syphilis was the cause of death of 28 Americans in 2010 and was diagnosed in 6,701 HCH patients in 2013.
- **Heat-related Illnesses** are illnesses such as heat exhaustion and heat stroke caused by exposure to high temperatures, are prevented by drinking additional water and staying in air-conditioned environments, were the cause of death of 794 Americans in 2010, and dehydration and exposure to heat or cold were diagnosed in 1,290 and 1,326 HCH patients in 2010.
- **Hypothermia** is the lowering of the body temperature to less than 95°F, is prevented by avoiding exposure to cold temperatures, is treated with early recognition and prompt medical care, was the cause of death of 1,536 Americans in 2010, and exposure to heat or cold was diagnosed in 1,326 HCH patients in 2010.

- **Dental problems** such as tooth decay and gum disease can cause the loss of teeth, can be treated, along with community water fluoridation and dental sealants for tooth decay, with regular dental visits and brushing and flossing, were the cause of death of 432 Americans in 2010, and 11,276 HCH patients received emergency dental services and 39,079 HCH patients had oral surgery in 2013.
- **Eye Diseases** are diseases such as glaucoma, diabetic retinopathy, cataracts, and age-related macular degeneration that can cause blindness, are treated with specific means such as eye pressure lowering medications, laser trabeculoplasty, and surgery for glaucoma, controlling blood sugar, blood pressure, and blood cholesterol, laser surgery, and vitrectomy for diabetic retinopathy, new eyeglasses, anti-glare sunglasses, brighter lighting, magnifying lenses, and cataract removal surgery for cataracts, and nutritional supplements, anti-VEGF protein injection therapy, and laser treatment for age-related macular degeneration, and were the cause of death of 53 Americans in 2010.

Although hundreds of thousands of homeless people have one or more chronic condition or other life-threatening or serious condition, many do not have access to health care or have delayed care:

- **Hundreds of thousands of homeless people likely do not have access to health insurance:** Not only do 173,324 persons homeless on a given night live in a state that has not yet expanded Medicaid under the Affordable Care Act, but this number is likely much higher when considering all of the persons that are homeless over the course of an entire year. In 2013, in the year before Medicaid coverage was expanded under ACA, 57% of the 851,641 patients at HCHs across the country were uninsured. In the twenty-eight states expanding Medicaid coverage, 4.4 million of the 14.1 million (31%) of the patients at Community Health Centers (CHCs) and Health Care for the Homeless Program Centers were uninsured, and in the twenty-three states not yet expanding Medicaid coverage, 3.0 million of the 7.1 million patients (42%) at CHCs and HCHs were uninsured in 2013, indicating that two-fifths of uninsured patients at these health clinics were in states not expanding Medicaid coverage.
- **Many or most homeless people are unable to obtain health care or have delayed care:** Forty percent of interviewed homeless patients who needed medical care or prescriptions in the last year were unable to receive the care or medicine or had delayed care and 60% who needed dental care were unable to get it or had delayed care.

- **Many or most homeless people are not receiving preventive care to prevent life-threatening conditions:** About one-third of interviewed homeless patients did not receive a recommended mammography to detect breast cancer. Three-fifths of interviewed homeless patients did not obtain recommended screening to detect colon cancer.

Without access to health insurance, hundreds of thousands of homeless Americans may be unable to receive preventive care, early diagnosis critical in saving their lives, and/or treatment necessary to ease their suffering, avoid complications, and, in some cases, cure chronic conditions and other life-threatening or serious conditions. Health insurance or access to health care, prescription medicine, and treatment should be made available for all homeless people and all Americans.

## **INTRODUCTION**

Many homeless patients have chronic conditions or other life-threatening or serious conditions, more than half of homeless patients do not have health insurance, and many homeless patients do not have access to health care to treat their conditions or illnesses or have delayed access to health care. This means that although Community Health Centers (CHCs), Health Care for the Homeless Program Centers (HCHs), and Emergency Rooms are able to treat acute emergencies and manage some patients' chronic conditions and see millions of homeless patients every year, the chronic conditions of many patients are not being adequately managed to prevent major complications.

## **HEALTH STATUS**

In addition to doctor's offices, the fundamental facilities of our nation's health care system are health centers, which include HCHs, CHCs, migrant health centers, school-based health centers, public housing health centers, and our nation's hospitals and emergency departments. CHCs and HCHs have been providing comprehensive primary health care services to medically underserved communities and people for more than 45 years.<sup>6</sup> In addition to primary health care services, health centers provide supportive services such as education, translation, and transportation that promote access to health care.<sup>7</sup> In 2013, at 1,202 Grant-Supported Federally Qualified Health Centers, physicians, nurse practitioners, physician assistants, and certified nurse midwives served 21.7 million patients, including 1,131,414

homeless individuals.<sup>8</sup> In 2010, there were approximately 129 million emergency room visits at 4,564 emergency departments across the United States.<sup>9</sup>

Recent data of visits by homeless patients to CHCs, HCHs, and emergency rooms illustrate that a majority of homeless individuals had a chronic condition or other serious illness or condition.

Patients at HCHs were diagnosed with several chronic conditions, including Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS), hepatitis or other liver conditions, asthma, cancer, chronic bronchitis or emphysema, diabetes, heart disease, hypertension, and kidney disease.<sup>10</sup> These chronic conditions are serious and often fatal to large numbers of people. Some of the other life-threatening illnesses or conditions that homeless people in clinics have commonly experienced are tuberculosis, sexually transmitted diseases, heat-related illnesses, hypothermia, dental problems, and eye problems.<sup>11</sup>

Homeless individuals attended to in emergency departments had many different chronic, life-threatening, or serious conditions or illnesses. Upon being evaluated in a hospital emergency room, fifty-seven percent of the 288 patients identified as homeless in the 2010 National Hospital Ambulatory Medical Care Survey were diagnosed with one or more physical medical illnesses or injuries or chronic conditions.<sup>12</sup> The physical conditions of the homeless patients seen in the emergency rooms ranged from contusions, broken bones, dehydration, electrolyte imbalance, and skin rashes to more serious and life-threatening conditions, such as meningoencephalitis, heat fatigue, skin infections and dental abscesses, fainting, convulsions, subdural hemorrhage, viral infection, pregnancy problems, blood disorders, asthma, diabetes, hypertension, chest pain, shortness of breath, spleen injury, kidney injury and disease, hepatitis, and HIV.<sup>13</sup>

## CHRONIC CONDITIONS

Hundreds of thousands of the homeless patients at Community Health Centers and Health Care for the Homeless Program Centers have one or more chronic condition. The 2013 data for HCHs show that many of their 851,641 patients, 96% of which are homeless, were diagnosed with chronic conditions: HIV (1.5%), hepatitis B (0.2%), hepatitis C (2.9%), asthma (5.9%), chronic bronchitis and emphysema (1.8%), diabetes mellitus (9%), heart disease (selected) (3%), hypertension (18.3%), contact dermatitis and other eczema (2.2%) (See Table 1).<sup>14</sup> In addition, some of the homeless patients may have cancer. Of the 379,295 female patients seen at HCHs in 2013, 0.9 percent were diagnosed with abnormal breast findings and 1.3 percent were diagnosed with abnormal cervical findings, raising the possibility of breast cancer and cervical cancer.<sup>15</sup> The physical conditions of 288 homeless patients seen in emergency rooms in 2010 included

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chronic conditions: HIV, hepatitis, asthma, shortness of breath, diabetes, chest pain, hypertension, kidney injury, spleen injury, blood disorders, and skin rashes and skin infections.<sup>16</sup>

**Table 1. Number of Patients Diagnosed in Healthcare for the Homeless Clinics with a Chronic Condition and Number of Deaths in the United States from a Chronic Condition**

Chronic Condition	Deaths (2010)	Patients Diagnosed (2013)
HIV	15,529	13,026
Cancer	574,743	
Breast Cancer	41,435	3,231 <sup>1</sup>
Cervical Cancer	3,939	5,007 <sup>2</sup>
Hepatitis B	1,792	1,556
Hepatitis C	16,627	24,277
Cardiovascular Disease	780,213	
Heart Disease	597,213	25,456 <sup>3</sup>
Cerebrovascular Diseases	129,476	
Hypertension and Hypertensive Renal Disease	26,634	155,805 <sup>4</sup>
Atherosclerosis	7,230	
Other Diseases of the Circulatory System	19,184	
Diabetes	69,081	76,517
Kidney Disease and Renal Failure	50,476	
Asthma	2,858	101,244
Chronic Lower Respiratory Diseases	138,080	15,002 <sup>5</sup>

Sources: CDC, HHS, HIV in the United States: At A Glance (Nov. 2013), available at [http://www.cdc.gov/hiv/pdf/statistics\\_basics\\_factsheet.pdf](http://www.cdc.gov/hiv/pdf/statistics_basics_factsheet.pdf); S.L. Murphy et al., Nat'l Ctr. for Health Statistics, National Vital Statistics Reports: Deaths: Final Data for 2010, Volume 61, No. 4 (May 8, 2013), available at [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf); CDC, HHS, Viral Hepatitis Surveillance, United States, 2012, available at <http://www.cdc.gov/hepatitis/Statistics/2012Surveillance/PDFs/2012HepSurveillanceRpt.pdf>; CDC, HHS, National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014 (2014), available at <http://www.cdc.gov/diabetes/pubs/statsreport14/national-diabetes-report-web.pdf>; CDC, HHS, Asthma Facts: CDC's National Asthma Control Program Grantees (Jul 2013), available at [http://www.cdc.gov/asthma/pdfs/asthma\\_facts\\_program\\_grantees.pdf](http://www.cdc.gov/asthma/pdfs/asthma_facts_program_grantees.pdf); Health Resources and Services Administration (HRSA), HHS, 2013 Health Center Data, <http://bphc.hrsa.gov/uds/datacenter.aspx?q=tall&year=2013&state=&fd=ho> (last visited Oct. 8, 2014).

<sup>1</sup> Abnormal female breast findings

<sup>2</sup> Abnormal cervical findings

<sup>3</sup> Heart Disease (selected)

<sup>4</sup> Hypertension

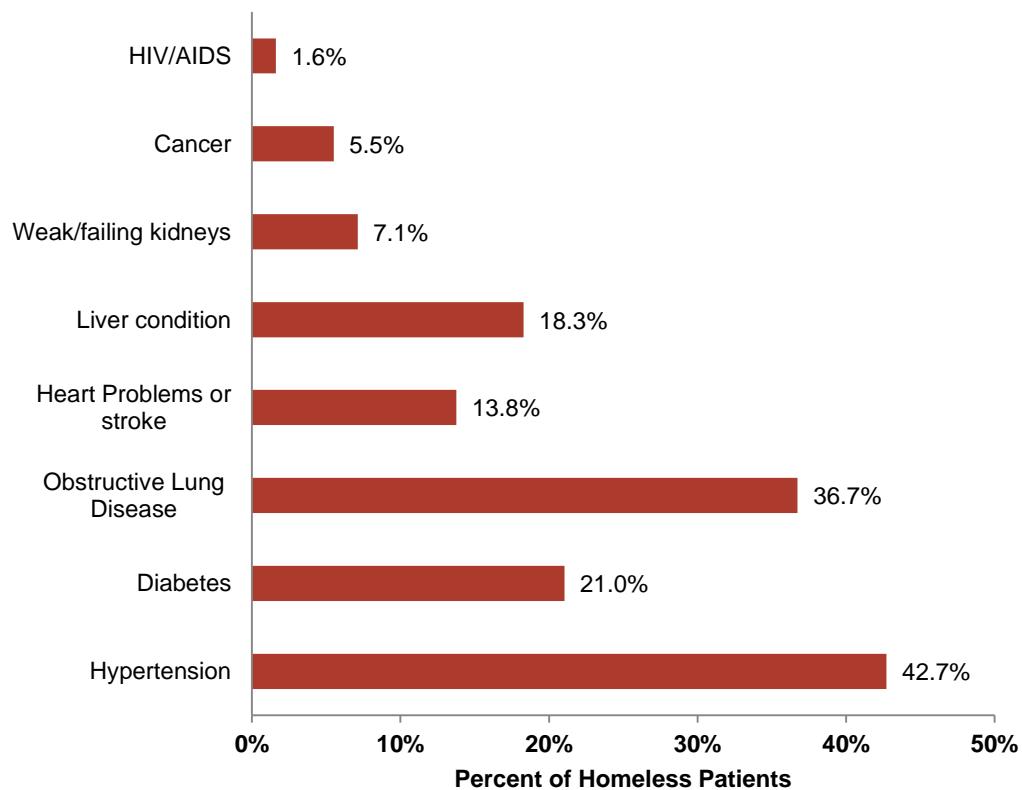
<sup>5</sup> Chronic Bronchitis and Emphysema

Many of these percentages were much larger in interviews of 618 homeless patients conducted at CHCs and HCHs in 2009. In those interviews, 18.3 percent of the patients had a liver condition, 36.7 percent of the patients had obstructive lung disease (asthma, emphysema, or chronic bronchitis), 21 percent of the patients had diabetes, 13.8 percent had heart problems (specifically congestive heart failure, coronary heart disease, angina pectoris, and myocardial

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infarction) or stroke, and 42.7 percent had hypertension (See Figure 1).<sup>17</sup> Overall, 73 percent of 618 homeless individuals interviewed had one or more chronic conditions.<sup>18</sup> In addition, the interviews identified additional chronic health problems that many homeless patients were suffering. Specifically, 5.5 percent of the interviewed patients had cancer and 7.1 percent had weak or failing kidneys.

**Figure 1. Percent of Homeless Patients at Community Health Centers and Health Care for the Homeless Program Centers with Each Chronic Condition**



Source: Lydie A. Lebrun-Harris, et al., *Health Status and Health Care Experiences Among Homeless Patients in Federally Supported Health Centers: Findings from the 2009 Patient Survey*, 48 *Health Services Research* 992 (2013).

Although each chronic condition can cause mortality, treatments are available. The following section discusses each chronic condition, the number of deaths due to the chronic condition in 2010, the treatments available, and the number of homeless patients who were diagnosed with the chronic condition at HCHs in 2013.

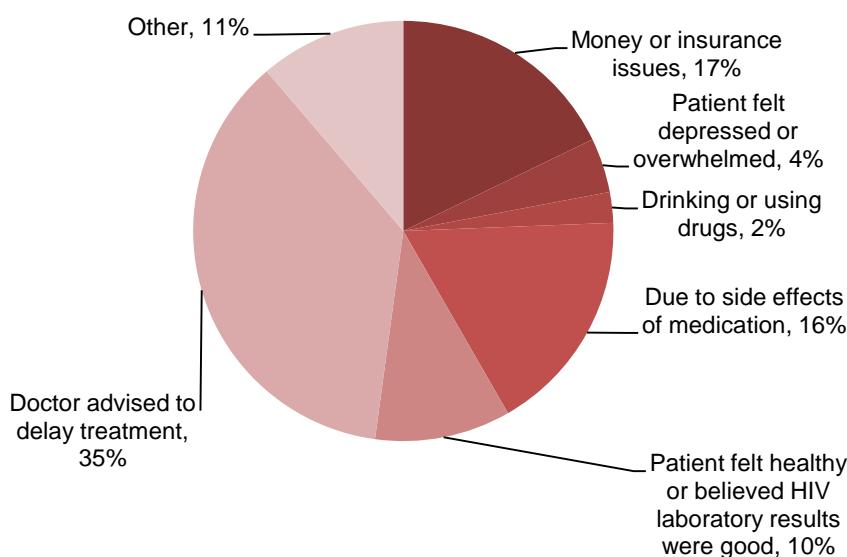
### **HIV/AIDS**

HIV is a virus that destroys immune cells so that the immune cells are at such a low level that they cannot fight off infections and diseases. An estimated 15,529 people with an AIDS

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diagnosis died in 2010.<sup>19</sup> Combination antiretroviral therapy (ART) suppresses the virus levels of 77 percent of HIV-infected persons who receive medical care and are prescribed ART,<sup>20</sup> which can dramatically prolong the lives of HIV-infected persons.<sup>21</sup> Virus reduction is more likely to be successful in patients who have a low baseline level of the virus, higher baseline CD4 T lymphocyte (immune cell) level, and excellent adherence to the treatment regimen suggesting the importance of receiving treatment as early as possible and with sustained access to health care and social supports to be able to adhere to the regimen and receive assistance to cope with treatment side effects.<sup>22</sup>

**Figure 2. Main Reason HIV-Infected Patients Were Not Currently Taking ART, Among Those Persons with a History of ART Use**



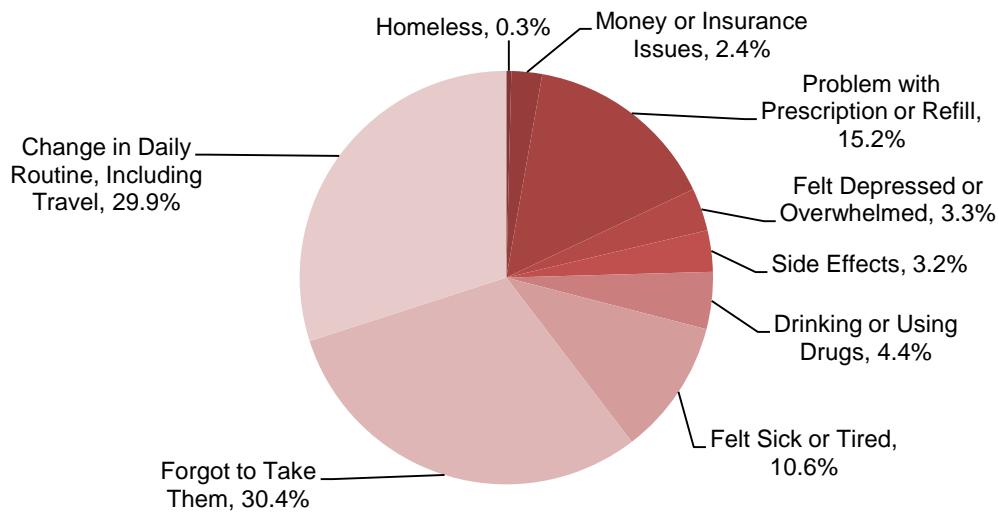
Source: Behavioral and Clinical Surveillance Branch, Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, HHS, Behavioral and Clinical Characteristics of Persons Receiving Medical Care for HIV Infection—Medical Monitoring Project, United States, 2010. HIV Surveillance Special Report 9 (Oct. 2014), [http://www.cdc.gov/hiv/pdf/MMP\\_2010\\_surveillancesummary.pdf](http://www.cdc.gov/hiv/pdf/MMP_2010_surveillancesummary.pdf).

Note: Numbers do not add to 100 percent due to rounding.

A 2010 study of 4,474 HIV-infected adults who were receiving outpatient medical care, including 7 percent who were homeless in the past 12 months and 84 percent with health insurance or other coverage for ART medications, assessed the CD4 T lymphocyte level, the viral level, the main reason that patients were not currently taking ART, among those persons with a history of ART use, and the reasons for missed ART dose, among those missing a dose during the past 12 months. Of the 4,474 patients, 4,034 were currently taking ART and an additional 193 patients had ever taken ART.<sup>23</sup> Although 3,091 of the patients had stage 3 AIDS with documentation of AIDS-defining condition or either a CD4 count of less than 200 cells per microliter or a CD4 percentage of total lymphocytes of less than 14, the lowest CD4 level in the past 12 months was at least 200 for 3,490 patients and 2,683 patients had viral loads during the

past 12 months that were documented as undetectable or less than 200 copies per milliliter.<sup>24</sup> As shown in Figure 2, the study found that 17 percent of patients who had used ART in the past were not currently taking ART because of money or insurance issues.<sup>25</sup> Of the 1,792 patients who had missed a dose within the past 12 months, 0.39 percent missed it because of homelessness, 2.4 percent missed it because of money or insurance issues, and 15.2 percent missed it because of a problem with a prescription or refill (See Figure 3).<sup>26</sup> In 2013, 13,026 of the patients at HCHs were diagnosed with either symptomatic or asymptomatic AIDS.<sup>27</sup>

**Figure 3. Reasons for Missed ART Dose, Among Those Missing a Dose During the Past 12 Months**



Source: Behavioral and Clinical Surveillance Branch, Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, HHS, Behavioral and Clinical Characteristics of Persons Receiving Medical Care for HIV Infection—Medical Monitoring Project, United States, 2010. HIV Surveillance Special Report 9 (Oct. 2014), [http://www.cdc.gov/hiv/pdf/MMP\\_2010\\_surveillance.pdf](http://www.cdc.gov/hiv/pdf/MMP_2010_surveillance.pdf).

Note: Numbers do not add to 100 percent due to rounding.

## CANCER

Cancers are diseases in which abnormal cells divide without control leading to uncontrolled growth of cells that can invade tissues and spread throughout the body.<sup>28</sup> Cancer was the cause of death of 574,743 individuals in 2010.<sup>29</sup> The cancer sites with the ten highest death rates in 2010 are in descending order: lung, female breast, prostate, colon, pancreas, ovary, leukemia, non-Hodgkin lymphoma, liver, and uterus.<sup>30</sup> Various cancers can be treated and individuals' lifespans increased with various methods, such as chemotherapy, radiation, cell and marrow transplantation, stem cell therapy, hormonal therapy, immune checkpoint modulators, cancer treatment vaccines, immune-modifying agents to enhance the body's immune response, monoclonal antibodies that bind to specific antigens only found on the cancer cells, angiogenesis inhibitors that block the growth and survival of new blood vessels, oncolytic virus therapy to

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infect cells with a virus (such as mumps or modified measles) that replicates and kills cancer cells, hyperthermia treatment of tumors with heat, cryosurgery use of extreme cold to destroy tumor cells, and photodynamic therapy combining a photosensitizing agent with a specific type of light to kill cancer cells (See Table 2).<sup>31</sup> Although the health center data do not include incidence of cancer, they do report abnormal breast and cervical findings. In 2013, of the two types of abnormal cell findings reported by HCHs, 3,231 patients were diagnosed with abnormal female breast findings and 5,007 patients were diagnosed with abnormal cervical findings.<sup>32</sup>

**Table 2. Number of Deaths and Treatment Available in the United States for Each Type of Cancer**

Type of Cancer	Number of Deaths (2010)	Types of Treatment
Lung, Tracheal, and Bronchial Cancer	158,318	<u>Non-Small Cell</u> : Surgery; chemotherapy; radiation therapy; targeted therapy; laser therapy; photodynamic therapy; cryosurgery; electroautery <u>Small Cell</u> : Surgery; chemotherapy; radiation therapy; laser therapy; endoscopic stent placement
Colon Cancer	52,622	Surgery; radiofrequency ablation; cryosurgery; chemotherapy; radiation therapy; targeted therapy
Breast Cancer	41,435	Surgery; chemotherapy; sentinel lymph node biopsy followed by surgery; radiation therapy; hormone therapy; targeted therapy
Pancreatic Cancer	36,888	Surgery; radiation therapy; chemotherapy; chemoradiation therapy; targeted therapy
Prostate Cancer	28,561	Surgery; chemotherapy; radiation therapy; hormone therapy; biologic therapy; bisphosphonate therapy
Leukemia	22,569	<u>Adult and Childhood Acute Lymphoblastic Leukemia</u> : Chemotherapy; radiation therapy; chemotherapy with stem cell transplant; targeted therapy <u>Adult Acute Myeloid Leukemia</u> : Chemotherapy; radiation therapy; stem cell transplant; other drug therapy
Liver Cancer	20,305	<u>Adult</u> : Surgery; liver transplant; ablation therapy; embolization therapy; targeted therapy; radiation therapy <u>Childhood</u> : Surgery; chemotherapy; radiation therapy; percutaneous ethanol injection; antiviral treatment
Non-Hodgkin Lymphoma	20,294	<u>Adult</u> : Radiation therapy; chemotherapy; targeted therapy; plasmapheresis; biologic therapy <u>Childhood</u> : Chemotherapy; radiation therapy (in certain patients); high-dose chemotherapy with stem cell transplant; targeted therapy <u>Primary Central Nervous System Lymphoma</u> : Radiation therapy; chemotherapy; steroid therapy <u>Mycosis Fungoides and the Sézary Syndrome</u> : Photodynamic therapy; radiation therapy; chemotherapy; other drug therapy; biologic therapy; targeted therapy
Bladder Cancer	14,731	Surgery; radiation therapy; chemotherapy; biologic therapy
Ovarian Cancer	14,572	<u>Ovarian Epithelial Cancer and Ovarian Germ Cell Tumors</u> : Surgery; radiation therapy; chemotherapy <u>Ovarian Low Malignant Potential Tumors</u> : Surgery; chemotherapy
Esophageal Cancer	14,490	Surgery; radiation therapy; chemotherapy; chemoradiation therapy; laser therapy; electroagulation
Brain Cancer	14,164	<u>Adult Brain Tumors</u> : Surgery; radiation therapy; chemotherapy; targeted therapy <u>Childhood Brain and Spinal Cord Tumors</u> : Surgery; radiation therapy; chemotherapy
Kidney Cancer	13,219	<u>Renal Cell</u> : Surgery; radiation therapy; chemotherapy; biologic therapy; targeted therapy

Transitional Cell Cancer of the Renal Pelvis and Ureter: Surgery		
Multiple Myeloma and Immunoproliferative Cancers	11,428	<p><u>Multiple Myeloma:</u> Chemotherapy; other drug therapy; targeted therapy; high-dose chemotherapy with stem cell transplant; biologic therapy; radiation therapy; surgery</p> <p><u>Chronic Myeloproliferative:</u> phlebotomy; platelet apheresis; transfusion therapy; chemotherapy; radiation therapy; other drug therapy; surgery; biologic therapy; targeted therapy; high-dose chemotherapy with stem cell transplant</p> <p><u>Myelodysplastic Syndromes:</u> <i>Supportive care with one or more of the following:</i> transfusion therapy, erythropoiesis-stimulating agents, antibiotic therapy; <i>Treatment to slow progression to acute myeloid leukemia:</i> lenalidomide, immunosuppressive therapy, azacitidine and decitabine, and chemotherapy</p> <p><u>Myelodysplastic/Myeloproliferative:</u> Chemotherapy; other drug therapy; stem cell transplant; supportive care; targeted therapy</p>
Stomach Cancer	11,390	Surgery; chemotherapy; radiation therapy; chemoradiation; targeted therapy
Skin Cancer	9,154	<p><u>Skin Cancer:</u> Surgery; radiation therapy; chemotherapy; photodynamic therapy; biologic therapy</p> <p><u>Merkel Cell Carcinoma:</u> Surgery; radiation therapy; chemotherapy</p>
Lip, Oral Cavity, and Pharynx Cancer	8,474	<p><u>Lip and Oral Cavity:</u> Surgery; radiation therapy</p> <p><u>Oropharyngeal:</u> Surgery; radiation therapy; chemotherapy</p>
Uterine Cancer	8,402	Surgery; radiation therapy; chemotherapy; hormone therapy; biologic therapy
Cervical Cancer	3,939	Surgery; radiation therapy; chemotherapy; targeted therapy
Laryngeal Cancer	3,691	<u>Hypopharyngeal, Laryngeal, Nasopharyngeal, and Oropharyngeal:</u> Surgery; radiation therapy; chemotherapy
Hodgkin's Lymphoma	1,231	<p><u>Adult:</u> Chemotherapy; radiation therapy; surgery</p> <p><u>Childhood:</u> Chemotherapy; radiation therapy; targeted therapy; surgery; high-dose chemotherapy with stem cell transplant</p>
Other Lymphomas	68	
Other Cancer	64,798	

Source: Nat'l Cancer Inst., NIH, HHS, A to Z List of Cancers, <http://www.cancer.gov/cancertopics/types/alphalist> (last visited Nov. 14, 2014).

## HEPATITIS

Hepatitis can cause acute illness with nausea, malaise, abdominal pain, and jaundice and chronic cirrhosis, end-stage liver disease, or liver cancer.<sup>33</sup>

Cirrhosis is the condition when the liver deteriorates and is unable to function normally due to chronic injury.<sup>34</sup> As cirrhosis progresses, a person may experience fatigue, weakness, itching, loss of appetite, weight loss, nausea and eventually bloating of the abdomen, edema or swelling in the feet, ankles, or legs, angiomas or spiderlike blood vessels on the skin, and jaundice of the eyes and skin.<sup>35</sup>

As the liver fails, complications of cirrhosis often include hypertension of the portal vein carrying blood from many organs to the liver, which may lead to some of the other complications.<sup>36</sup> These include fluid buildup leading to edema and ascites (buildup of fluid in the abdomen), enlarged blood vessels in the esophagus or stomach called esophageal or gastric varices, an enlarged spleen called splenomegaly, and hepatic encephalopathy or mental confusion due to a buildup of toxins that are ordinarily removed by the liver.<sup>37</sup>

Not only are many of these complications painful, but some of these complications can be serious or life-threatening. For example, ascites can lead to spontaneous bacterial peritonitis, an infection that requires immediate medical attention.<sup>38</sup> Varices have thin blood vessel walls and increased blood pressure that are more likely to burst and lead to bleeding in the esophagus or upper stomach, requiring immediate medical attention.<sup>39</sup> The enlarged spleen may retain white blood cells and platelets, reducing the number of these cells and platelets in the blood.<sup>40</sup> Hepatic encephalopathy can cause stupor, requiring a sharp stimulus such as a sharp pain to arouse, or coma.<sup>41</sup>

Additional complications from cirrhosis are metabolic bone diseases that makes bone fractures more likely, such as osteoporosis, gallstones and bile duct stones that often cause pain and recurrent bacterial cholangitis (irritated or infected bile ducts), bruising and bleeding as the liver slows or stops production of the proteins needed for blood clotting, sensitivity to medications' side effects as cirrhosis slows down the liver's ability to filter medications from the blood, type 2 diabetes , liver cancer, immune system dysfunction that leads to an increased chance of infection, and kidney and lung failure.<sup>42</sup> Hepatitis B was the cause of death for 1,792 patients and hepatitis C was the cause of death for 16,627 patients in 2010.<sup>43</sup>

A health care provider may use blood tests to diagnose hepatitis B and C.<sup>44</sup> They use three blood tests to measure the severity of cirrhosis and to calculate the

### Signs & Symptoms of Cirrhosis

- Fatigue
- Weakness
- Itching
- Loss of appetite
- Weight loss
- Nausea
- Bloating of the abdomen from ascites (a buildup of fluid in the abdomen)
- Edema (swelling due to a buildup of fluid) in the feet, ankles, or legs
- Spiderlike blood vessels, called spider angiomas, on the skin
- Jaundice

### Complications of Cirrhosis

- Hypertension of portal vein
- Edema and ascites
- Varices
- Splenomegaly (enlarged spleen)
- Hepatic encephalopathy
- Metabolic bone diseases
- Gallstones and bile duct stones
- Bruising and bleeding
- Sensitivity to medications
- Insulin resistance and type 2 diabetes
- Liver cancer

Model for End-Stage Liver Disease (MELD) score to indicate the likelihood of 90-day survival: bilirubin to test the amount of bile pigment in the blood, creatinine to test kidney function, and international normalized ratio to test the blood's ability to clot.<sup>45</sup> Imaging tests such as ultrasound, CT scans, MRI machines, and elastography can show signs of advanced cirrhosis, including irregularities in the liver surface, gastric varices, and splenomegaly, and detect complications, such as ascites and liver cancer.<sup>46</sup>

Antiviral therapies are available to treat chronic hepatitis B and C.<sup>47</sup> Forty percent of patients with Hepatitis C who receive an older antiviral combination therapy clear their infection while 80 percent can be cured with new FDA-approved medications.<sup>48</sup> Health care providers should treat people with chronic hepatitis B and chronic hepatitis C before they develop severe fibrosis (scarring of the liver) or cirrhosis, but, most people first realize they have chronic hepatitis B or chronic hepatitis C only once they develop the symptoms of cirrhosis.<sup>49</sup> Therefore, it is critical for every person at risk to be tested for hepatitis B and hepatitis C and for every person with chronic hepatitis B or chronic hepatitis C to receive treatment as soon as possible.

Treatments are available to treat or control some of the symptoms and complications of cirrhosis. For example, beta-blockers or nitrate can lower portal blood pressure and some of the side effects discussed earlier — edema, ascites, enlarged esophageal or gastric blood vessels, enlarged spleen, and hepatic encephalopathy.<sup>50</sup> Beta-blockers also can lower the pressure in varices and reduce the likelihood of bleeding.<sup>51</sup> Bisphosphonate medications can improve bone density.<sup>52</sup> Some of the treatments are less effective or more invasive procedures or in-patient hospital procedures are required for other complications. For example, diuretics may treat edema and ascites or a health care provider may have to remove large amounts of ascetic fluid from the abdomen and check for spontaneous bacterial peritonitis and prescribe oral or intravenous (IV) antibiotics to fight infection.<sup>53</sup> Also, a laxative can cleanse the bowel to treat hepatic encephalopathy.<sup>54</sup> Regular dialysis is required for patients who develop hepatorenal syndrome. Surgery may be used to remove gallstones and an endoscopic procedure may be used to remove bile duct stones.<sup>55</sup> Surgery, radiation, and chemotherapy may be used to treat people with liver cancer.<sup>56</sup> In 2013, 1,556 of the patients at HCHs were diagnosed with hepatitis B and 24,277 were diagnosed with hepatitis C.<sup>57</sup>

## CARDIOVASCULAR DISEASE

Cardiovascular disease is a category of diseases that affect the heart, the blood vessels, or both. Cardiovascular disease was the leading cause of death in 2010 with 780,213 deaths, including 597,213 from heart disease, 129,476 from cerebrovascular diseases, 26,634 from hypertension and hypertensive renal disease, 7,230 from atherosclerosis, and 19,184 from other diseases of the circulatory system (e.g., aortic aneurysm).<sup>58</sup>

Heart disease and stroke have similar risk factors and treatment recommendations. High blood pressure, high LDL cholesterol, and smoking are key risk factors for heart disease and stroke and diabetes, obesity, poor diet, physical inactivity, and excessive alcohol use that raises blood pressure are also other medical conditions and factors that can increase the risk for heart disease and stroke.<sup>59</sup> The risk for heart disease can be lowered by checking cholesterol levels, monitoring blood pressure, managing diabetes and closely monitoring blood sugar levels, following doctor's instructions for taking medication to treat high cholesterol, high blood pressure, or diabetes, and working with a doctor to prevent or treat the medical conditions that lead to heart disease.<sup>60</sup> The risk for stroke can also be lowered by following this advice and by also managing heart disease, such as medical treatment or surgery for atrial fibrillation (irregular heartbeat).<sup>61</sup>

Heart Disease and Stroke Treatment	Hypertension Treatment
<ul style="list-style-type: none"><li>● Check cholesterol levels</li><li>● Monitor blood pressure</li><li>● Manage diabetes and closely monitor blood sugar levels</li><li>● Follow instructions for taking medication to treat high cholesterol, high blood pressure, or diabetes</li><li>● Work with doctor to prevent or treat medical conditions that lead to heart disease</li></ul>	<ul style="list-style-type: none"><li>● Antihypertensive medications</li><li>● Weight loss</li><li>● Diet rich in fruits, vegetables, and low-fat dairy foods, includes whole grains, poultry, fish, and nuts, and reduced in total and saturated fat, and sweets and sugar-containing beverages</li><li>● Low salt consumption</li><li>● Aerobic exercise</li></ul>

Hypertension — defined as blood pressure at least 140 mmHg/90 mmHg — has nine identifiable causes, including chronic kidney disease, renovascular disease, thyroid or parathyroid disease, and sodium chloride (salt) consumption.<sup>62</sup>

Most patients with hypertension require two or more antihypertensive medications to achieve the goal blood pressure.<sup>63</sup> Antihypertensive therapy is associated with reductions in stroke by 35-40 percent, heart attack by 20-25 percent, and heart failure by more than 50 percent.<sup>64</sup> Therefore, access to multiple anti-hypertensive medications is important to lower the risk of death from cardiovascular disease. Self-measurements of blood pressure may benefit patients by providing information on response to medication and improving adherence to therapy.<sup>65</sup> A physicians' report to the National Institutes of Health recommends that patients should return for follow-up visits and adjustment of medications monthly once antihypertensive drug therapy is initiated, with more frequent visits necessary for patients with blood pressure at least 160/100 mmHg or complicating comorbid conditions, such as diabetes.<sup>66</sup>

In addition to medications, hypertension can be lowered by certain diets and types of activities. Weight loss of as little as 10 pounds reduces blood pressure in a large proportion of overweight persons.<sup>67</sup> A diet emphasizing fruits, vegetables, and low-fat dairy foods, includes whole grains, poultry, fish, and nuts, and is reduced in fats, red meat, sweets, and sugar-containing beverages with either average or reduced levels of U.S. consumption of sodium reduced blood pressure of hypertensive individuals.<sup>68</sup> In some individuals, limiting sodium consumption to 1,600 milligrams has blood pressure effects similar to single drug therapy.<sup>69</sup> Aerobic exercise is associated with a significant reduction in blood pressure in hypertensive individuals.<sup>70</sup>

In 2013, 25,456 patients at HCHs were diagnosed with heart disease (selected) and 155,805 patients were diagnosed with hypertension.<sup>71</sup>

## DIABETES AND CHRONIC KIDNEY DISEASE

Diabetes is a group of metabolism diseases in which a person has high blood sugar because insulin production is insufficient or the body's cells do not respond properly to insulin. Diabetes is associated with serious health complications, such as heart disease and stroke, blindness, kidney failure, and lower-limb amputation and was the cause of death in 2010 for 69,081 individuals.<sup>72</sup> In 2010, among adults 20 years of age or older, hyperglycemic crisis caused 2,361 deaths.<sup>73</sup>

Diabetes can be treated and managed by healthful eating, regular physical activity, losing excess weight, and taking medication to lower blood glucose levels. Reducing blood glucose levels reduces the risk of developing eye, nerve, and kidney complications.<sup>74</sup> Reducing blood glucose levels too much can result in seizures, unconsciousness, or death and older patients are at high risk for these adverse outcomes. People with diabetes are encouraged to have individual blood glucose targets based on individualized risks and benefits and to monitor blood glucose. In 2013, 76,517 patients at HCHs were diagnosed with diabetes mellitus.<sup>75</sup>

Chronic kidney disease (CKD) is a condition in which a person's kidneys are damaged and cannot filter blood as well, resulting in wastes in the blood remaining in the body and possibly leading to other health problems. Possible health problems include fluid in lungs, anemia, high blood potassium levels dangerous for the heart, brittle bones, malnourishment, and a weakened immune system more prone to infections.<sup>76</sup> Without treatment, the kidneys eventually may stop working. Once kidney failure or end-stage renal disease (ERSD) occurs, a person requires regular dialysis or a kidney transplant.<sup>77</sup> Kidney disease and renal failure caused the death of 50,476 individuals in 2010.<sup>78</sup>

## Co-existing Conditions and Complications of People with Diabetes

- **Hypertension** = **71%** of adults 18 years of age or older with diagnosed diabetes had blood pressure  $\geq 140/90$  mmHg or used prescription medications to lower high blood pressure in 2009-2012
- **High blood LDL cholesterol** = **65%** of adults 18 years of age or older with diagnosed diabetes had blood LDL cholesterol greater than or equal to 100 mg/dl or used cholesterol-lowering medications in 2009-2012
- **Heart disease and stroke** = Cardiovascular disease death rates were about **1.7 times** higher among adults 18 years of age or older with diagnosed diabetes than those without diagnosed diabetes in 2003-2006, adjusting for age, and hospitalization rates for heart attack and stroke were **1.8 times** and **1.5 times** higher among adults 20 years of age or older with diagnosed diabetes than those without diagnosed diabetes in 2010, adjusting for age
- **Blindness and eye problems** = **28.5%** of adults 40 years of age or older with diabetes in 2005-2008 had diabetic retinopathy, damage to the small blood vessels in the retina that may result in loss of vision, and **4.4%** had advanced diabetic retinopathy, with conditions such as clinically significant macular edema and proliferative diabetic retinopathy that could lead to severe vision loss
- **Kidney disease** = **49,677 people** began treatment for kidney failure due to diabetes and **228,924 people** with kidney failure due to diabetes were living on chronic dialysis or with a kidney transplant in 2011
- **Amputations** = About **73,000** non-traumatic lower-limb amputations were performed in adults 20 years of age or older with diagnosed diabetes in 2010

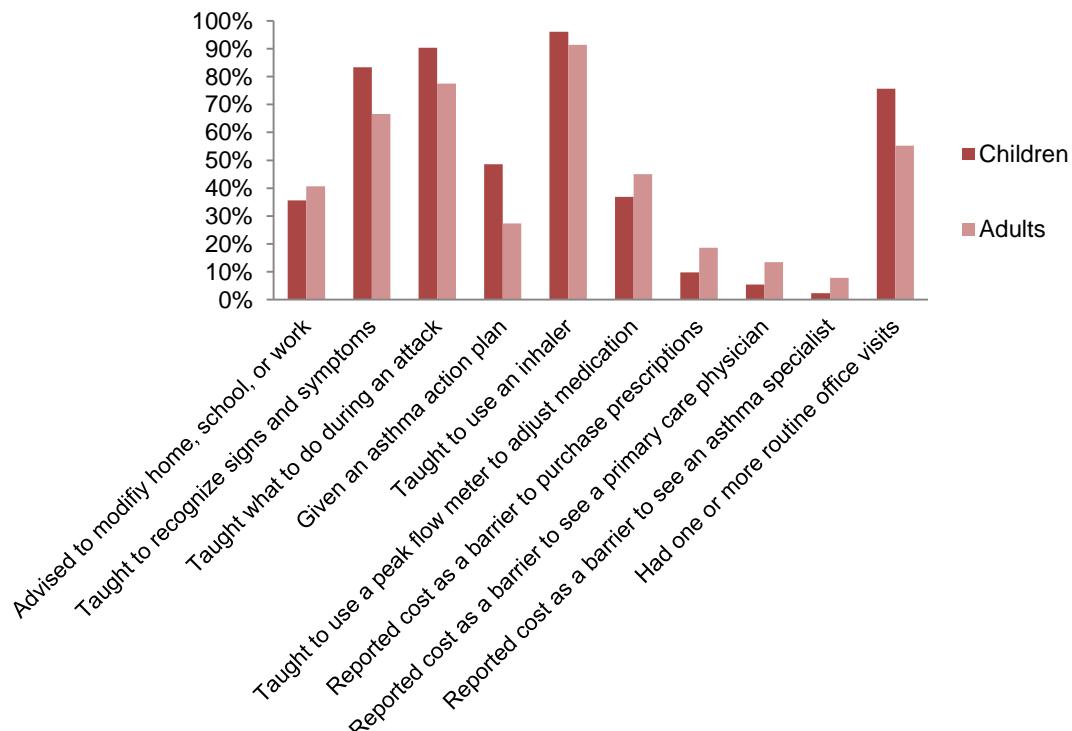
CKD has many risk factors, including diabetes, and treatment is critical. Individuals with diabetes or high blood pressure have a greater risk of developing CKD and ERSD.

Approximately one-third of adults with diabetes and one-fifth of adults with high blood pressure have CKD.<sup>79</sup> Cardiovascular disease, obesity, high cholesterol, lupus, and a family history of CKD are also risk factors.<sup>80</sup> People with early CKD tend not to notice any symptoms so the only way to learn whether a person has CKD is through specific blood and urine tests.<sup>81</sup> Proper treatment can slow down how quickly CKD progresses and minimizes complications.<sup>82</sup> Consultation with a nephrologist has been shown to improve kidney function and delay kidney failure.<sup>83</sup> Due to the serious complications from diabetes to the heart, eyes, nerves, kidneys, and limbs, and the beneficial effect of medications to lower blood sugar levels, all persons with diabetes should have access to medications, health care practitioners, and nutrition counseling.

## ASTHMA

Asthma is a disorder that results in attacks that contract the muscles of the airways, leading to airflow obstruction with symptoms of wheezing, coughing, shortness of breath, and chest tightness. Asthma can be mild or life-threatening. Asthma was the cause of death of 2,858 individuals in 2010.<sup>84</sup> Increased hospitalizations and emergency department visits increase the risk for asthma-caused death.<sup>85</sup> Asthma can be controlled with education on environmental controls, a written asthma action plan providing instructions for daily asthma management and for recognizing and responding to worsening asthma, inhalers, asthma medications, and routine office visits.<sup>86</sup> Therefore, access to asthma education, medications, and routine office visits are important to prevent asthma-related deaths. Yet, in a recent study, only two-thirds of adults and about four-fifths of children were taught to recognize the signs and symptoms and only about one-quarter of adults and half of children were given an asthma action plan (See Figure 4).<sup>87</sup> Moreover, 18 percent of adults and 9 percent of children reported cost as a barrier to purchasing prescriptions, 13 percent of adults and 5 percent of children reported cost as a barrier to seeing a primary care physician, and only 55 percent of adults and 75 percent of children had one or more routine office visits.<sup>88</sup> In 2013, 101,244 of the patients at HCHs were diagnosed with asthma.<sup>89</sup>

**Figure 4. Asthma Treatment Among Children and Adults with Current Asthma in 2010**

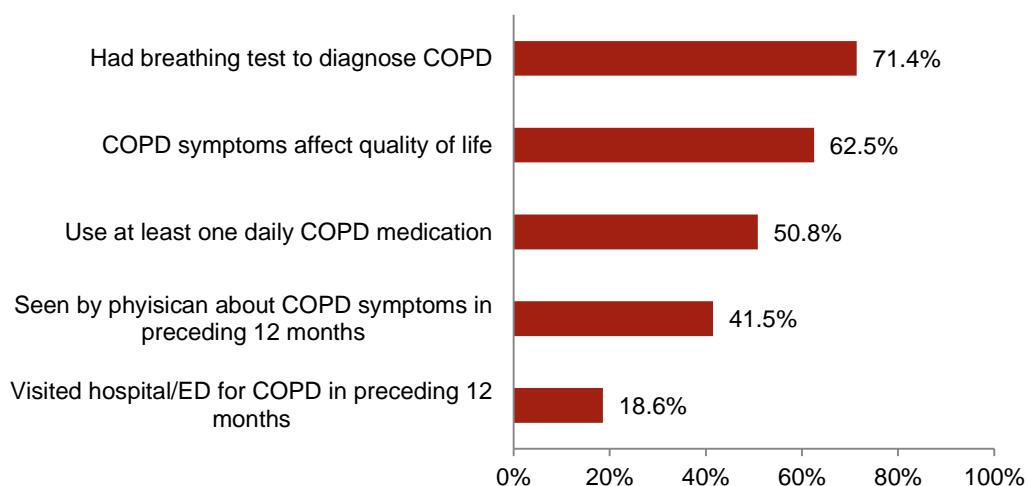


Source: CDC, HHS, Asthma Facts: CDC's National Asthma Control Program Grantees (Jul 2013), available at [http://www.cdc.gov/asthma/pdfs/asthma\\_facts\\_program\\_grantees.pdf](http://www.cdc.gov/asthma/pdfs/asthma_facts_program_grantees.pdf).

## CHRONIC LOWER RESPIRATORY DISEASES

Chronic lower respiratory diseases, include chronic obstructive pulmonary disease (COPD) and asthma. COPD are a group of diseases that cause breathing-related problems, mucus production, airflow blockage, and breathlessness.<sup>90</sup> COPD affects the quality of life for most afflicted individuals (See Figure 5).<sup>91</sup> COPD includes chronic bronchitis and emphysema. Bronchitis is a condition in which the bronchial tubes, which carry air from the trachea to the lungs become inflamed.<sup>92</sup> The symptoms of chronic bronchitis include coughing that may produce large amounts of mucus, wheezing, and chest discomfort.<sup>93</sup> People with chronic bronchitis may also develop acute bronchitis, which results in a persistent cough, cough that may produce mucus, wheezing, low fever, and chest tightness or pain, and if severe, shortness of breath.<sup>94</sup> Emphysema is a COPD involving damage to the air sacs in the lungs, resulting in the body's inability to get the oxygen it needs and making it difficult to catch one's breath.<sup>95</sup> People with emphysema may also have a chronic cough and have trouble breathing during exercise.<sup>96</sup>

**Figure 5. Percentage of COPD-related Health Care Behaviors Among Adults Reporting COPD, Adjusted for Age**



Source: CDC, HHS, Chronic Obstructive Pulmonary Disease Among Adults – United States, 2011, 61 Morbidity & Mortality Weekly Report 938 (Nov. 23, 2012).

Severe COPD also can cause other symptoms, such as swelling of the ankles, feet, or legs and weight loss.<sup>97</sup> Some severe symptoms may require emergency care, such as having a hard time catching his or her breath or talking, lips or fingernails turning blue or gray, which signals low oxygen in the blood, not being mentally alert, or very fast heartbeat.<sup>98</sup> Eighteen percent of the adults reporting COPD in the 2011 Behavioral Risk Factor Surveillance System had visited a

hospital or emergency department for COPD and 41 percent had been seen by a physician about COPD symptoms in the preceding 12 months.<sup>99</sup> Tobacco smoke, indoor and outdoor air pollutants at home and at work, respiratory infections, and genetic factors are all factors in the development and progression of COPD.<sup>100</sup> Chronic lower respiratory diseases were the cause of death of 138,080 individuals in 2010.<sup>101</sup>

Treatment of COPD can alleviate symptoms and decrease the frequency and severity of exacerbations. Treatment options include self-management education and smoking cessation, bronchodilators, inhaled corticosteroids, pulmonary rehabilitation, oxygen, and surgery.<sup>102</sup> Medication can treat coughing and wheezing symptoms.<sup>103</sup> In treating COPD or chronic bronchitis or emphysema, bronchodilators, which are inhaled, and steroids, in either inhaled or pill form, open airways and help clear away mucus.<sup>104</sup> Half of the adults reporting COPD in the 2011 Behavioral Risk Factor Surveillance System COPD use at least one daily COPD medication.<sup>105</sup> Oxygen therapy helps those with COPD or chronic bronchitis and emphysema breathe easier, protect their hearts and other organs from damage, sleep more during the night and improve alertness during the day, and live longer and pulmonary rehabilitation may also be used to improve the well-being of people with chronic bronchitis.<sup>106</sup> Bullectomy to remove air spaces that are created when the lungs' air sacs are destroyed, lung volume reduction surgery to remove damaged tissue from the lungs and help the lungs work better, and lung transplants are three types of surgeries for people with emphysema.<sup>107</sup> An important way to treat acute and chronic bronchitis and emphysema is to remove the source of irritation and damage to the lungs.<sup>108</sup> Flu vaccinations and antibiotics for respiratory infections can reduce the serious problems that people with COPD suffer from these illnesses.<sup>109</sup> In 2013, 15,002 of the patients at HCHs were diagnosed with chronic bronchitis and emphysema.<sup>110</sup> With the vital importance of breathing, it is critical for people with COPD to be able to obtain medications, oxygen therapy, pulmonary rehabilitation, and other treatments.

## OTHER LIFE-THREATENING OR SERIOUS CONDITIONS OR ILLNESSES

In addition to chronic conditions, tens of thousands of homeless patients at health centers, HCHs, and emergency rooms had other life-threatening or serious conditions or illnesses.

Patients at HCHs and community health centers had the following life-threatening or serious conditions or illnesses: tuberculosis, syphilis or other sexually transmitted diseases, dehydration, exposure to heat or cold, dental emergencies, and vision trouble (See Table 3). One percent of the 851,641 patients seen at HCHs in 2013 were diagnosed with the serious, but treatable conditions of tuberculosis and syphilis and other sexually transmitted diseases.<sup>111</sup> Several thousand of the patients seen at HCHs in 2013 were diagnosed with medical conditions associated with being exposed outdoors: dehydration and exposure to heat or cold.<sup>112</sup> HCH

patients also were diagnosed with dental emergencies: 1.3 percent of the patients seen at HCHs in 2013 received emergency dental services and 4.5 percent had oral surgery (extractions and other surgical procedures).<sup>113</sup> Eighty-eight percent of the 618 homeless individuals interviewed at Community Health Centers and HCHs in 2009 had dental problems within the last six months.<sup>114</sup> Many homeless patients at Community Health Centers and HCHs also had eye problems. Thirty-six percent of the homeless individuals interviewed in 2009 had trouble seeing.<sup>115</sup> The other life-threatening or serious physical conditions or illnesses of the 288 homeless patients seen in the emergency rooms included dehydration, electrolyte imbalance, heat fatigue, fainting, convulsions, meningoencephalitis, and dental abscesses and also skin infections, subdural hemorrhage, viral infection, pregnancy problems, blood disorders, chest pain, shortness of breath, spleen injury, and kidney injury.<sup>116</sup>

**Table 3. Number of Patients Diagnosed at Healthcare for the Homeless Clinics with a Life-threatening or Serious Condition and Number of Deaths in the United States from the Condition**

Other Life-threatening or Serious Condition or Illness	Deaths (2010)	Patients Diagnosed (2013)
Tuberculosis	569	1,443
Syphilis and Other Sexually Transmitted Diseases	28 <sup>1</sup>	6,701
Heat-related Deaths	794	1,326 <sup>2</sup>
Hypothermia-related Deaths	1,536	1,326 <sup>2</sup>
Dental Problems and Diseases of the Oral Cavity, Salivary Glands, and Jaws	432	11,276 <sup>3</sup> and 39,079 <sup>4</sup>
Diseases, Disorders, and Other Conditions of the Eye	53	

Sources: Nat'l Ctr. for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Div. of Tuberculosis Elimination, CDC, HHS, Reported Tuberculosis in the United States, 2013 (Oct. 2014), <http://www.cdc.gov/tb/statistics/reports/2013/pdf/report2013.pdf>; S.L. Murphy et al., Nat'l Ctr. for Health Statistics, National Vital Statistics Reports: Deaths: Final Data for 2010, Volume 61, No. 4 (May 8, 2013), available at [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf); CDC, HHS, Number of Heat-Related Deaths, by Sex –National Vital Statistics System, United States, 1999-2010, 61 Morbidity and Mortality Weekly Report 728 (Sept. 14, 2012), available at <http://www.cdc.gov/mmwr/pdf/wk/mm6136.pdf>; E-mail from Dr. Jiaquan Xu, M.D., Division of Vital Statistics, CDC, HHS, to Cheryl Cortemeglia, Esq. (Nov. 10, 2014); CDC, HHS, Number of Hypothermia-Related Deaths, by Sex – National Vital Statistics System, United States, 1999-2011, 61 Morbidity & Mortality Weekly Report 1050 (Jan. 4, 2013), available at <http://www.cdc.gov/mmwr/pdf/wk/mm6151.pdf>; Analysis of 2010 Vital Statistics Data available at Nat'l Ctr. for Health Statistics, Vital Statistics Data Available Online, [http://www.cdc.gov/nchs/data\\_access/Vitalstatsonline.htm](http://www.cdc.gov/nchs/data_access/Vitalstatsonline.htm) (last updated Oct. 8, 2014); Health Resources and Services Administration (HRSA), HHS, 2013 Health Center Data, <http://bphc.hrsa.gov/uds/datacenter.aspx?q=tall&year=2013&state=&fd=ho> (last visited Oct. 8, 2014).

<sup>1</sup> Syphilis only

<sup>2</sup> Exposure to heat or cold

<sup>3</sup> Received emergency dental services

<sup>4</sup> Underwent oral surgery

## **TUBERCULOSIS**

Tuberculosis (TB) is a disease that usually affects the lungs, but it can also affect other parts of the body, such as the brain, spine, or kidneys.<sup>117</sup> TB disease can cause fatigue, malaise, weight loss, fever, night sweats and TB disease of the lungs — the most common site of the disease — can also include coughing, chest pain, and coughing up of blood.<sup>118</sup> TB disease in other parts of the body can cause other severe symptoms as well (See Table 4).

The two most common sites of tuberculosis outside of the lungs are the lymph nodes and in the pleural chest cavity. Lymphatic tuberculosis also causes swollen lymph nodes, and if untreated, fluctuant or infected nodes that drain spontaneously.<sup>119</sup> Pleural tuberculosis can also cause pleuritic chest pain and shortness of breath.<sup>120</sup>

Two serious types of extrapulmonary tuberculosis are bone and joint tuberculosis and meningeal tuberculosis in the central nervous system. Bone and joint tuberculosis most often involves the spine, followed by tuberculosis arthritis in weight-bearing joints and other bones.<sup>121</sup> Individuals with spinal tuberculosis also experience local pain, or paraplegia secondary to cord compression, individuals with tubercular arthritis also experience pain, joint swelling, decreased range of motion, and draining sinuses and abscesses, and individuals with other skeletal tuberculosis also have complications such as carpal tunnel syndrome, tenosynovitis, and facial palsy.<sup>122</sup> Central nervous system tuberculosis includes tuberculosis meningitis and, after an initial phase of malaise, headache, fever, or personality change, causes protracted headache, stiff neck, vomiting, confusion, seizures, and if untreated, stupor, and coma.<sup>123</sup>

Two types of tuberculosis outside the lungs affect the abdominal region: peritoneal tuberculosis and genitourinary tuberculosis. Individuals with peritoneal tuberculosis experience ascites, abdominal pain, and fever.<sup>124</sup> Genitourinary tuberculosis may cause renal disease that causes bleeding and abdominal pain or may affect the reproductive system and cause pelvic pain, infertility, bleeding, and abscesses that may require surgery.<sup>125</sup>

Another type of tuberculosis outside the lungs affects the throat region. Laryngeal tuberculosis can also cause hoarseness, painful swallowing, shortness of breath, enlarged neck lymph nodes, and stridor.<sup>126</sup>

Finally, tuberculous pericarditis may develop secondary to spread from mediastinal lymph nodes, lungs, spine, or sternum, or miliary (disseminated) tuberculosis and may cause chest pain, shortness of breath, ankle edema, cardiomegaly (enlarged heart), tachycardia, and other heart, blood pressure, and blood vessel symptoms.<sup>127</sup>

## Health Care of Homeless Individuals

**Table 4. Tuberculosis Cases By Site of Disease in 2013**

Type of Tuberculosis	Number of Cases	Percent of Cases	Symptoms
Pulmonary and Extrapulmonary	895	9.3%	Fatigue, malaise, weight loss, fever, and night sweats
Pulmonary	6,683	69.7%	Coughing, chest pain, and coughing up of blood
Extrapulmonary	1,994	20.8%	
Pleural	361	17.1%	Pleuritic chest pain and shortness of breath
Lymphatic	753	35.8%	Swollen lymph nodes, and fluctuant lymph nodes that drain spontaneously
Bone and/or Joint	228	10.8%	Local pain, paraplegia secondary to cord compression, pain, joint swelling, decreased range of motion, draining sinuses and abscesses, carpal tunnel syndrome, tenosynovitis, and facial palsy
Genitourinary	101	4.8%	Bleeding, abdominal pain, pelvic pain, infertility, bleeding, and abscesses that may require surgery
Meningeal	107	5.1%	Malaise, headache, fever, personality change, protracted headache, stiff neck, vomiting, confusion, seizures, and if untreated, stupor, and coma
Peritoneal	122	5.8%	Ascites, abdominal pain, and fever
Laryngeal	3	0.1%	Hoarseness, painful swallowing, shortness of breath, enlarged neck lymph nodes, and stridor
Other	431	20.5%	
Missing and/or Unknown	10	0.1%	
Total	9,582	100.0%	

Source: Div. of Tuberculosis Elimination, Nat'l Ctr. for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, HHS, Reported Tuberculosis in the United States, 2013 (Sept. 2014), available at <http://www.cdc.gov/tb/statistics/reports/2013/pdf/report2013.pdf>.

Note: Total number of cases adds to more than 9,582 and total percent adds to more than 100% because a patient may have more than one extrapulmonary site of disease.

Some people infected with TB germs have a latent TB infection, in which they have inactive TB germs in their body that can develop into active TB disease in the future.<sup>128</sup> Some people, including people with HIV infection, people recently exposed to TB, and people with certain medical conditions like diabetes mellitus, chronic renal failure, leukemia, lymphoma, other specific malignancies (e.g., carcinoma of the head or neck), or weight of greater than or equal to 10 percent below ideal body weight, are more likely to develop TB disease once they have TB infection.<sup>129</sup>

TB disease can be treated by taking several drugs for 6 to 12 months.<sup>130</sup> It is important that people with TB disease finish the medicine and take the drugs exactly as prescribed because if they stop taking the drugs too soon, they can become sick again and the remaining germs may become resistant to the drugs.<sup>131</sup> The growing resistance of TB bacteria to medicines has resulted in multi-drug resistant TB that is resistant to two or more of the most important TB medicines and extensively drug-resistant TB that is resistant to nearly all medicines used to treat

## Health Care of Homeless Individuals

TB disease.<sup>132</sup> Therefore, because of the severe symptoms, contagiousness, and increasing resistance of TB bacteria to medicines, people at risk for TB should be tested and all people with latent or active TB disease should have access to TB medications and health care treatment. At least monthly, sputum specimens should be obtained from patients diagnosed with TB disease until two consecutive specimens are negative and patients should be clinically evaluated to identify possible adverse effects of the medications.<sup>133</sup> In 2010, TB was the cause of death of 569 individuals.<sup>134</sup> In 2013, 1,443 of the patients at HCHs were diagnosed with TB.<sup>135</sup>

## SEXUALLY TRANSMITTED DISEASES

Sexually transmitted diseases (STDs) are diseases that can cause chronic pelvic pain, life-threatening ectopic pregnancy, or infertility for those with chlamydia or pelvic inflammatory disease (PID), a complication of chlamydia, gonorrhea, and other diseases,<sup>136</sup> and, in the case of syphilis, can result in damage to internal organs, including the brain, nerves, eyes, heart, blood vessels, liver, bones, and joints, paralysis, numbness, gradual blindness, dementia, and death (See Table 5).<sup>137</sup> Ectopic pregnancies are potentially life-threatening and require prompt evaluation and treatment.<sup>138</sup> In 2010, syphilis was the cause of death of 28 individuals.<sup>139</sup>

**Table 5. Number of Cases and Symptoms and Complications of Four Life-Threatening Sexually Transmitted Diseases/Disorders in 2010**

Disease/Disorder	Reported Cases	Symptoms/Complications
Syphilis	45,457	
Primary	3,537	
Secondary	10,237	Skin rashes and/or mucous membrane lesions, fever, swollen lymph glands, sore throat, hair loss, headaches, weight loss, muscle aches, and fatigue
Early latent	13,604	
Late and late latent	18,079	Damage of the brain, nerves, eyes, heart, blood vessels, liver, bones, and joints, difficulty coordinating muscle movements, paralysis, numbness, gradual blindness, dementia, death
Chlamydia	1,307,893	PID, ectopic pregnancy, and infertility
Gonorrhea	309,341	PID
Pelvic Inflammatory Disease (PID) <sup>1</sup>	113,000	Endometritis, infection and inflammation of the fallopian tubes, tubo-ovarian abscess, peritonitis, infertility, ectopic pregnancy, and chronic pelvic pain

Sources: Div. of STD Prevention, Nat'l Ctr. for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, U.S. HHS, Sexually Transmitted Disease Surveillance 2010 (Nov. 2011), available at <http://www.cdc.gov/std/stats10/surv2010.pdf>; CDC, HHS, Sexually Transmitted Diseases Treatment Guidelines, 2010, 59 Morbidity & Mortality Weekly Report 1 (Dec. 17, 2010), available at <http://www.cdc.gov/std/treatment/2010/std-treatment-2010-rr5912.pdf>; Div. of STD Prevention, Nat'l Ctr. for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, HHS, Syphilis – CDC Fact Sheet, <http://www.cdc.gov/std/syphilis/stdfact-syphilis-detailed.htm> (last updated Jan. 7, 2014).

<sup>1</sup> Women 15 to 44 years old only

Many STDs can be treated or cured. Syphilis, chlamydia, gonorrhea, and PID are treated with antibiotics.<sup>140</sup> In the case of syphilis, a single injection of long-acting penicillin will cure a person who has early active or early latent syphilis and three doses of the drug at weekly intervals is recommended for individuals with late latent syphilis or latent syphilis of unknown duration.<sup>141</sup> Early diagnosis is crucial because treatment will kill the syphilis bacterium and prevent further damage, but it will not repair damage already incurred.<sup>142</sup> A study showed that screening for chlamydial infections can lead to a 60 percent reduction in the incidence of PID.<sup>143</sup> In 2013, 6,701 of the patients at HCHs were diagnosed with syphilis or another STD.<sup>144</sup> Therefore, to prevent these painful, severe, and life-threatening health problems, all people at risk for these diseases should be able to be screened and receive medications and other necessary treatment.

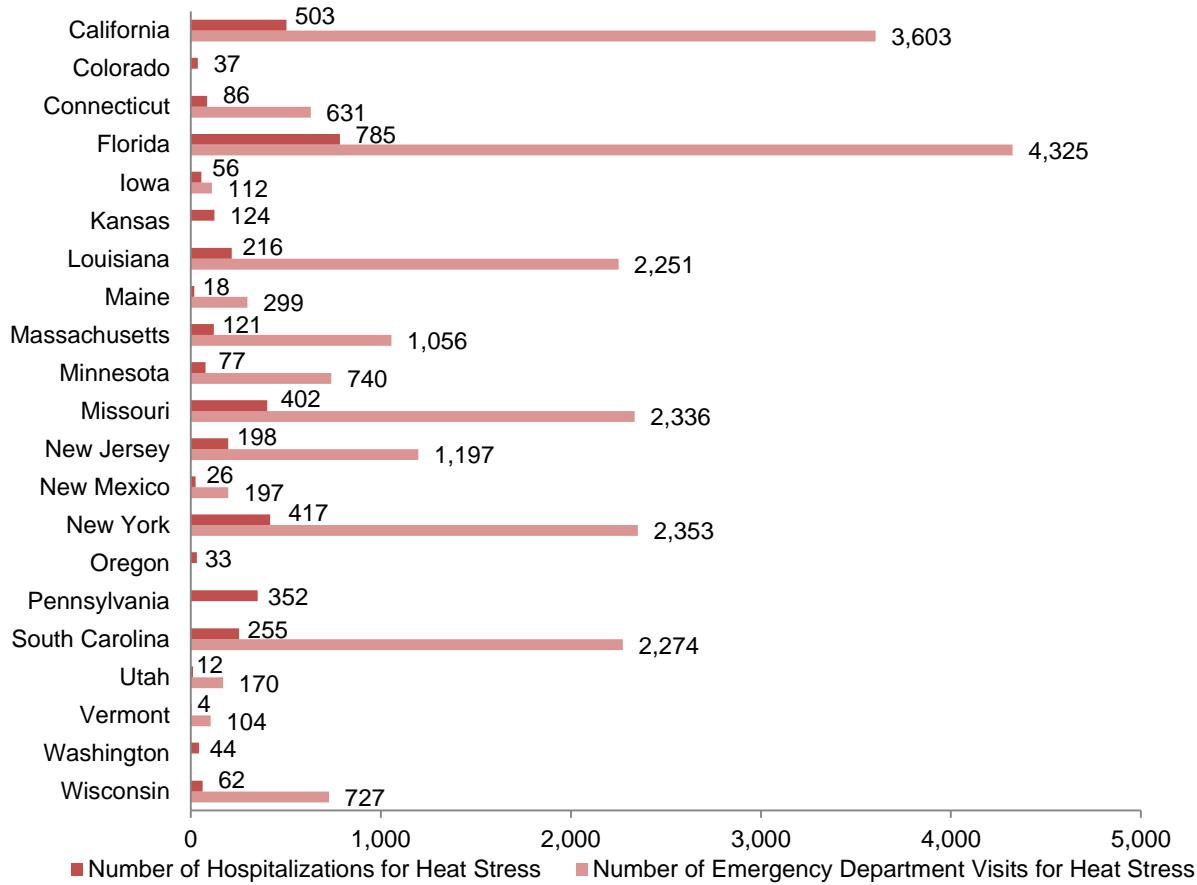
## HEAT-RELATED ILLNESS

Exposure to prolonged periods of high temperature can cause heat-related illnesses, including heat cramps, heat fainting, heat exhaustion, heat stroke, and death.<sup>145</sup> Heat-related illnesses arise from hyperthermia, the elevation of body temperature due to the body's inability to dissipate heat.<sup>146</sup> Heat exhaustion is the most common heat-related illness and results in intense thirst, heavy sweating, weakness, paleness, discomfort, anxiety, dizziness, fatigue, fainting, nausea, vomiting, and headache.<sup>147</sup> Core body temperature can be normal, below normal, or slightly elevated.<sup>148</sup> If unrecognized and untreated, these symptoms can progress to heat stroke, a severe illness clinically defined as core body temperature greater than or equal to 105 degrees Fahrenheit, accompanied by hot, dry skin and central nervous system abnormalities, such as delirium, convulsions, and coma.<sup>149</sup> In 2010, there were 794 heat-related deaths.<sup>150</sup>

All heat-related deaths and illnesses are preventable.<sup>151</sup> Precautions include drinking additional water and increasing the time spent in air-conditioned environments.<sup>152</sup> Children, elderly persons, and individuals without access to air conditioning, including homeless persons, as well as persons with chronic mental disorders or cardiopulmonary disease, and those receiving medications that interfere with salt and water balance, such as diuretics or anticholinergic agents, including antihistamines, are at increased risk for heat-related illness and death.<sup>153</sup> Thousands of individuals visit emergency rooms and are hospitalized for heat illnesses every year. As shown in Figure 6, between May 1 and September 30 of 2010, there were 22,375 instances of heat stress that resulted in visits to emergency rooms in the sixteen states that reported this information.<sup>154</sup> During that time period, there were 3,828 instances of heat stress that were severe enough to require hospitalization in the twenty-one states that reported this information.<sup>155</sup> Everyone should have access to drinking water and air-conditioned environments and health care so that they may be able to avoid heat exhaustion and heat stroke and so that they are not unable or deterred from seeking treatment for these life-threatening heat-related illnesses because of the potential costs. In 2013, 1,290 patients at HCHs were diagnosed with dehydration and 1,326 were diagnosed with exposure to heat or cold.<sup>156</sup>

## Health Care of Homeless Individuals

**Figure 6. Emergency Department Visits and Hospitalizations for Heat Stress in 2010**



Source: Envtl. Health Tracking Branch, Nat'l Ctr. for Envtl. Health, CDC,

National Environmental Public Health Tracking Network, <http://ephtracking.cdc.gov/showHome.action> (last visited Dec. 8, 2014).

## HYPOTHERMIA

Exposure to extreme natural cold also is associated with mortality.<sup>157</sup> It can lead to hypothermia, which may result in death or exacerbate preexisting chronic conditions, such as cardiovascular and respiratory diseases, and because people with conditions that impair regulation of body temperature and people taking certain medications are more susceptible to cold effects.<sup>158</sup> Hypothermia is a lowering of the core body temperature to less than or equal to 95 degrees Fahrenheit.<sup>159</sup> In 2010, hypothermia was the cause or contributing cause of death for 1,536 individuals.<sup>160</sup>

Many different populations are at increased risk for cold-related mortality. Homeless persons and those with inadequate winter clothing or home heating are at increased risk.<sup>161</sup> Elderly people are at greater risk for hypothermia because of medical and socioeconomic factors

such as underlying diseases, social isolation, and physiologic changes, including lack of constriction of blood vessels in response to cold environments, decreased metabolism, and impaired shivering ability.<sup>162</sup> Certain drugs also increase the risk of hypothermia by causing dilation of blood vessels and suppression of the shivering response.<sup>163</sup> Other risk factors include hypothyroidism, dehydration, starvation, immobilizing illness, and sustained contact with materials that promote direct heat loss.<sup>164</sup>

### Hypothermia Hospital Stays

- There were **8,761** Medicare-patient visits to inpatient hospitals, skilled nursing facilities, hospital outpatient clinics, rural clinics, and emergency departments for hypothermia in 2004 and 2005
- **55% of 6,000** Medicare-patient visits to emergency departments for hypothermia resulted in inpatient admission in 2004 and 2005
- Of the hypothermia hospital stays, **half** were for more than approximately **four days** with patients staying in the hospital **up to 91 days**

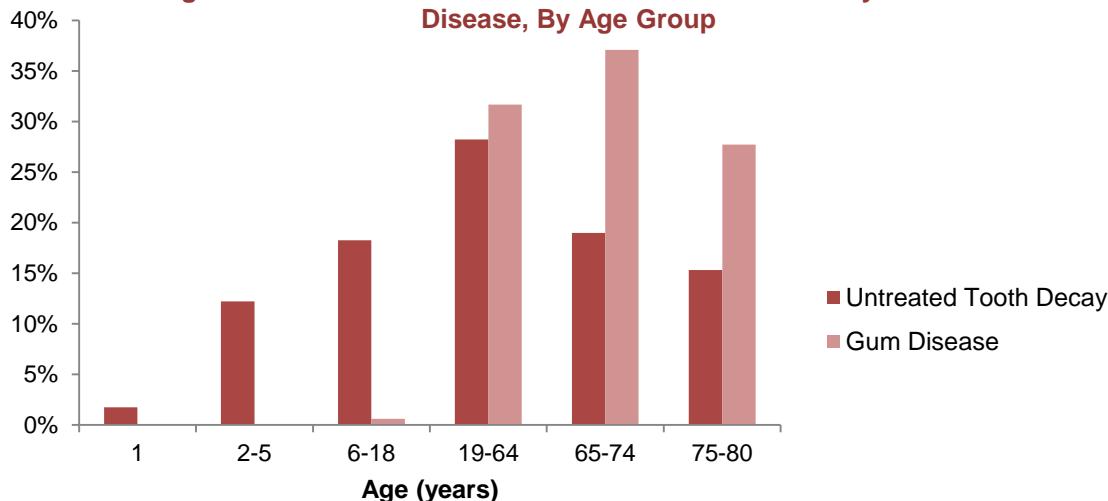
Hypothermia-related mortality can be prevented by early recognition and prompt medical care.<sup>165</sup> Indications of hypothermia include shivering, numbness, fatigue, poor coordination, impaired mental activity, slurred speech, blueness or puffiness of skin, and irrationality.<sup>166</sup> Mild hypothermia (core body temperature of 90 to 95°F) can be treated with passive rewarming using blankets, moderate hypothermia (core body temperature of 82 to 90°F) requires active rewarming with warm intravenous fluids, oxygen, lavage, or immersion baths, and severe hypothermia (core body temperature of less than 82°F) might require active rewarming with cardiopulmonary bypass.<sup>167</sup> Because exposure to cold weather is life-threatening and may impair mental activity and coordination and cause fatigue and numbness and the ability to leave life-threatening conditions, everyone should have access to warm buildings on cold weather days and nights. In 2004 and 2005, more than half of the 6,000 Medicare patients who visited emergency departments for hypothermia were admitted for inpatient care and half of the hospital stays were for more than about four days.<sup>168</sup> In 2013, 1,290 patients at HCHs were diagnosed with dehydration and 1,326 patients at HCHs were diagnosed with exposure to heat or cold.<sup>169</sup>

## DENTAL PROBLEMS

Tooth Decay (dental caries) and gum disease (periodontal disease) are the two biggest dental health problems.<sup>170</sup> Ninety-six percent of adults ages 20-64 have one or more teeth that have *experienced* tooth decay<sup>171</sup> and, as shown in Figure 7, twenty-eight percent of adults ages 19-64 and 25 percent of adults 65 and older (65-80 years of age) have *untreated* tooth decay of one or more teeth.<sup>172</sup> When assessing attachment loss and probing depth at six sites per tooth for

all teeth (except wisdom teeth), nearly half (47 percent) of adults aged 30 years and older have some form of periodontal disease<sup>173</sup> and 31 percent of adults ages 19-64 and 32 percent of adults 65 and older have gum disease.<sup>174</sup>

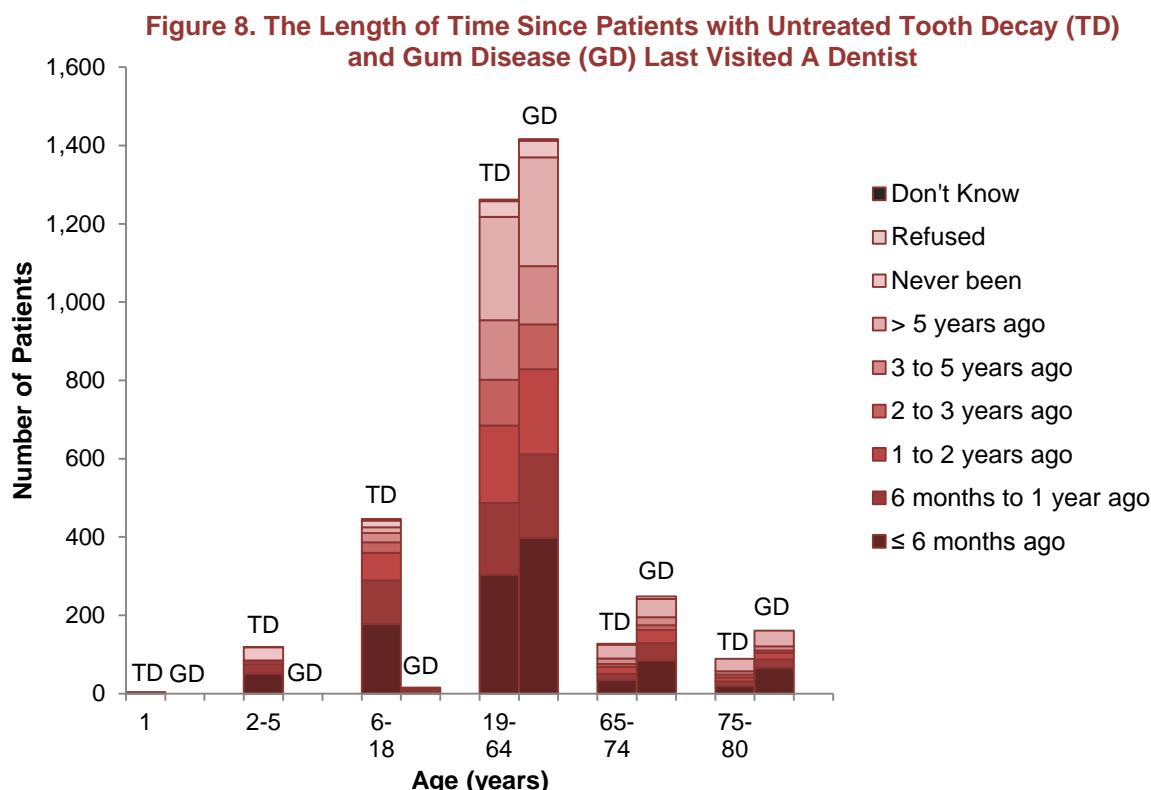
**Figure 7. Percent of Patients with Untreated Tooth Decay or Gum Disease, By Age Group**



Source: Analysis of CDC, National Health and Nutrition Examination Survey, 2011-2012, [http://www.cdc.gov/nchs/nhanes/search/nhanes11\\_12.aspx](http://www.cdc.gov/nchs/nhanes/search/nhanes11_12.aspx) (last updated Nov. 19, 2014).

Once established, dental caries require treatment; a cavity only grows larger and more expensive to repair the longer it remains untreated.<sup>175</sup> Dental caries are formed when bacteria generates acid that dissolves the tooth enamel, and eventually the dentin and the pulp tissue, which is rich in nerves and blood vessels. This produces a toothache and treatment requires a root canal.<sup>176</sup>

Along with regular dental visits and brushing and flossing, two major means exist to prevent tooth decay. Community water fluoridation and dental sealants in the pit and fissure surfaces of children's back teeth prevent tooth decay.<sup>177</sup> Yet, only 69 percent of individuals on public water systems are receiving community water fluoridation.<sup>178</sup> State dental sealant programs provide sealants to only about 8 percent of lower-income children who could receive sealants.<sup>179</sup> Despite the importance of regular dental visits in preventing and treating tooth decay, 61 percent of adults ages 19-64 with untreated tooth decay had not been to the dentist in more than a year with 9 percent last visiting a dentist two to three years ago, 12 percent last visiting a dentist three to five years ago, 20 percent last visiting a dentist more than five years ago, and 3 percent have never visited a dentist (See Figure 8).<sup>180</sup> As shown in Figure 9, eighty-five percent of the adults ages 19-64 with untreated tooth decay who could not get needed dental care could not afford the cost.<sup>181</sup>



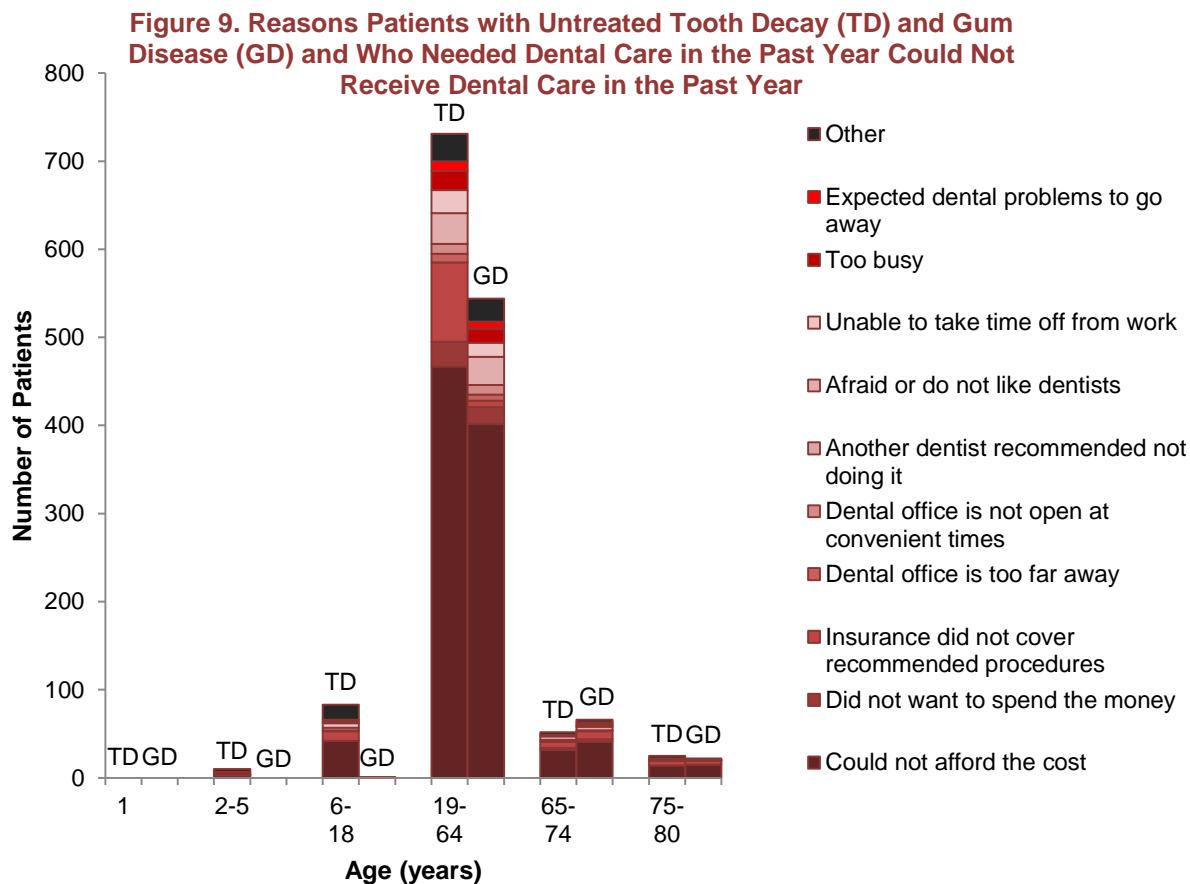
Source: Analysis of CDC, National Health and Nutrition Examination Survey, 2011-2012,  
[http://www.cdc.gov/nchs/nhanes/search/nhanes11\\_12.aspx](http://www.cdc.gov/nchs/nhanes/search/nhanes11_12.aspx) (last updated Nov. 19, 2014)

Periodontal diseases are mainly the result of infections and inflammation of the gums and bone that surround the teeth and progress from gingivitis (swollen and red gums that may bleed) to periodontitis, characterized by gums pulling away from teeth, lost bone, or even loose teeth or teeth that fall out.<sup>182</sup> Periodontal disease is caused by bacteria in the mouth that infect tissue surrounding teeth, resulting in inflammation of the tissue.<sup>183</sup> When bacteria stay on the teeth for a long time, they form a film called plaque, which eventually hardens to tartar.<sup>184</sup>

As with tooth decay, treatment for periodontal disease involves regular dental visits and brushing and flossing. Gingivitis can be controlled and treated with good oral hygiene and regular professional cleaning.<sup>185</sup> Only a dental health professional can remove tartar and stop the periodontal disease process.<sup>186</sup> Treatment for more severe forms of periodontal treatment may include deep cleaning of the tooth root surfaces below the gums, medications, and corrective surgery.<sup>187</sup> The risk for periodontal disease increases due to poor oral hygiene, fillings that have become defective, bridges that no longer fit properly, stress, heredity, crooked teeth, weak immune system, AIDS, diabetes, taking medications that cause dry mouth, and female hormonal changes.<sup>188</sup> Despite the importance of regular dental visits in controlling and treating gum disease, 56 percent of adults ages 19-64 with gum disease had not been to the dentist in more than 1 year with 8 percent last visiting a dentist more than 2 years ago, but not more than 3 years ago, 10 percent last visiting a dentist more than 3 years ago, but not more than 5 years ago, 19

## Health Care of Homeless Individuals

percent last visiting a dentist more than 5 years ago, and 2 percent have never visited a dentist. Eighty-three percent of the adults ages 19-64 with gum disease could not get dental care in the past year because they could not afford the cost.<sup>189</sup>



Source: Analysis of CDC, National Health and Nutrition Examination Survey, 2011-2012, [http://www.cdc.gov/nchs/nhanes/search/nhanes11\\_12.aspx](http://www.cdc.gov/nchs/nhanes/search/nhanes11_12.aspx) (last updated Nov. 19, 2014).

Note: Percentages may add up to more than 100 percent because patients could provide more than one reason.

If left untreated, both tooth decay and periodontal disease can result in death. In 2010, tooth decay, periodontal disease and other dental problems and diseases of the oral cavity, salivary glands, and jaws caused the death of 432 individuals.<sup>190</sup> In 2013, 11,276 individuals at HCHs received emergency dental services and 39,079 had oral surgery.<sup>191</sup> To prevent unnecessary pain and death, all people should have access to dental care to prevent and treat tooth decay and gum disease.

## **EYE DISEASES**

The leading causes of blindness and low vision are age-related eye diseases such as glaucoma, diabetic retinopathy, cataracts, and macular degeneration (See Tables 6 and 7).<sup>192</sup> People with vision loss are more likely to report diabetes, stroke, hearing impairment, falls, cognitive decline, and premature death.<sup>193</sup> In 2010, diseases, disorders, and other conditions of the eye were the cause of death of 53 individuals.<sup>194</sup> The specified causes of death included blindness, glaucoma, degeneration of macula, retinal detachment, retinal artery occlusions or blockages, inflammation of various parts of the eye, and hemorrhage and rupture of part of the eye. Early detection and treatment can prevent much blindness and vision impairment.<sup>195</sup> Thirty-six percent of the 618 homeless individuals interviewed in 2009 had trouble seeing.<sup>196</sup>

**Table 6. Number of Individuals with and Risk Factors and Symptoms of Four Leading Causes of Blindness**

<b>Eye Disease</b>	<b>Number of Individuals</b>	<b>Risk Factors</b>	<b>Symptoms</b>
Glaucoma	2.2 million <sup>1</sup>	Age, eye pressure, blood pressure, thinness of cornea, abnormal optic nerve anatomy	Optic nerve damage and loss of peripheral vision, then central vision, and finally all vision
Diabetic Retinopathy	5.3 million <sup>2</sup>	Diabetes, high blood sugar, high blood pressure, high blood cholesterol	Swelling in retina's blood vessels, blocked retinal blood vessels, and growth of abnormal and fragile blood vessels that leak blood and blur or block vision
Cataracts	20.5 million <sup>1</sup>	Age, diabetes, smoking, prolonged exposure to sunlight	Cloudy or blurry vision, faded colors, glare, halo around lights, poor night vision, double vision or multiple images in one eye, and frequent prescription changes
Age-related Macular Degeneration	1.6 million <sup>3</sup>	Age, family history, smoking, race/ethnicity	Blurred area near the center of vision and blank spots in the central vision

Source: CDC, Vision Health Initiative (VHI): National Data, <http://www.cdc.gov/visionhealth/data/national.htm> (last updated Sept. 28, 2009); Nat'l Eye Inst., NIH, HHS, Facts About Glaucoma, [https://www.nei.nih.gov/Health/glaucoma/glaucoma\\_facts](https://www.nei.nih.gov/Health/glaucoma/glaucoma_facts) (last visited Nov. 13, 2014); Nat'l Eye Inst., NIH, HHS, Facts About Diabetic Eye Disease, <https://www.nei.nih.gov/health/diabetic/retinopathy> (last reviewed June 2012); Nat'l Ctr. for Chronic Disease Prevention & Health Promotion, Div. of Diabetes Translation, Frequently Asked Questions, <http://www.cdc.gov/visionhealth/faq.htm> (last updated Sept. 30, 2009); Nat'l Eye Inst., NIH, HHS, Facts About Cataract, [https://www.nei.nih.gov/health/cataract/cataract\\_facts](https://www.nei.nih.gov/health/cataract/cataract_facts) (last reviewed Sept. 2009); Nat'l Eye Inst., NIH, HHS, Facts About Age-Related Macular Degeneration, [https://www.nei.nih.gov/health/maculardegen/armd\\_facts](https://www.nei.nih.gov/health/maculardegen/armd_facts) (last reviewed July 2013).

<sup>1</sup> 40 years of age or older

<sup>2</sup> 18 years of age or older

<sup>3</sup> 50 years of age or older

Glaucoma is a group of diseases that damage the eye's optic nerve and can result in vision loss and blindness.<sup>197</sup> Eye pressure is a major risk factor along with blood pressure, thinness of the cornea, and abnormal optic nerve anatomy.<sup>198</sup> Glaucoma is detected through a

## Health Care of Homeless Individuals

comprehensive dilated eye exam that includes a visual acuity test of various distances, a visual field test of peripheral vision, a dilated eye exam to examine the retina and optic nerve for signs of damage, tonometry to measure eye pressure, and pachymetry to measure the thickness of the cornea.<sup>199</sup> Without treatment, people with glaucoma slowly lose their peripheral vision and, over time, central vision may decrease until no vision remains.<sup>200</sup> There is no cure for glaucoma and vision lost cannot be restored.<sup>201</sup> Eyedrop medications can reduce the risk of developing glaucoma.<sup>202</sup> Glaucoma treatments include eyedrops or oral medicine, laser trabeculoplasty to help fluid drain out of the eye, and surgery.<sup>203</sup>

**Table 7. Diagnosis and Treatment for Four Leading Causes of Blindness**

Eye Disease	Diagnosis	Treatment
Glaucoma	Comprehensive dilated eye exam, examination of retina and optic nerve damage, visual acuity test of various distances, visual field test of peripheral vision, tonometry to measure eye pressure, and pachymetry to measure cornea thickness	Eyedrop or oral medications, laser trabeculoplasty, surgery
Diabetic Retinopathy	Dilated eye exam	Laser surgery, Vitrectomy
Cataracts	Comprehensive dilated eye exam, visual acuity test, tonometry	New eyeglasses, brighter lighting, anti-glare sunglasses, magnifying lenses, cataract removal surgery
Age-related Macular Degeneration	Comprehensive dilated eye exam, visual acuity test, Amsler grid to detect changes in central vision, fluorescein angiogram to detect leaking blood vessels, and optical coherence tomography to take high-resolution images	Nutritional supplements, anti-VEGF protein injection therapy, laser treatment of select areas of the retina, laser surgery

Source: CDC, Vision Health Initiative (VHI): National Data, <http://www.cdc.gov/visionhealth/data/national.htm> (last updated Sept. 28, 2009); Nat'l Eye Inst., NIH, HHS, Facts About Glaucoma, [https://www.nei.nih.gov/Health/glaucoma/glaucoma\\_facts](https://www.nei.nih.gov/Health/glaucoma/glaucoma_facts) (last visited Nov. 13, 2014); Nat'l Eye Inst., NIH, HHS, Facts About Diabetic Eye Disease, <https://www.nei.nih.gov/health/diabetic/retinopathy> (last reviewed June 2012); Nat'l Ctr. for Chronic Disease Prevention & Health Promotion, Div. of Diabetes Translation, Frequently Asked Questions, <http://www.cdc.gov/visionhealth/faq.htm> (last updated Sept. 30, 2009); Nat'l Eye Inst., NIH, HHS, Facts About Cataract, [https://www.nei.nih.gov/health/cataract/cataract\\_facts](https://www.nei.nih.gov/health/cataract/cataract_facts) (last reviewed Sept. 2009); Nat'l Eye Inst., NIH, HHS, Facts About Age-Related Macular Degeneration, [https://www.nei.nih.gov/health/maculardegen/armd\\_facts](https://www.nei.nih.gov/health/maculardegen/armd_facts) (last reviewed July 2013).

<sup>1</sup> 40 years of age or older

<sup>2</sup> 18 years of age or older

<sup>3</sup> 50 years of age or older

Diabetic retinopathy is an eye disease that affects individuals with diabetes and has four stages that progress from swelling in the retina's blood vessels to blocked retinal blood vessels, and the growth of abnormal and fragile blood vessels that can leak blood resulting in severe vision loss and blindness.<sup>204</sup> Controlling blood sugar, blood pressure, and blood cholesterol can prevent progression of diabetic retinopathy.<sup>205</sup> All people with diabetes are at risk and 40 to 45 percent of individuals diagnosed with diabetes have some stage of diabetic retinopathy.<sup>206</sup>

## **Health Care of Homeless Individuals**

Effective strategies to detect and treat diabetic retinopathy are available, yet, only about two-thirds of the diabetic individuals for whom screening is recommended for diabetic retinopathy receive the annual dilated eye exam screening.<sup>207</sup> People with the last stage of the disease (proliferative retinopathy) can reduce their risk of blindness by 95 percent with timely treatment and appropriate follow-up care.<sup>208</sup> Treatment for proliferative retinopathy involves laser surgery and replacing the vitreous gel part of the eye with a salt solution.<sup>209</sup>

Cataracts are a clouding of the lens in the eye from protein clumping that affects vision.<sup>210</sup> Possible risk factors for cataracts are age, diabetes, smoking, and prolonged exposure to sunlight.<sup>211</sup> Other possible causes are eye surgery, eye injuries, and radiation exposure.<sup>212</sup> Cataracts are detected with a comprehensive eye exam that includes a visual acuity test, a dilated eye exam, and tonometry.<sup>213</sup> Common symptoms include cloudy or blurry vision, faded colors, glare, halo around lights, poor night vision, double vision or multiple images in one eye, and frequent prescription changes.<sup>214</sup> The symptoms of an early cataract can be improved with new eyeglasses, anti-glare sunglasses, brighter lighting, or magnifying lenses.<sup>215</sup> If these methods are not effective, surgery to remove the cloudy lens and replace it with an artificial lens is the only responsive treatment.<sup>216</sup> Cataract removal surgery can restore vision, yet many African-Americans do not receive the surgery to remove cataracts that are a major cause of blindness.<sup>217</sup>

Age-related macular degeneration (AMD) is an eye condition that causes damage to the macula of the eye resulting in a blurred area near the center of vision and eventually a larger blurred area of central vision or blank spots in the central vision.<sup>218</sup> Risk factors for AMD include age, family history, smoking, and race/ethnicity.<sup>219</sup> AMD is detected with a comprehensive dilated eye exam that may include a visual acuity test, a dilated eye exam, an Amsler grid to detect changes in central vision, fluorescein angiogram to detect leaking blood vessels, and optical coherence tomography that takes ultrasound-like high-resolution images of the eyes.<sup>220</sup> Treatment for AMD includes nutritional supplements, anti-VEGF protein injection therapy, laser treatment of select areas of the retina, and laser surgery.<sup>221</sup>

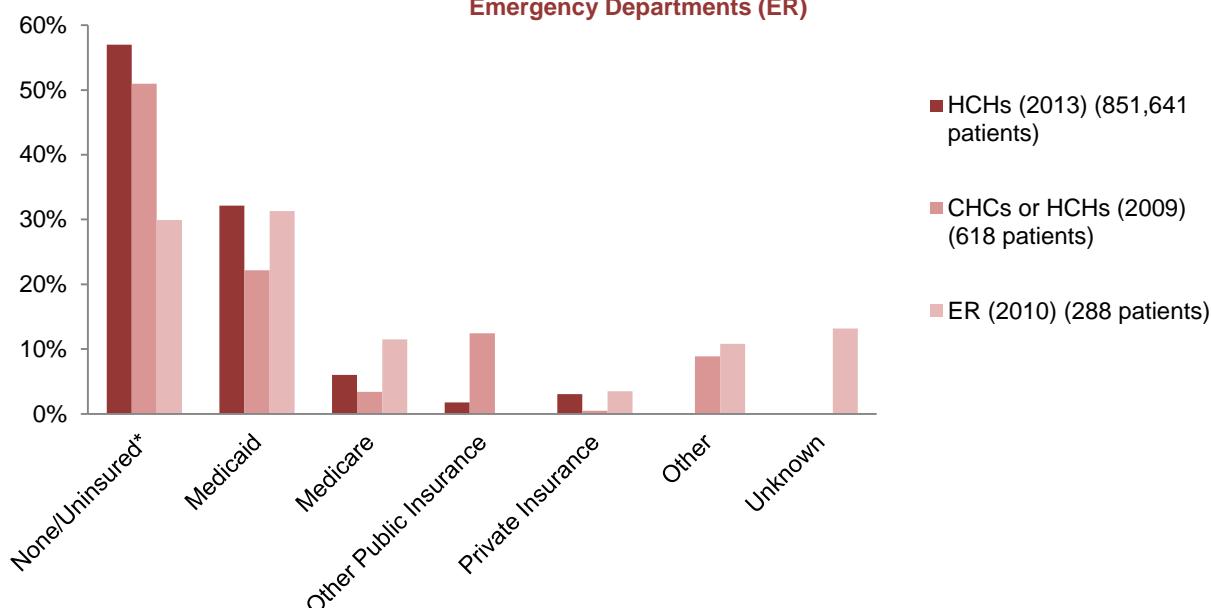
## **ACCESS TO HEALTH CARE**

Although most homeless individuals in the twenty-eight states that have expanded Medicaid pursuant to the ACA likely have health insurance coverage to obtain care for their medical and dental conditions and illnesses, many or most of the hundreds of thousands of homeless individuals in the other twenty-three states likely do not have health insurance coverage and are unable to obtain or obtain delayed medical care, dental care, preventive care, and prescription medications.

## HEALTH INSURANCE

A large proportion of homeless individuals are uninsured, even though they have medical needs. This has remained consistent from 2009 and 2010 to 2013. In 2013, many homeless individuals in almost every state did not have health insurance. Fifty-seven percent of the 851,641 patients at HCHs in 2013 were uninsured (See Figure 10). Thirty-two percent had Medicaid, 6 percent had Medicare, about 2 percent had other public insurance, and 3 percent had private insurance.<sup>222</sup> Exactly half of the 618 clinic homeless individuals interviewed in 2009 were uninsured. Three percent had Medicare insurance, 22 percent had Medicaid insurance, 12 percent had another state plan, about 1 percent had private insurance, and 8 percent reported other insurance.<sup>223</sup>

**Figure 10. Type of Health Insurance of Homeless Patients at Community Health Centers (CHCs), Health Care for the Homeless Program Centers (HCHs), and Emergency Departments (ER)**



Source: Analysis of 2010 National Hospital Medicare Care Survey data.

\*Uninsured for ER patients = patients identified as self-paying (24.0%) or who were not charged care or received charity care (5.9%).

Likewise, 32 percent of the 165 homeless patients diagnosed with a physical medical illness or injury or chronic condition in emergency rooms did not have private insurance, Medicaid, or Medicare and either were not charged for the care or paid for care themselves.<sup>224</sup> The source of payment was unknown or other than these sources for another 20 percent of patients diagnosed with a physical medical illness or injury or chronic condition.<sup>225</sup>

## Health Care of Homeless Individuals

**Table 8. Number and Percent of Homeless and Uninsured Patients and Patients with Income at or Below the Federal Poverty Level in Each State Expanding Medicaid.**

State	Total Patients	Homeless Patients	Homeless Patients (%)	Uninsured Patients	Uninsured Patients (% of Total)	Patients with Income at or Below 100% of FPL (% of Total)
Arizona	438,260	20,312	7.6%	115,560	26.4%	39.7%
Arkansas	163,797	1,340	1.1%	65,362	39.9%	42.3%
California	3,412,961	282,100	14.0%	1,314,234	38.5%	65.1%
Colorado	498,828	30,945	7.2%	182,991	36.7%	66.0%
Connecticut	327,165	13,629	3.7%	72,806	22.3%	59.3%
Delaware	40,274	1,141	4.9%	14,873	36.9%	46.1%
District of Columbia	150,671	10,258	4.4%	26,865	17.8%	58.3%
Hawaii	146,484	9,407	5.3%	28,290	19.3%	63.1%
Illinois	1,153,336	39,685	3.4%	350,751	30.4%	58.9%
Iowa	179,599	6,729	2.5%	57,956	32.3%	38.6%
Kentucky	315,593	12,708	14.8%	107,006	33.9%	45.8%
Maryland	302,229	14,315	8.4%	80,015	26.5%	39.7%
Massachusetts	659,521	33,034	12.3%	123,470	18.7%	48.7%
Michigan	558,059	23,374	5.2%	175,008	31.4%	51.6%
Minnesota	174,593	8,120	7.3%	65,895	37.7%	40.4%
Nevada	70,014	4,507	4.6%	31,608	45.1%	39.6%
New Hampshire	70,884	6,108	22.0%	20,228	28.5%	46.1%
New Jersey	483,113	25,439	15.0%	203,920	42.2%	64.4%
New Mexico	290,202	16,149	9.6%	122,708	42.3%	49.0%
New York	1,689,989	80,373	14.8%	372,673	22.1%	44.5%
North Dakota	31,608	2,009	4.8%	10,105	32.0%	37.2%
Ohio	508,333	28,916	10.7%	156,617	30.8%	39.0%
Oregon	323,148	28,748	14.6%	117,788	36.5%	63.7%
Pennsylvania	680,017	20,628	4.0%	178,182	26.2%	49.6%
Rhode Island	146,040	3,314	1.6%	45,305	31.0%	44.9%
Vermont	132,768	2,049	1.4%	10,146	7.6%	18.7%
Washington	836,637	80,916	14.0%	285,783	34.2%	63.5%
West Virginia	383,485	8,151	0.9%	97,909	25.5%	34.2%
Total	14,167,608	814,404	5.7%	4,434,054	31.3%	54.0%

Source: Analysis of data at Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services, 2013 Health Center Profile, <http://bphc.hrsa.gov/uds/datacenter.aspx?q=d&year=2013&state=AZ#glist> (last visited Oct. 13, 2014).

## Health Care of Homeless Individuals

Starting in 2014, most homeless individuals should have insurance in the 28 states (including the District of Columbia) that have expanded Medicaid coverage provided by the ACA or related waivers to low-income adults.<sup>226</sup> Although the ACA allowed individuals and families with income from 100 percent to 400 percent of the federal poverty line (FPL) to receive subsidies to obtain health insurance through health exchanges and covered individuals with income less than or equal to 138 percent of the FPL (or 133 percent for persons with disabilities), *National Federation of Independent Business v. Sebelius*, 132 S. Ct. 2566 (2012) provided that states were not required to cover people in their state Medicaid program.

**Table 9. Number and Percent of Homeless and Uninsured Patients and Patients with Income at or Below the Federal Poverty Level in Each State Not Expanding Medicaid.**

State	Total Patients	Homeless Patients	Homeless Patients (%)	Uninsured Patients	Uninsured Patients (% of Total)	Patients with Income at or Below 100% of FPL (% of Total)
Alabama	330,401	13,437	3.9%	158,652	48.0%	61.0%
Alaska	100,595	2,268	0.9%	37,101	36.9%	25.8%
Florida	1,128,651	71,708	12.2%	500,379	44.3%	55.9%
Georgia	338,996	14,585	4.7%	173,665	51.2%	53.5%
Idaho	138,434	4,803	2.7%	71,677	51.8%	48.4%
Indiana	364,112	7,788	2.1%	129,216	35.5%	60.8%
Kansas	162,573	6,438	2.6%	76,998	47.4%	50.4%
Louisiana	276,720	14,711	8.4%	103,598	37.4%	59.1%
Maine	182,546	4,426	8.2%	32,469	17.8%	34.8%
Mississippi	299,488	8,415	1.5%	123,631	41.3%	62.7%
Missouri	442,058	25,446	3.6%	150,092	34.0%	57.5%
Montana	97,214	5,992	3.3%	45,728	47.0%	41.0%
Nebraska	64,376	2,386	3.9%	33,537	52.1%	49.9%
North Carolina	454,675	8,506	1.9%	217,354	47.8%	52.3%
Oklahoma	162,871	5,359	2.5%	64,737	39.7%	45.8%
South Carolina	325,015	10,966	2.4%	110,097	33.9%	55.0%
South Dakota	54,743	2,196	4.5%	17,967	32.8%	32.2%
Tennessee	367,754	15,081	5.8%	151,009	41.1%	57.9%
Texas	1,124,022	60,431	6.4%	572,000	50.9%	57.4%
Utah	123,116	6,570	11.5%	70,139	57.0%	57.3%
Virginia	286,604	8,722	5.0%	111,572	38.9%	31.1%
Wisconsin	284,072	10,589	7.0%	65,978	23.2%	51.8%
Wyoming	19,896	1,276	40.6%	8,166	41.0%	36.8%
Total	7,128,932	312,099	4.3%	3,025,762	42.4%	53.8%

Source: Analysis of data at Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services, 2013 Health Center Profile, <http://bphc.hrsa.gov/uds/datacenter.aspx?q=d&year=2013&state=AZ#glist> (last visited Oct. 13, 2014).

## Health Care of Homeless Individuals

Overall, in 2013, in the states expanding Medicaid coverage, 4.4 million of the 14.1 million patients (31%) at Community Health Centers and Healthcare for the Homeless Program Centers were uninsured and 54 percent of the patients had incomes at or below 100 percent of the FPL and in the 23 states not expanding Medicaid coverage, 3.0 million of the 7.1 million patients (42%) at Community Health Centers and Healthcare for the Homeless Program Centers were uninsured and 53.8 percent of the patients had incomes at or below the FPL (See Tables 8 & 9).<sup>227</sup>

**Table 10. Number and Percent of Homeless Patients, Uninsured Patients, and Patients with Income at or Below the Federal Poverty Level at CHCs and HCHs with the Highest Percent of Homeless Patients in Each State Expanding Medicaid.**

State	Grantee	Total Patients	Homeless Patients	Homeless Patients (%)	Uninsured Patients (%)	Patients with Income at or Below 100% of FPL (%)
Arizona	Maricopa County Public Health Services	6,612	6,612	100.0%	78.1%	97.2%
Arkansas	Jefferson Comprehensive Care System	11,414	810	7.1%	53.6%	74.1%
California	Alameda County Health Care Services Agency	10,013	10,013	100.0%	74.3%	97.1%
California	Children's Hosp. & Research Ctr. of Oakland	11,030	11,030	100.0%	20.6%	20.6%
California	Contra Costa County Health Services Dept	20,868	20,868	100.0%	16.7%	76.2%
California	County of Sacramento DOH & Human Services	8,761	8,761	100.0%	91.7%	86.2%
California	County of Solano	9,094	9,094	100.0%	21.0%	80.2%
California	San Francisco Community Clinic Consortium	19,082	19,082	100.0%	69.7%	78.6%
California	Santa Cruz County	6,373	6,373	100.0%	61.1%	89.2%
California	Urban Community Action Projects	1,332	1,332	100.0%	64.2%	94.7%
California	Ventura County Health Services Agency	9,861	9,861	100.0%	55.7%	9.5%
Colorado	Colorado Coalition for the Homeless	13,323	11,847	88.9%	64.1%	93.6%
Connecticut	Staywell Health Care, Inc.	20,576	2,310	11.2%	18.2%	82.2%
Delaware	Southbridge Med. Advisory Council, Inc.	6,915	708	10.2%	35.6%	81.5%
District of Columbia	Family and Medical Counseling Service, Inc.	2,889	348	12.0%	33.1%	84.7%
Hawaii	Waikiki Health	10,386	3,918	37.7%	31.3%	80.3%

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Illinois	Heartland Health Outreach, Inc.	8,570	6,885	80.3%	71.3%	92.2%
Iowa	Primary Health Care, Inc.	28,026	3,857	13.7%	50.2%	66.0%
Kentucky	Kentucky River Foothills Development Council, Inc.	2,152	2,140	99.4%	74.9%	80.5%
Maryland	Health Care for the Homeless	10,072	10,072	100.0%	71.1%	91.0%
Massachusetts	Boston Health Care for the Homeless, Inc.	14,867	14,867	100.0%	18.0%	93.5%
Massachusetts	City of Springfield, Massachusetts	3,535	3,535	100.0%	24.8%	90.1%
Massachusetts	Community Healthlink, Inc.	2,292	2,292	100.0%	31.5%	90.5%
Michigan	Genesee Health System	1,140	499	43.7%	73.7%	89.1%
Minnesota	Hennepin County Community Health Department	4,187	4,187	100.0%	16.5%	98.8%
Nevada	Nevada Health Centers, Inc.	39,898	3,135	7.8%	42.8%	65.9%
New Hampshire	City of Manchester New Hampshire	1,210	1,210	100.0%	80.9%	89.1%
New Jersey	AtlantiCare Health Services	3,787	3,779	99.7%	68.5%	89.9%
New Mexico	Albuquerque Health Care For The Homeless	4,348	4,348	100.0%	85.6%	97.4%
New York	Care for the Homeless	8,009	8,009	100.0%	37.3%	90.8%
New York	Project Renewal, Inc.	11,583	11,583	100.0%	42.9%	84.2%
North Dakota	Family Healthcare Center	13,051	1,569	12.0%	48.8%	72.3%
Ohio	Cincinnati Health Network	9,269	9,269	100.0%	79.3%	96.3%
Ohio	Good Samaritan Hospital	2,624	2,624	100.0%	71.3%	97.0%
Oregon	White Bird Clinic	3,718	3,718	100.0%	98.4%	100.0%
Pennsylvania	Public Health Management Corporation	15,270	7,669	50.2%	35.0%	97.3%
Rhode Island	Thundermist Health Center	41,828	2,148	5.1%	36.3%	61.3%
Vermont	Community Health Centers of Burlington, Inc.	17,632	1,632	9.2%	14.6%	54.6%
Washington	Metropolitan Development Council	1,250	1,250	100.0%	69.0%	95.6%
Washington	Seattle-King County Public Health Dept	19,415	19,415	100.0%	43.3%	92.1%
West Virginia	Valley Health Systems, Inc.	56,553	5,661	10.0%	47.0%	60.3%
Total		492,815	258,320	52.4%	45.0%	74.6%
Source: Analysis of data at Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services, 2013 Health Center Profile, <a href="http://bphc.hrsa.gov/uds/datacenter.aspx?q=d&amp;year=2013&amp;state=AZ#glist">http://bphc.hrsa.gov/uds/datacenter.aspx?q=d&amp;year=2013&amp;state=AZ#glist</a> (last visited Oct. 13, 2014).						

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**Table 11. Number and Percent of Homeless Patients, Uninsured Patients, and Patients with Income at or Below the Federal Poverty Level at CHCs and HCHs with the Highest Percent of Homeless Patients in Each State Not Expanding Medicaid.**

State	Grantee	Total Patients	Homeless Patients	Homeless Patients (%)	Uninsured Patients (%)	Patients with Income at or Below 100% of FPL (%)
Alabama	Birmingham Health Care, Inc.	15,245	2,676	17.5%	66.4%	65.2%
Alaska	Anchorage Neighborhood Health Center	14,477	1,723	11.9%	44.5%	67.3%
Florida	North Broward Hospital District	3,515	3,515	100.0%	97.9%	100.0%
Georgia	St. Joseph's Mercy Care Services	12,796	8,609	67.2%	95.5%	84.0%
Idaho	Terry Reilly Health Services	28,002	2,403	8.5%	61.4%	65.5%
Indiana	Echo Community Health Care	14,568	3,035	20.8%	36.4%	88.0%
Kansas	Health Partnership Clinic, Inc.	9,640	877	9.1%	67.0%	63.1%
Louisiana	New Orleans Health Department	2,197	2,091	95.1%	48.5%	98.3%
Maine	Portland Maine, City of	1,618	1,618	100.0%	67.0%	98.5%
Mississippi	Coastal Family Health Center, Inc.	29,677	3,214	10.8%	49.5%	62.7%
Missouri	Myrtle Hilliard Davis Comprehensive Health Centers, Inc.	29,689	10,710	36.0%	31.6%	95.6%
Montana	Lewis & Clark City-Co. Health Dept.	6,844	841	12.2%	48.3%	62.9%
Nebraska	Charles Drew Health Center, Inc.	10,451	1,568	15.0%	47.2%	95.0%
North Carolina	The C.W. Williams Community Health Center, Inc.	7,908	1,085	13.7%	83.9%	57.3%
Oklahoma	Community Health Centers, Inc.	13,645	2,283	16.7%	68.7%	47.0%
South Carolina	Little River Medical Center, Inc.	25,834	3,542	13.7%	46.4%	64.6%
South Dakota	Prairie Community Health, Inc.	3,880	404	10.4%	10.4%	52.2%
Tennessee	Chattanooga-Hamilton County Health Department	3,412	3,412	100.0%	90.0%	96.5%
Texas	Dallas County Hospital District	9,153	9,153	100.0%	88.0%	95.9%
Texas	Harris County Hospital District	9,869	9,869	100.0%	91.3%	99.3%
Texas	Healthcare for the Homeless--Houston	4,879	4,879	100.0%	96.2%	99.7%

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	Wasatch Homeless Health Care / 4th St. Clinic	4,144	3,981	96.0%	74.0%	97.4%
Utah	Daily Planet	5,513	5,179	93.9%	78.9%	81.4%
Wisconsin	Outreach Community Health Centers, Inc.	11,687	8,149	69.7%	69.7%	91.1%
Wyoming	Community Action of Laramie County, Inc.	663	663	100.0%	92.6%	98.0%
Wyoming	Community Action Partnership of Natrona County	504	504	100.0%	83.3%	97.4%
Total		279,810	95,983	34.3%	59.1%	76.0%

Source: Analysis of data at Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services, 2013 Health Center Profile, <http://bphc.hrsa.gov/uds/datacenter.aspx?q=d&year=2013&state=AZ#glist> (last visited Oct. 13, 2014).

At the health centers in each state that served only homeless patients or that had the largest proportion of homeless patients in the state, a larger percentage of the patients were uninsured in both states expanding and not expanding Medicaid (45% and 59%, respectively) and had incomes less than or equal to 100 percent of the federal poverty level (74% and 76%, respectively) (Compare Tables 8 & 10 and 9 & 11). At the health centers with all of their patients comprising homeless patients in the states not yet expanding Medicaid, a large majority of the homeless patients were uninsured and more than 90 percent had income at or below 100% of the FPL: Florida (97% were uninsured and 100% had income  $\leq$  100% FPL); Maine (67% were uninsured and 98% had income  $\leq$  100% FPL); Tennessee (90% were uninsured and 96% had income  $\leq$  100% FPL); Texas (88-96% were uninsured and 95-99% had income  $\leq$  100% FPL); Wyoming (83-92% were uninsured and 97-98% had income  $\leq$  100% FPL). At the health centers shown in Table 11 where more than half of the patients were homeless, 48 to 95 percent were uninsured and more than four-fifths had income less than or equal to 100 percent of the FPL: Georgia (95% were uninsured and 84% had income  $\leq$  100% FPL); Louisiana (48% were uninsured and 98% had income  $\leq$  100% FPL); Utah (74% were uninsured and 97% had income  $\leq$  100% FPL); Virginia (78% were uninsured and 81% had income  $\leq$  100% FPL); Wisconsin (69% were uninsured and 91% had income  $\leq$  100% FPL). The information in Tables 9 and 11 suggests that hundreds of thousands of homeless people may have income levels that qualified for health insurance coverage yet may be uninsured in the states that did not expand Medicaid coverage.

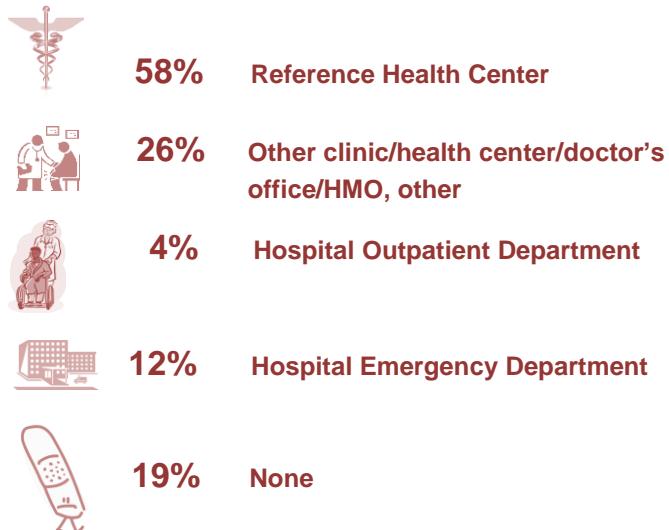
## INACCESSIBLE OR DELAYED CARE

The lack of insurance may result in homeless people not receiving annual physicals, preventive care, and other needed care and only obtaining health care for emergencies. Although a majority of homeless individuals interviewed at the clinics in 2009 reported using a health clinic, health center, or doctor's office as their usual source of care, 16 percent used a hospital outpatient or emergency department as their usual source of care, and 19 percent reported no

## Health Care of Homeless Individuals

usual source of care.<sup>228</sup>

**Figure 11. Usual Source of Health Care**



Source: Lydie A. Lebrun-Harris et al., *Health Status and Health Care Experiences among Homeless Patients in Federally Supported Health Centers: Findings from the 2009 Patient Survey*, 48 Health Services Research 992 (2013).

Health care is inaccessible or delayed for many homeless people. Many of the 618 homeless patients interviewed in 2009 were unable to get needed health care in a timely manner. Despite the homeless individuals' access to a community health center or homeless program center, 43 percent of the 412 homeless individuals who needed medical care in the past year were either unable to receive it or had delayed care.<sup>229</sup> Likewise, 40 percent of the 514 homeless individuals who needed prescriptions were unable to get them or had delayed care and 61 percent of the 333 homeless individuals who needed dental care were unable to receive it or had delayed care.<sup>230</sup>

As the first part of this report highlighted, this inaccessibility of obtaining medical care, prescriptions, and dental care can have preventable, deadly or serious consequences for homeless people who have HIV, cancer, cardiovascular disease, diabetes, asthma, COPD, tuberculosis, sexually transmitted diseases, heat-related illnesses, hypothermia, glaucoma, diabetic retinopathy, cataracts, macular degeneration, tooth decay, or gum disease, many of which are treatable by medications and in-patient hospital care and can be detected before severe effects occur.

### Access to Health Care

- **43%** of homeless individuals who needed **medical care** in the past year that the patient or doctor believed was necessary were unable to receive it or received delayed care
- **40%** of homeless individuals who needed **prescription medicine** in the past year were unable to receive it or experienced delayed care
- **61%** of homeless individuals who needed **dental care**, tests, or treatment that the patient or doctor believed was necessary in the past year were unable to receive it or received delayed care

In addition to not being able to control HIV/AIDS, cardiovascular disease, hepatitis, diabetes, asthma, and COPD chronic conditions with medications or health care services, many homeless individuals are not receiving recommended preventive services to screen for early detection of cancer. The U.S. Preventive Services Task Force recommends that women between the ages of 50 and 74 years old receive mammography breast cancer screening every two years and recommends that all adults between those ages receive colorectal cancer screening of either fecal occult blood testing every year, sigmoidoscopy every five years combined with fecal occult blood testing every three years, or colonoscopy every ten years.<sup>231</sup> Out of the 618 homeless clinic patients interviewed in 2009, only 68 percent of women ages 50 to 74 obtained a mammogram within the past two years and only 40 percent of individuals 50 to 75 years old obtained colorectal cancer screening, including sigmoidoscopy, colonoscopy, or proctoscopy in the past ten years or fecal occult blood test in the past year.<sup>232</sup>

## CONCLUSION

Many or most homeless persons need access to health care because many or most have one or more chronic conditions or other life-threatening or serious conditions. With the expansion of health insurance through the exchanges and with the expansion of Medicaid in the 28 states expanding Medicaid, homeless patients should have better access to timely care and preventive care. In the 23 states not expanding Medicaid coverage, health care access can be improved by expanding health insurance coverage and increasing the number and locations of community health centers and Healthcare for the Homeless Program Centers and the number of medical and dental personnel at existing centers. With these improvements, homeless people can have access to health care for chronic conditions and other life-threatening and serious conditions or illnesses that are not acute emergencies but that can result in death or significant impairment of health.

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<sup>1</sup> Office of Comty. Planning & Dev., HUD, The 2014 Annual Homeless Assessment Report (AHAR) to Congress: Part 1 – Point-in-Time Estimates of Homelessness (2014), *available at* <https://www.hudexchange.info/resources/documents/2014-AHAR-Part1.pdf> [hereinafter HUD, 2014 AHAR Report]; Office of Comty. Planning & Dev., HUD, The 2012 Annual Homeless Assessment Report (AHAR) to Congress: Part 2 – Point-in-Time Estimates of Homelessness (2013), *available at* <https://www.hudexchange.info/resources/documents/2012-AHAR-Volume-2.pdf>.

<sup>2</sup> HUD, 2014 AHAR Report, *supra* note 1.

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> Health Res. & Servs. Admin. (HRSA), HHS, What is a Health Center?, <http://bphc.hrsa.gov/about/index.html> (last visited Nov. 4, 2014).

<sup>7</sup> *Id.*

<sup>8</sup> HRSA, HHS, Health Center Data, <http://bphc.hrsa.gov/healthcenterdatastatistics/index.html> (last visited Nov. 4, 2014).

<sup>9</sup> See CDC & Nat'l Ctr. for Health Statistics, HHS, National Hospital Ambulatory Medical Care Survey: 2010 Emergency Department Summary Tables, [http://www.cdc.gov/nchs/data/ahcd/nhamcs\\_emergency/2010\\_ed\\_web\\_tables.pdf](http://www.cdc.gov/nchs/data/ahcd/nhamcs_emergency/2010_ed_web_tables.pdf) (last visited Nov. 4, 2014); Am. Hosp. Ass'n, TrendWatch Chartbook 2012: Trends Affecting Hospitals and Health Systems (2012) (prepared by Avalere Health), *available at* <http://www.aha.org/research/reports/tw/chartbook/2012chartbook.shtml>.

<sup>10</sup> Analysis of data at HRSA, HHS, 2013 Health Center Data, <http://bphc.hrsa.gov/uds/datacenter.aspx?q=tall&year=2013&state=&fd=ho> (last visited Oct. 8, 2014).

<sup>11</sup> See *supra* note 10.

<sup>12</sup> Analysis of 2010 National Hospital Ambulatory Medical Care Survey data available at Ambulatory & Hosp. Care Statistics Branch, Nat'l Ctr. for Health Statistics, CDC, Ambulatory Health Care Data, <http://www.cdc.gov/nchs/ahcd.htm> (last updated Aug. 7, 2014).

<sup>13</sup> *Id.*

<sup>14</sup> See *supra* note 10.

<sup>15</sup> *Id.*

<sup>16</sup> See *supra* note 12.

<sup>17</sup> Lydie A. Lebrun-Harris et al., *Health Status and Health Care Experiences among Homeless Patients in Federally Supported Health Centers: Findings from the 2009 Patient Survey*, 48 Health Servs. Res. 992 (2013).

<sup>18</sup> *Id.*

<sup>19</sup> CDC, HHS, HIV in the United States: At A Glance (2013), *available at* [http://www.cdc.gov/hiv/pdf/statistics\\_basics\\_factsheet.pdf](http://www.cdc.gov/hiv/pdf/statistics_basics_factsheet.pdf).

<sup>20</sup> Panel on Opportunistic Infections in HIV-Infected Adults and Adolescents. Guidelines for the Prevention and Treatment of Opportunistic Infections in HIV-infected Adults and Adolescents: Recommendations from the Centers for Disease Control and Prevention, the National Institutes of Health, and the HIV Medicine Association of the Infectious Diseases Society of America, *available at* [http://aidsinfo.nih.gov/contentfiles/lvguidelines/adult\\_oi.pdf](http://aidsinfo.nih.gov/contentfiles/lvguidelines/adult_oi.pdf) (last updated Oct. 28, 2014).

<sup>21</sup> CDC, HHS, HIV Basics, <http://www.cdc.gov/hiv/basics/whatishiv.html#panel0> (last updated Feb. 12, 2014).

<sup>22</sup> Panel on Antiretroviral Guidelines for Adults and Adolescents, HHS, Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents, *available at* <http://aidsinfo.nih.gov/ContentFiles/AdultandAdolescentGL.pdf> (last updated May 1, 2014).

<sup>23</sup> Behavioral & Clinical Surveillance Branch, Div. of HIV/AIDS Prevention, Nat'l Ctr. for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, HHS, HIV Surveillance Special Report 9, Behavioral and Clinical Characteristics of Persons Receiving Medical Care for HIV Infection—Medical Monitoring Project, United States, 2010 (2014), *available at* [http://www.cdc.gov/hiv/pdf/MMP\\_2010\\_surveillancesummary.pdf](http://www.cdc.gov/hiv/pdf/MMP_2010_surveillancesummary.pdf).

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> See *supra* note 10.

<sup>28</sup> Nat'l Cancer Inst., NIH, HHS, What is Cancer?, <http://www.cancer.gov/cancertopics/cancerlibrary/what-is-cancer> (last visited Nov. 4, 2014).

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- <sup>29</sup> S.L. Murphy et al., National Center for Health Statistics, *Deaths: Final Data for 2010*, 61(4) National Vital Statistics Reports 1 (May 8, 2013), available at [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf).
- <sup>30</sup> U.S. Cancer Statistics Working Grp., CDC & Nat'l Cancer Inst., HHS, United States Cancer Statistics: 1999–2011 Incidence and Mortality Web-based Report (2014), <http://www.cdc.gov/uscs>.
- <sup>31</sup> Nat'l Cancer Inst., NIH, Types of Treatment, <http://www.cancer.gov/cancertopics/treatment/types-of-treatment> (last visited Nov. 4, 2014); Lindsey Bever, *Woman's Cancer Killed By Measles Virus in Unprecedented Trial*, The Wash. Post, May 15, 2014, <http://www.washingtonpost.com/news/morning-mix/wp/2014/05/15/womans-cancer-killed-by-measles-virus-in-unprecedented-trial>.
- <sup>32</sup> See *supra* note 10.
- <sup>33</sup> CDC, HHS, Viral Hepatitis Surveillance, United States, 2012 [hereinafter Viral Hepatitis Surveillance Report], available at <http://www.cdc.gov/hepatitis/Statistics/2012Surveillance/PDFs/2012HepSurveillanceRpt.pdf>.
- <sup>34</sup> Nat'l Inst. of Diabetes & Digestive & Kidney Diseases, NIH, HHS, NIH Publ'n No. 14-1134, Cirrhosis (2014), <http://www.niddk.nih.gov/health-information/health-topics/liver-disease/cirrhosis/Pages/facts.aspx> [hereinafter Cirrhosis Publication].
- <sup>35</sup> *Id.*
- <sup>36</sup> *Id.*
- <sup>37</sup> *Id.*
- <sup>38</sup> *Id.*
- <sup>39</sup> *Id.*
- <sup>40</sup> *Id.*
- <sup>41</sup> *Id.*
- <sup>42</sup> *Id.*
- <sup>43</sup> Viral Hepatitis Surveillance Report, *supra* note 33.
- <sup>44</sup> Cirrhosis Publication, *supra* note 34.
- <sup>45</sup> *Id.*
- <sup>46</sup> *Id.*
- <sup>47</sup> Viral Hepatitis Surveillance Report, *supra* note 33; Cindy M. Weinbaum et al., Nat'l Ctr. for HIV/AIDS, Viral Hepatitis, STD, & TB Prevention, Div. of Viral Hepatitis, CDC, HHS, Recommendations for Identification and Public Health Management of Persons with Chronic Hepatitis B Virus Infection (Sept. 19, 2008), available at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5708a1.htm>.
- <sup>48</sup> Viral Hepatitis Surveillance Report, *supra* note 33.
- <sup>49</sup> Cirrhosis Publication, *supra* note 34.
- <sup>50</sup> *Id.*
- <sup>51</sup> *Id.*
- <sup>52</sup> *Id.*
- <sup>53</sup> *Id.*
- <sup>54</sup> *Id.*
- <sup>55</sup> *Id.*
- <sup>56</sup> *Id.*
- <sup>57</sup> See *supra* note 10.
- <sup>58</sup> Murphy, *supra* note 29.
- <sup>59</sup> CDC, HHS, Heart Disease Fact Sheet (Aug. 2014), available at [http://www.cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/docs/fs\\_heart\\_disease.pdf](http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/docs/fs_heart_disease.pdf); CDC, HHS, Stroke Fact Sheet (Aug. 2014), available at [http://www.cdc.gov/dhdsp/data\\_statistics/fact\\_sheets/docs/fs\\_stroke.pdf](http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/docs/fs_stroke.pdf); Div. for Heart Disease & Stroke Prevention, Nat'l Ctr. for Chronic Disease Prevention & Health Promotion, CDC, HHS, Behaviors That Increase Risk for Stroke, <http://www.cdc.gov/stroke/behavior.htm> (last updated Mar. 17, 2014).
- <sup>60</sup> CDC, HHS, Heart Disease, Prevention: What You Can Do, [http://www.cdc.gov/heartdisease/what\\_you\\_can\\_do.htm](http://www.cdc.gov/heartdisease/what_you_can_do.htm) (last updated May 9, 2013).
- <sup>61</sup> Div. for Heart Disease & Stroke Prevention, Nat'l Ctr. for Chronic Disease Prevention & Health Promotion, CDC, HHS, Preventing Stroke: Other Medical Conditions, [http://www.cdc.gov/stroke/medical\\_conditions.htm](http://www.cdc.gov/stroke/medical_conditions.htm) (last Mar. 17, 2014).
- <sup>62</sup> Nat'l Heart, Lung, & Blood Inst., NIH, HHS, NIH Publ'n No. 03-5233, The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (Dec. 2003) [hereinafter Blood Pressure Report], available at <http://www.nhlbi.nih.gov/files/docs/guidelines/express.pdf>.

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- <sup>63</sup> *Id.*
- <sup>64</sup> *Id.*
- <sup>65</sup> *Id.*
- <sup>66</sup> *Id.*
- <sup>67</sup> *Id.*
- <sup>68</sup> William M. Vollmer et al., *Effects of Diet and Sodium Intake on Blood Pressure: Subgroup Analysis of the DASH-Sodium Trial*, 135 Annals of Internal Medicine 1019 (2001).
- <sup>69</sup> Blood Pressure Report, *supra* note 62.
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