



## HEALTHCARE WORKFORCE TRANSFORMATION

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### *Compendium of Occupations Critical to Healthcare Workforce Transformation*

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## *Occupational Profile: Behavioral Health Cluster<sup>1,2,3</sup>*

The **Behavioral Health Professions** occupational cluster includes clinical psychologists or psychotherapists, psychiatrists, marriage and family counselors, healthcare social workers, and advanced practice psychiatric nurses.<sup>4</sup> These practitioners diagnose, evaluate, and treat behavioral health conditions, in one-to-one or group settings; a subset treat patients with addictions and related disorders.<sup>5</sup> Psychotherapists and other behavioral health professionals are central to the integration of behavioral and medical care, and to the reduction of mental illness and substance abuse—conditions that disproportionately affect the most underserved users of health services, including Medicaid enrollees. The recognition of the role that behavioral health plays in overall health, and the importance of access to treatment for improving population health outcomes, heightens its value to health systems transformation.

Several specializations within the licensed therapeutic and counseling occupations are covered here. **Clinical, Counseling, and School Psychologists** diagnose and treat mental disorders, learning disabilities, and cognitive, behavioral, and emotional problems, using individual, child, family, and group therapies and, in some cases, design strategies of behavior modification. **Marriage and Family Therapists** treat emotional and mental disorders within the context of marriage and family systems, treating individuals, couples, and families using psychotherapeutic and family systems techniques. **Healthcare Social Workers** provide psychosocial support to individuals and families coping with chronic, acute, or terminal illnesses. They may advise family caregivers, provide patient education and counseling, and make referrals for other services. **Mental Health Counselors** treat individuals and groups to promote emotional and mental health with an emphasis on prevention. They may assist with issues associated with addictions and substance abuse; family, parenting, and marital problems; stress management; self-esteem; and aging. (Data for these four specializations are combined in the pie charts below).

Non-licensed, frontline behavioral health workers assist mentally or emotionally disturbed patients and residents in hospitals, psychiatric facilities, group homes, and other institutions serving individuals with behavioral health issues, including substance use disorders. Working under direction of nursing and medical staff, frontline behavioral health workers may assist with daily living activities, lead patients in educational and recreational activities, or accompany patients to, and from examinations and treatments. Occupations include **Psychiatric Aides**

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<sup>1</sup> Emsi 2016. Because Emsi uses different data and methods for employment and wages estimates, the employment and wage data shown here may vary from the estimates provided by the Rhode Island Department of Labor and Training.

<sup>2</sup> “Behavioral Health Professional Occupations” include the following occupations: Clinical, Counseling, and School Psychologists (19-3031), Marriage and Family Therapists (21-1013), Healthcare Social Workers (21-1022), and Mental Health Counselors (21-1014)

<sup>3</sup> Demographic Data Source: Emsi 2016

<sup>4</sup> Heisler, Elayne J. and Erin Bagalman. 2015. *The Mental Health Workforce: A Primer*. Washington, DC: Congressional Research Service.

<sup>5</sup> U.S. Bureau of Labor Statistics. No date. *Summary Report for 19.3031.02: Clinical Psychologists; 21.1011.00: Substance Abuse and Behavioral Disorder Counselors*. O\*NET OnLine. Accessed from <https://www.onetonline.org/link/summary/21-30311.02>.

(such as Mental Health Aides, Mental Health Workers, and Residential Counselors). Some frontline behavioral health occupations work at a higher skill and knowledge level (sometimes requiring training and credentials in psychology, social work, or other bachelor's level preparation). They coordinate mental healthcare services, assist in patient assessment, monitor and document care, escort patients, identify patients' personal needs, and work with patients on treatment plans. These professionals, who are generally non-licensed but may require certifications in some cases, are often termed **Case Managers**.<sup>6</sup>

**New and Emerging Skills and Roles:** Behavioral health professionals are increasingly working as members of integrated health teams with medical practitioners. The charge for both is “delivering the right level of care, in the right environment, with the right tools, in the most cost-effective manner.”<sup>7</sup> In some cases, behavioral health clinicians are assuming team leadership roles. And they are being asked to take a more direct role in medical care. This can extend to cross-training to enable a therapist, for instance, to coach patients on weight loss or other preventive or disease management strategies. Another strategy emerging in some states is to grant psychologists the right to prescribe medications.

A key emerging role for frontline, non-licensed behavioral health workers is the **Peer Recovery Specialist** (Peer Support Specialist, Peer Counselor, Peer Recovery Coach). They are trained individuals with lived experience of mental illness and/or addiction to alcohol and/or other drugs who provide one-to-one strengths-based support to peers in recovery. They practice in a wide range of settings, including community health and mental health centers, behavioral health programs, substance use treatment facilities, peer-run organizations, community-based organizations, emergency rooms, courts, homeless shelters, and outreach programs. Like Community Health Workers, Peer Recovery Specialists bring the element of added trust and direct experience to patient encounters and may serve as advocates for patients as well as members of community health teams.<sup>8</sup>

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<sup>6</sup> As “Case Manager” is not a standardized role or listed among titles in federal data, no quantitative data are available.

<sup>7</sup> Susan Storti. 2016. Presentation to the Behavioral Health Subcommittee, Rhode Island Health Workforce Transformation Committee, November 3, 2016.

<sup>8</sup> *Rhode Island Peer Recovery Specialist Certification. Study Guide for the Certification Exam*. 2016. Prepared by JSI Research and Training Institute, Inc. for Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals. March 2016. Accessed from [http://www.internationalcredentialing.org/resources/Documents/Peer\\_Study\\_Guide.pdf](http://www.internationalcredentialing.org/resources/Documents/Peer_Study_Guide.pdf). Quantitative labor market data are not available for the Peer Recovery Specialist occupation.

### Behavioral Health Professional Occupations

These occupations include include the following occupations: Psychologists, Social Workers, Mental Health Counselors, and Marriage and Family Therapists

<b>Total Employment 2016</b>	2,623
<b>Total Openings 2016-2026</b>	935
<b>Openings Due to Growth</b>	311
<b>Openings Due to Replacement</b>	624
<b>2016 Average Wage</b>	\$24.76
<b>% of All Professional/Technical HC Occupations<sup>9</sup></b>	7.40%
<b>Share of Occupation Expected to Retire in Next 20 Years<sup>10</sup></b>	53.90%

### Licensure / Certification Requirements: Psychologists<sup>11</sup>

<b>Training Time</b>	Included in Degree
<b>Field Experience</b>	3,000 hours / 2 years supervised, 1,500 hours / 1 year of which is post-doctoral
<b>Certification</b>	Certificate of Professional Qualification (CPQ), National Register of Health Service Providers in Psychology (NRHSPP)
<b>License</b>	Psychologist
<b>Exam</b>	EPPP
<b>Degree</b>	Psy.D., Ed.D, Ph.D

### Licensure / Certification Requirements: Social Workers

<b>Training Time</b>	Included in Degree
<b>Field Experience</b>	3,000 hours post-degree
<b>Certification</b>	None
<b>License</b>	LCSW, LICSW
<b>Exam</b>	ASWB
<b>Degree</b>	M.S.W, D.S.W

<sup>9</sup> Derived from number of jobs in occupation divided by total number of jobs in occupation group (x/35,481).

<sup>10</sup> Percent of incumbent workers age 45 or older

<sup>11</sup> Rhode Island Department of Health

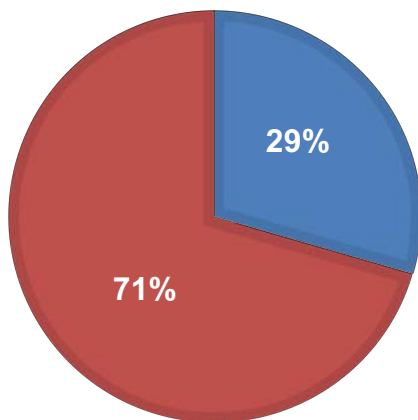
Licensure / Certification Requirements: Mental Health Counselors	
Training Time	Included in degree
Field Experience	1 year supervised internship, 2,000 hours of direct client contact
Certification	None
License	Mental Health Counselor
Exam	National Clinical Mental Health Counselor Examination (NCMHCE) + Board Vote
Degree	Master's Degree, Certificate in Graduate Studies, or Doctoral Degree

Licensure / Certification Requirements: Marriage and Family Therapists	
Training Time	Included in degree
Field Experience	1 year supervised internship, 2,000 hours of direct client contact
Certification	None
License	Marriage and Family Therapist
Exam	Association of Marital and Family Therapy Regulatory Boards (AMFTRB) + Board Vote
Degree	Master's Degree, Certificate in Graduate Studies, or Doctoral Degree

### Behavioral Health Professional Demographics (Combined for the Above Occupations)

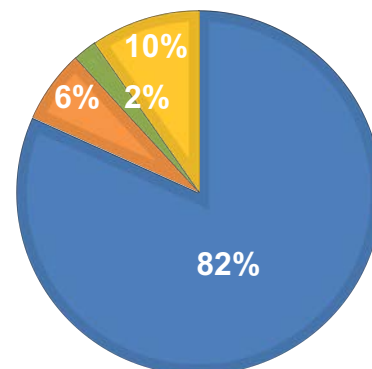
#### GENDER

■ Male ■ Female



#### RACE / ETHNICITY

■ White ■ Hispanic/ Latino  
■ Asian ■ Black or A.A.



<b>Psychiatric Aides</b>	
<b>Total Employment 2016</b>	549
<b>Total Openings 2016-2026</b>	118.7
<b>Openings Due to Growth</b>	-38
<b>Openings Due to Replacement</b>	157
<b>2016 Average Wage</b>	\$15.74
<b>% of All Support HC Occupations<sup>12</sup></b>	2.09%
<b>Share of Occupation Expected to Retire in Next 20 Years<sup>13</sup></b>	44%

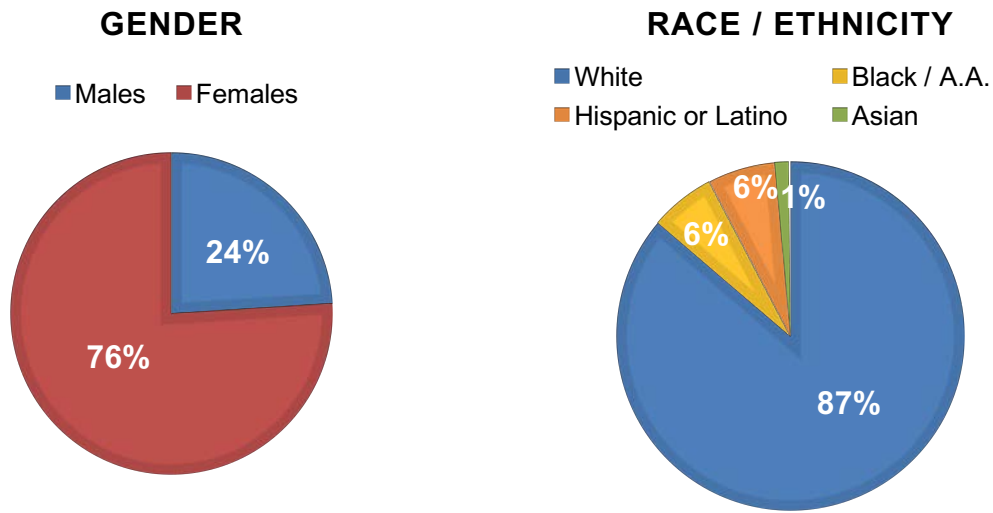
<b>Licensure / Certification Requirements: Psychiatric Aides<sup>14</sup></b>	
<b>Training Time</b>	N/A
<b>Field Experience</b>	N/A
<b>Certification</b>	N/A
<b>License</b>	N/A
<b>Exam</b>	N/A
<b>Degree</b>	N/A

<sup>12</sup> Derived from number of jobs in occupation divided by total number of jobs in occupation group (x/25,674).

<sup>13</sup> % of incumbent workers age 45 or older

<sup>14</sup> Neither Rhode Island Department of Health nor Department of Labor and Training List Psychiatric Aide as a "Licensable Occupation," though a voluntary certification can be obtained through the American Association of Psychiatric Technicians

## Psychiatric Aide Demographics



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### *Occupational Profile: Community Health Workers*

**Community Health Workers** are trusted members of communities who provide outreach, education, advocacy, and support to help bridge community residents with the healthcare system, and to help patients navigate non-medical resources, such as housing or social services. They may also coach individuals to adopt healthy behaviors.<sup>15</sup> This role makes them essential to community-based health strategies, by addressing social determinants of health, reducing health disparities by reaching underserved populations, and helping coordinate care by serving in community health teams with licensed community health professionals. By addressing barriers to healthcare including access, language capacity, transportation, housing, food insecurity, and cultural relevance, CHWs facilitate the community-clinical linkage leading to better health outcomes. CHWs contribute to smarter spending by engaging populations that use the most care—educating them to manage chronic disease conditions, employ preventive behaviors, and follow through on care plans, avoiding unnecessary hospitalization.

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<sup>15</sup> U.S. Bureau of Labor Statistics. No date. *Summary Report for 21-1094.00: Community Health Workers*. O\*Net Online. Accessed from <https://www.onetonline.org/link/summary/21-1094.00>

**New and Emerging Skills and Roles:** Community Health Workers, in Rhode Island and other states, are adopting, or being considered for, more specialized roles geared to specific patient populations, including the aging, incarcerated persons, refugees, and those with chronic health conditions. While their role has historically been associated with community organizations and public health, CHWs—or those with CHW skills and background—are increasingly looked to by healthcare employers to assume roles in patient intake, coaching, and care coordination.

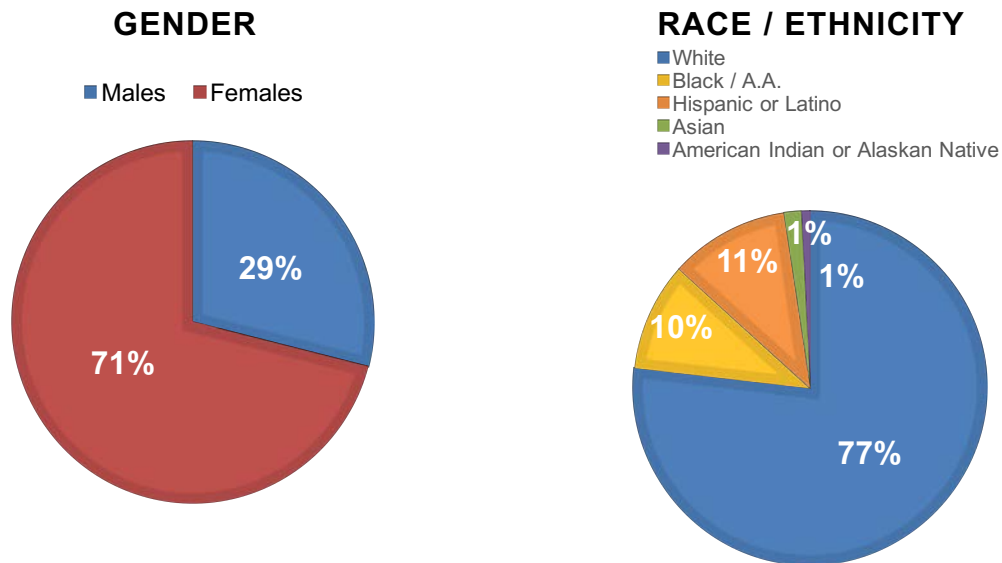
<b>Community Health Workers</b>	
<b>Total Employment 2016</b>	130
<b>Total Openings 2016-2026</b>	41
<b>Openings Due to Growth</b>	13
<b>Openings Due to Replacement</b>	28
<b>2016 Average Wage</b>	\$21.01
<b>% of All Support HC Occupations</b>	.50%
<b>Share of Occupation Expected to Retire in Next 20 Years</b>	45%

<b>Licensure / Certification Requirements: Community Health Workers<sup>16</sup></b>	
<b>Training Time</b>	70 hours
<b>Field Experience</b>	<ul style="list-style-type: none"> <li>• 1,000 hours / 6 months' volunteer or paid experience +</li> <li>• 50 hours supervised</li> </ul>
<b>Certification</b>	Certified Community Health Worker (CCHW)
<b>License</b>	None
<b>Exam</b>	Portfolio Assessment (as of 11/15/17)
<b>Degree</b>	H.S. Diploma/ GED

<sup>16</sup> Rhode Island Certification Board



## Community Health Worker Profession Demographics



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### *Occupational Profile: Dental Cluster*

**Dental Health Occupations** comprise dentists and the technical and assistive personnel who contribute to providing oral health services: dental hygienists, dental lab technicians, and dental assistants. While dentists examine, diagnose, and treat diseases and injuries to the teeth and gums, dental hygienists provide preventive services, cleaning teeth and educating patients about oral care, as well as taking X-rays. Dental assistants facilitate the team’s work, preparing patients for treating, setting up equipment, and maintaining records.<sup>17</sup> The dental occupation cluster is transformative because oral health is a keystone of overall health and has impacts on all aspects of life, including employability, school, and personal success. Improving access to dental services also addresses health disparities; the populations who are underserved have disproportionate levels of dental diseases and cannot fully utilize the traditional delivery system for dental services.<sup>18</sup>

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<sup>17</sup> U.S. Bureau of Labor Statistics. No date. *Summary Report for: 29.1021.00 Dentists; 29.2021.00 Dental Hygienists; 31.9091.00 Dental Assistants*. Accessed from <https://www.onetonline.org/link/summary/29-1021.00>, <https://www.onetonline.org/link/summary/29-2021.00>, and <https://www.onetonline.org/link/summary/31.9091.00>.

<sup>18</sup> Schwarz, Eli and Linda Mann. 2016. *Telehealth in Dentistry: New Dental Workforce Development in Oregon*. Presentation. OROHC Annual Meeting. Portland OR. November 2016.

**New and Emerging Skills and Roles:** Emerging roles—for existing dental occupations, and for newly created ones—are geared to improve access to dental services for disadvantaged populations, while promoting the integration of oral health with primary care and behavioral health. To support access to affordable dental services in community settings outside the dental clinic, several states have authorized Public Health Dental Hygienists to perform preventive care without the direct supervision of a dentist. Similarly, a few states, including Minnesota, Alaska, Maine, and Vermont have established the role of Dental Therapists (aka Advanced Dental Hygienist Practitioners) with an expanded scope of practice permitting diagnosis and restorative treatment.<sup>19</sup>

<b>Dentists</b>	
<b>Total Employment 2016</b>	398
<b>Total Openings 2016-2026</b>	100
<b>Openings Due to Growth</b>	-13
<b>Openings Due to Replacement</b>	113
<b>2016 Average Wage</b>	\$81.52
<b>% of All Professional/Technical HC Occupations</b>	1.12%
<b>Share of Occupation Expected to Retire in Next 20 Years</b>	62%

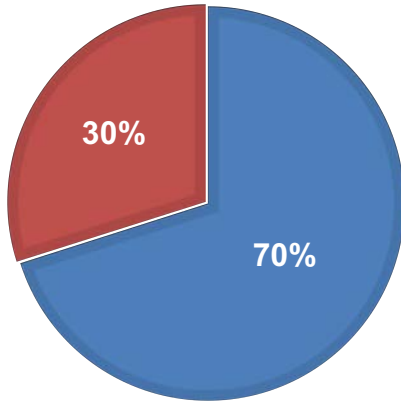
<b>Licensure / Certification Requirements: Dentists</b>	
<b>Training Time</b>	Included in degree
<b>Field Experience</b>	Included in degree
<b>Certification</b>	None
<b>License</b>	Yes
<b>Exam</b>	NBDE
<b>Degree</b>	DDS, DMD

<sup>19</sup> Dunker, Amanda, Esther Krofah, and Frederick Isasi. 2014. *The Role of Dental Hygienists in Providing Access to Oral Health Care*. Washington, DC: National Governors Association.

## Dentist Demographics

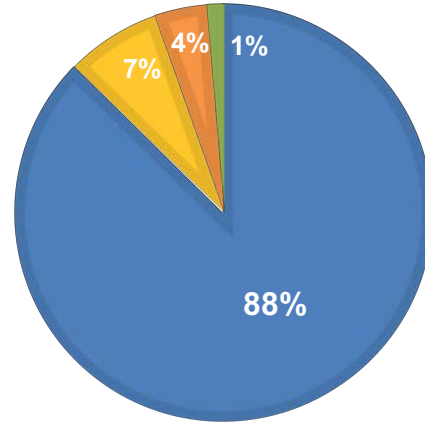
### GENDER

■ Male ■ Female



### RACE / ETHNICITY

■ White ■ Asian ■ Hispanic ■ Black or A. A



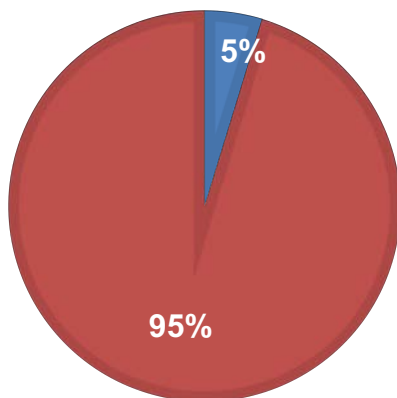
Dental Assistants	
Total Employment 2016	952
Total Openings 2016-2026	324
Openings Due to Growth	76
Openings Due to Replacement	248
2016 Average Wage	\$18.82
% of All Support HC Occupations	3.70%
Share of Occupation Expected to Retire in Next 20 Years	39%

Licensure / Certification Requirements: Dental Assistants	
<b>Training Time</b>	Included in training program
<b>Field Experience</b>	3,500 hours of applicable work experience
<b>Certification</b>	DANB Certified Dental Assistant <sup>20</sup> , CPR
<b>License</b>	None
<b>Exam</b>	DANB-CDA Exam <sup>21,22</sup>
<b>Degree</b>	High School Diploma or Accredited Dental Assistant or Hygienist Program

## Dental Assistant Demographics

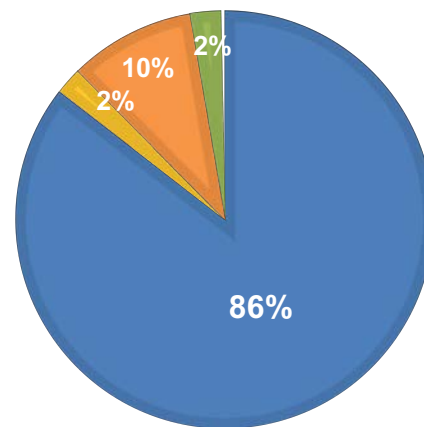
### GENDER

■ Male ■ Female



### RACE / ETHNICITY

■ White ■ Black / A.A. ■ Hispanic or Latino ■ Asian



<sup>20</sup> Certification is only required to perform expanded duties as a Dental Assistant

<sup>21</sup> Dental Assistant National Board (DANB)

<sup>22</sup> Exam is only required for those seeking certification

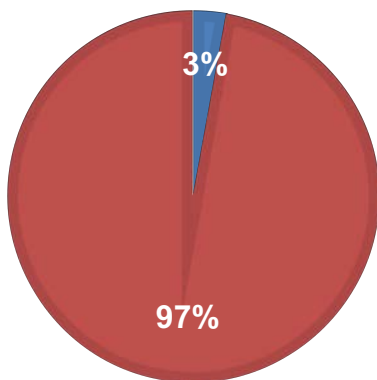
Dental Hygienist	
Total Employment 2016	1,011
Total Openings 2016-2026	217
Openings Due to Growth	44
Openings Due to Replacement	173
2016 Average Wage	\$34.83
% of All Professional/Technical HC Occupations	2.85%
Share of Occupation Expected to Retire in Next 20 Years	53%

Licensure / Certification Requirements: Dental Hygienists	
Training Time	20 hours Continuing Education biennially
Field Experience	Included in degree
Certification	Basic Life and CPR
License	Dental Hygienist
Exam	National Board Dental Hygiene Examination and Northeast Regional Board Examination in Dental Hygiene
Degree	Associate's Degree or Accredited Dental Hygienist Program

## Dental Hygienist Demographics

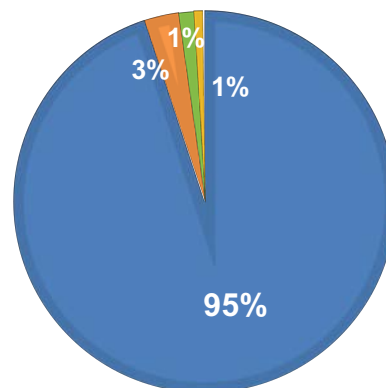
### GENDER

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### RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.



## *Occupational Profile: Dieticians and Nutritionists*

**Dieticians and Nutritionists** plan food and nutrition services, advise patients and families on nutritional principles and dietary plans, and may conduct medical nutritional therapy.<sup>23</sup> Their expertise is vital for improving population health outcomes through community-based strategies, such as school, neighborhood, or employer-based programs to promote good eating habits and address health conditions such as diabetes or obesity.

**New and Emerging Skills and Roles:** Dieticians and nutritionists are assuming consulting and care coordination roles in patient care teams with other health professionals, including physicians, nurses, social workers, and community health workers. The shift to community-based care has also encouraged their involvement in patient-centered medical homes.<sup>24</sup>

<b>Dieticians and Nutritionists</b>	
<b>Total Employment 2016</b>	317
<b>Total Openings 2016-2026</b>	42
<b>Openings Due to Growth</b>	17
<b>Openings Due to Replacement</b>	25
<b>2016 Average Wage</b>	\$30.50
<b>% of All Professional/Technical HC Occupations</b>	0.89%
<b>Share of Occupation Expected to Retire in Next 20 Years</b>	56%

<b>Licensure / Certification Requirements: Dieticians and Nutritionists</b>	
<b>Training Time</b>	Included in degree
<b>Field Experience</b>	900 hours supervised
<b>Certification</b>	None
<b>License</b>	Dietitians / Nutritionist
<b>Exam</b>	Registration Examination for Dietitians
<b>Degree</b>	Baccalaureate or Post-Baccalaureate Degree

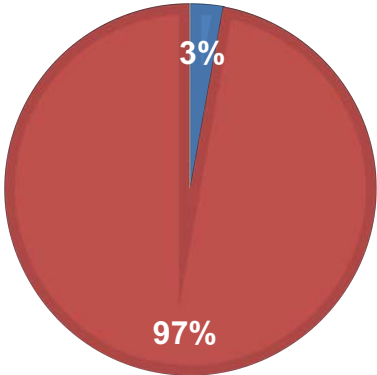
<sup>23</sup> U.S. Bureau of Labor Statistics. No date. *Summary Report for 29-1031.00: Dieticians and Nutritionists*. Accessed from <https://www.onetonline.org/link/summary/29-1031.00>.

<sup>24</sup> Dower, Catherine, Jean Moore, and Margaret Langelier. 2013. "It is Time to Restructure Health Profession Scope-of-Practice Regulations to Remove Barriers to Care." *Health Affairs*. Vol. 32, No. 11. November 2013. 1971-1976; *Health Workforce Projections: Dieticians and Nutritionists*. No date. U.S. Department of Health and Human Services Health Resources and Services Administration, National Center for Health Workforce Analysis. Accessed from <https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/projections/dietitiansnutritionistsapril2015.pdf>.

# Dietitians and Nutritionists Demographics

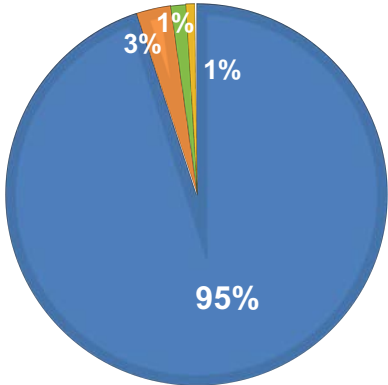
## GENDER

■ Males ■ Females



## RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.



## *Occupational Profile: Direct Care Cluster*<sup>25</sup>

**Direct Care Workers** represent the first line of care in residential facilities for elders and the disabled, as well as for patients in hospitals and homes.<sup>26</sup> Occupations include Certified Nursing Assistants (CNAs), Medication Aides, Home Health Aides, Personal Care Aides, Direct Support Professionals, and Case Managers. Under nursing supervision, **CNAs** assist residents or patients with daily activities such as dressing, eating, bathing, or toileting; monitor vital signs; and observe changes in health or behavior. **Medication Aides** are nursing assistants with additional training and licensing in the administration of medications. **Home Health Aides**, who must be trained and licensed as Certified Nursing Assistants per Rhode Island regulations, also assist clients with activities of daily living and routine healthcare tasks, such as dressing wounds or changing bandages, but in the home setting. They may also assist with non-medical tasks, such as shopping or housekeeping. **Personal Care Aides** perform many of the latter duties in the home setting, but their training and employment is not regulated or licensed. **Direct Support Professionals** (sometimes termed Community Living Specialists) provide personal care and supervision in the home for individuals with developmental disabilities.

**New and Emerging Skills and Roles:** To meet health system goals, Direct Care Workers are being asked to perform at a higher level of skill and care team participation, acquiring specialized knowledge in areas such as geriatrics and behavioral health. Home and community-based caregivers (Home Health Aides, Personal Care Aides, Direct Support Professionals) play a pivotal role in helping consumers remain in their homes rather than institutions. Given the new importance of metrics for patient satisfaction to health employers' bottom line, nursing assistants are asked to take a greater role in meeting outcome targets in patient care and identifying problems when they arise. By playing an expanded role, they enable other care team members, particularly nurses, to "work at the top of their license," contributing to better health outcomes and patient satisfaction. The federal Centers for Medicare & Medicaid Services (CMS) recently mandated that nursing assistants, as well as nutrition services staff, play a role in the patient care planning process.<sup>27</sup>

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<sup>25</sup> Emsi 2016.

<sup>26</sup> Psychiatric Technicians (Mental Health Aides) and related occupations caring for residents of group homes and facilities for treating mental illness and substance use disorders are included in the Behavioral Health occupational cluster, above, although they share some functions and roles with direct care workers in hospitals, homes, and long-term care facilities.

<sup>27</sup> Campbell, Stephen. 2016. "New CMS Rule Mandates Including Nursing Assistants in Care Planning." Blog post. Paraprofessional Healthcare Institute. October 18, 2016. Accessed from <http://phnational.org/blogs/new-cms-rule-mandates-including-nursing-assistants-care-planning>.



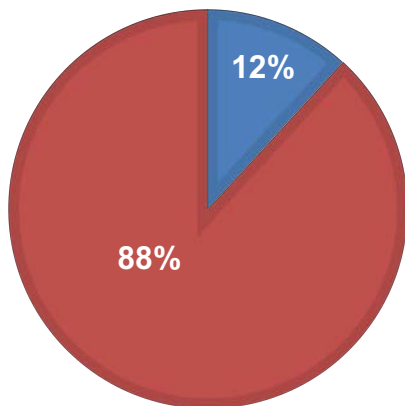
<b>Certified Nursing Assistants</b>	
<b>Total Employment 2016</b>	9,279
<b>Total Openings 2016-2026</b>	2,653
<b>Openings Due to Growth</b>	492
<b>Openings Due to Replacement</b>	2,161
<b>2016 Average Wage</b>	\$13.97
<b>% of All Support HC Occupations</b>	34.14%
<b>Share of Occupation Expected to Retire in Next 20 Years</b>	46%

<b>Licensure / Certification Requirements: Nursing Assistants / HHA</b>	
<b>Training Time</b>	80 hours
<b>Field Experience</b>	20 hours
<b>Certification</b>	State Certificate of Registration
<b>License</b>	None
<b>Exam</b>	Competency Examination as a part of Nursing Assistant Training Program
<b>Degree</b>	High School Diploma

### Certified Nursing Assistant Demographics

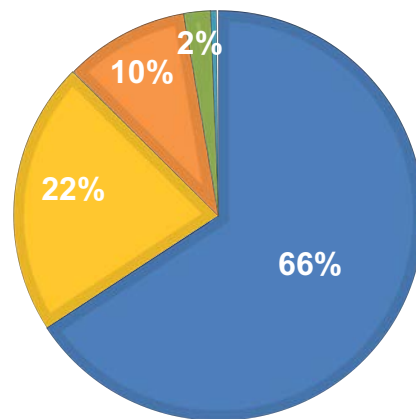
#### GENDER

■ Males ■ Females



#### RACE / ETHNICITY

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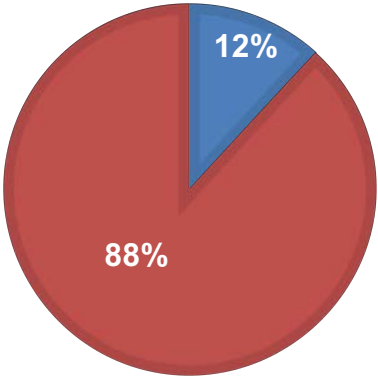


Home Health Aides	
Total Employment 2016	4,076
Total Openings 2016-2026	1,968
Openings Due to Growth	918
Openings Due to Replacement	1,050
2016 Average Wage	\$12.78
% of All Support HC Occupations	15.87%
Share of Occupation Expected to Retire in Next 20 Years	45%

**Home Health Aide Demographics**

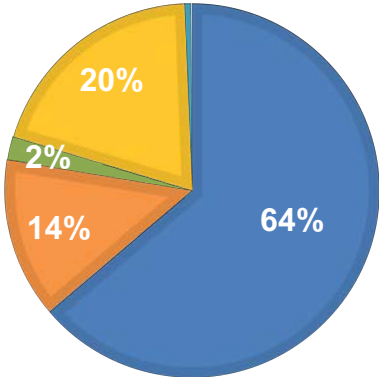
**GENDER**

■ Males ■ Females



**RACE / ETHNICITY**

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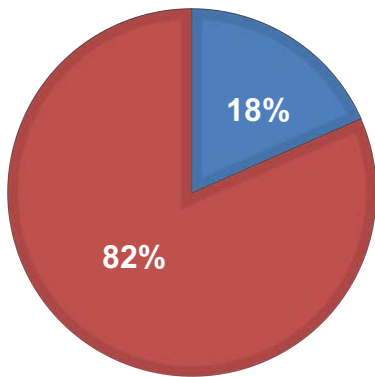


Personal Care Aides	
Total Employment 2016	4,623
Total Openings 2016-2026	1,763
Openings Due to Growth	1,320
Openings Due to Replacement	443
2016 Average Wage	\$11.20
% of All Support HC Occupations	18%
Share of Occupation Expected to Retire in Next 20 Years	52%

### Personal Care Aide Demographics

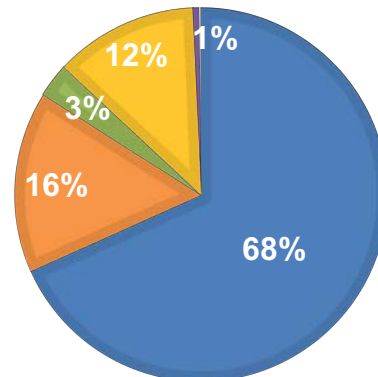
#### GENDER

■ Male ■ Female



#### RACE / ETHNICITY

■ White ■ Hispanic/ Latino  
 ■ Asian ■ Black or A.A.  
 ■ American Indian



## Occupational Profile: EMT and Paramedics

**Emergency Medical Technicians and Paramedics** are trained to be the first responders in emergencies, assessing injuries, administering emergency medical care, and transporting individuals to medical facilities.<sup>28</sup> Their knowledge of emergency medicine is also being put to use to keep people, especially elders, out of the hospital—where costs are higher and patients may be subject to declining health conditions—and to treat in the home setting, where appropriate.

**New and Emerging Skills and Roles:** A number of states, including Rhode Island, are employing EMTs and Paramedics as “Community Paramedics” or “Advanced Practice Paramedics” to assist patients at home, in consultation with doctors or nurses, treating minor injuries or non-urgent health conditions, and assessing whether hospitalization is required. Additional roles include chronic disease monitoring, follow-up discharge care, and medication compliance. Changes in state regulations have enabled EMTs/Paramedics, through programs of “Mobile Integrated Health Care,” to assume expanded roles.

Emergency Medical Technicians and Paramedics	
Total Employment 2016	776
Total Openings 2016-2026	164
Openings Due to Growth	34
Openings Due to Replacement	130
2016 Average Wage	\$17.80
% of All Professional/Technical HC Occupations	2.19%
Share of Occupation Expected to Retire in Next 20 Years	25%

Licensure / Certification Requirements: EMTs	
Training Time	110 hours
Field Experience	24 hours
Certification	EMT-Basic, EMT-Cardiac, CPR
License	Yes
Exam	EMT Cognitive Exam
Degree	High School Diploma/GED/HSE

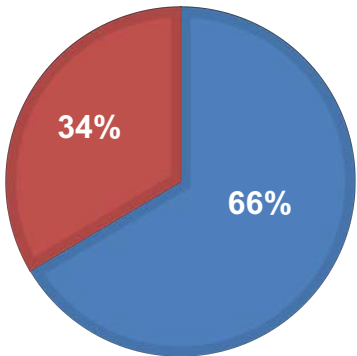
<sup>28</sup> U.S. Bureau of Labor Statistics. No date. *Summary Report for 29-2041.00: Emergency Medical Technicians and Pharmacists*. O\*Net Online. Accessed from <https://www.onetonline.org/link/summary/29-2041.00>.

Licensure / Certification Requirements: Paramedics	
Training Time	1,000-1,200 hours
Field Experience	N/A
Certification	EMT- Paramedic, CPR
License	Yes
Exam	Paramedic Cognitive Exam & NREMT Paramedic Psychomotor Exam
Degree	High School Diploma/GED/HSE

### EMT/Paramedic Demographics

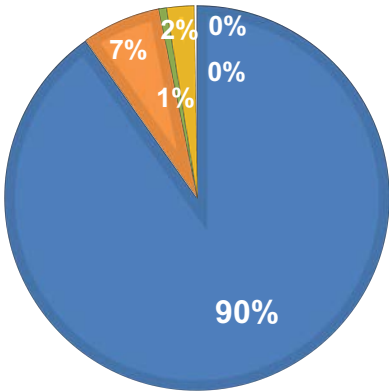
#### GENDER

■ Male ■ Female



#### RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.




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### *Occupational Profile: Health Information and Analytics*

The **Health Information and Analytics** occupational cluster is a broad group of practitioners who are linked by their support for the use of information in transforming health care.<sup>29</sup> In addition to administrative functions such as medical billing and coding, professionals and technicians in this group support the adoption and use of electronic health records (i.e. Implementation Support Specialists; Clinical Informatics Coordinators), ensure the quality and accuracy of health data (Quality Improvement Analyst; Data Quality Manager), designs systems

<sup>29</sup> Due to the lack of standardization for Health Information and Analytics occupations, we do not present quantitative labor market information

for collecting and analyzing data (Data Engineers, Data Architects), and use analytics to interpret population data to improve health outcomes while making care delivery and workflow more efficient (Data Analysts; Informaticists; Practice Workflow Redesign Specialists). The information and analytics occupations are central to the goals of achieving cost savings, improving care transitions, and using evidence from high-risk populations to improve health outcomes.

**New and Emerging Skills and Roles:** The roles of health information specialists and data analysts have evolved rapidly with the adoption of electronic health records, the availability of large datasets on patient population attributes (“big data”), and the need to analyze data to support value-based care. Professionals with dual expertise in health care and informatics have been thrust into the roles described above. Providers using EHRs are employing “scribes” in some cases to enter chart data and free up clinicians to focus on patient care. The drive to transform practices, as in patient-centered medical homes, has heightened the role of professionals using data to redesign the roles and workflow in outpatient care to attain better outcomes. Beyond the roles assumed by trained health information specialists and data analysts, healthcare workers in virtually all occupations are increasingly expected to competently use technology to enter and retrieve patient data, understand its importance and the reasons for using it.

## *Occupational Profile: Licensed Practical Nurses*

**Licensed Practical Nurses** care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, and other settings, usually under the supervision of a registered nurse. They may measure and record vital signs, administer prescribed medications, and provide basic patient care or treatments, such as dressing wounds.

**New and Emerging Skills and Roles:** LPNs are assuming responsibility in some primary-care practices for duties associated with Medical Assistants (patient assessment, history taking, vital signs) but at a higher level of competence based on their licensed status. They may be engaged as patient health coaches as well.

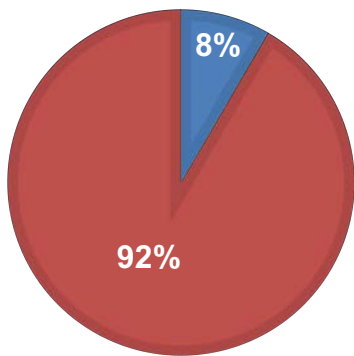
<b>Licensed Practical Nurses</b>	
<b>Total Employment 2016</b>	1,133
<b>Total Openings 2016-2026</b>	524
<b>Openings Due to Growth</b>	173
<b>Openings Due to Replacement</b>	351
<b>2016 Average Wage</b>	\$26.68
<b>% of All Professional/Technical HC Occupations</b>	3.19%
<b>Share of Occupation Expected to Retire in Next 20 Years</b>	55%

Licensure / Certification Requirements: Licensed Practical Nurses	
Training Time	Included in degree
Field Experience	Included in degree
Certification	None
License	Yes
Exam	NCLEX
Degree	High School Diploma/GED/HSE + A diploma or certificate from an approved school of professional nursing

### Licensed Practical Nurse Demographics

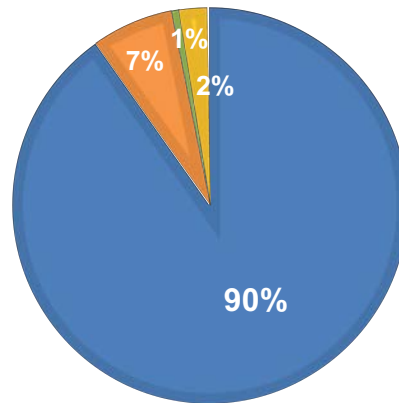
#### GENDER

■ Male ■ Female



#### RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.



## Occupational Profile: Medical Assistant

**Medical Assistants** perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by a physician.

**New and Emerging Skills and Roles:** To support care transformation in patient-centered medical homes, community health centers, and other outpatient settings, Medical Assistants are assuming expanded roles as health coaches, health navigators, patient care advocates, medical scribes, and patient panel managers. In some practices and clinics, they are assisting with care coordination and care management for high-risk patient populations.

Medical Assistants	
<b>Total Employment 2016</b>	2,929
<b>Total Openings 2016-2026</b>	952
<b>Openings Due to Growth</b>	300
<b>Openings Due to Replacement</b>	652
<b>2016 Average Wage</b>	\$16.33
<b>% of All Support HC Occupations</b>	11.14%
<b>Share of Occupation Expected to Retire in Next 20 Years</b>	35%

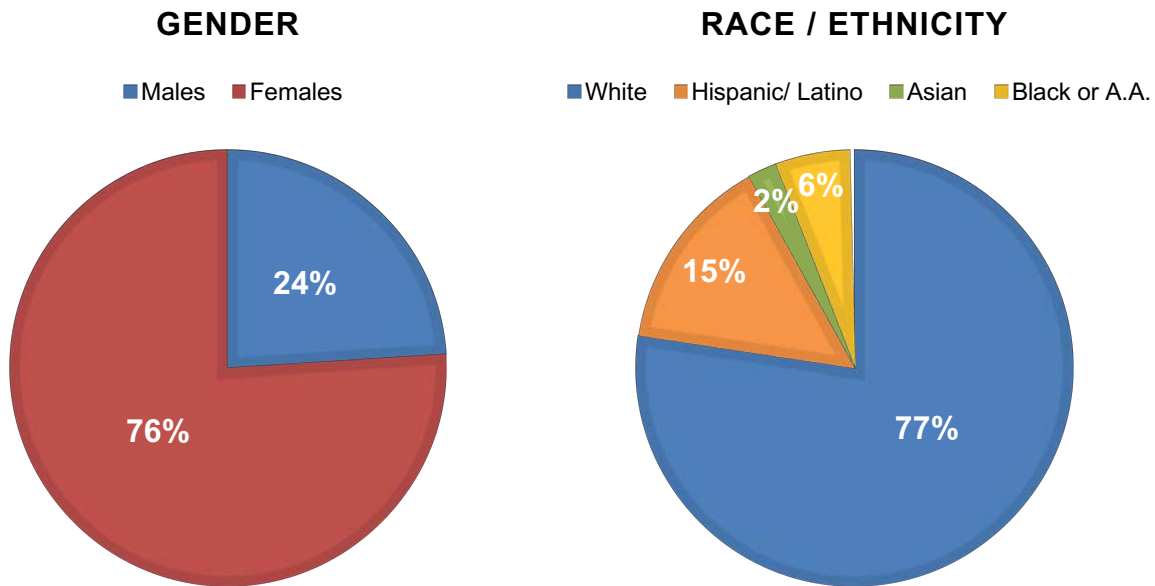
Licensure / Certification Requirements: Medical Assistants <sup>30,31</sup>	
<b>Training Time</b>	On-the-job training
<b>Field Experience</b>	On-the-job training
<b>Certification</b>	Certified Medical Assistant or Registered Medical Assistant (American Medical Technologists Certification)
<b>License</b>	Unlicensed
<b>Exam</b>	American Association of Medical Assistants Exam or American Medical Technologist RMA Exam
<b>Degree</b>	Postsecondary Certificate or Diploma

<sup>30</sup> There are no standardized training procedures nor mandatory certification or degree requirement to become a Medical Assistant in Rhode Island. This table presents eligibility criteria for those seeking to obtain voluntary certification.

<sup>31</sup> Bureau of Labor Statistics Occupational Outlook Handbook



## Medical Assistant Demographics



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### *Occupational Profile: Professional Nurses*

**Professional Nurses** (Registered Nurses) assess patient health conditions and needs, administer care, and maintain medical records.<sup>32</sup> Nurses are critical to the delivery of quality care in every setting, including ambulatory care clinics, hospitals, nursing homes, and home health agencies. Comprising the largest of all health occupations, nurses provide the bulk of all patient care. They coordinate care, monitor health conditions, plan long-term care needs, administer medicine, use medical equipment, perform minor medical operations, and advise patients and their families on illness, care, and continued care after a hospital stay. They also educate patients and the public on health conditions. **Advanced Practice Registered Nurses** are master's degree-prepared and may work in specialized areas, such as Nurse Practitioners, Certified Nurse Midwives, Certified Registered Nurse Anesthetists, and Clinical Nurse Specialists. They may assume the direct patient care responsibilities of RNs, but practice with more complex skills and knowledge, synthesis of data, and greater role autonomy.<sup>33</sup> APRNs, such as Nurse Practitioners, practice, where allowable, as primary-care providers.

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<sup>32</sup> U.S. Bureau of Labor Statistics. No date. *Summary Report for: 29-1141.00: Registered Nurses*. O\*Net Online. Accessed from <https://www.onetonline.org/link/summary/29-1141.00>.

<sup>33</sup> *Consensus Model for APRN Regulation: Licensure, Accreditation, Certification, and Regulation*. 2008. APRN Consensus Work Group & the National Council of State Boards of Nursing APRN Advisory Committee. July 7, 2008.

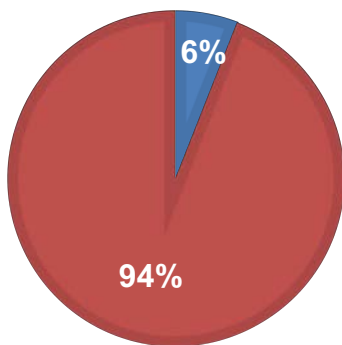
**New and Emerging Skills and Roles:** Registered nurses and masters-prepared Nurse Practitioners are looked to increasingly to coordinate care—working with patients to ensure they receive needed services, address patient preferences, share information across providers, and help manage care transitions.<sup>34</sup> Their role is being transformed to provide greater care in the community, address population health issues, and manage chronic disease. Nurses are also increasingly called upon to lead or serve in cross-disciplinary teams with behavioral health, social service providers, and other roles, such as pharmacists, dieticians, and community health workers. For nurses with specialized training and advanced education, roles are emerging for geriatric nurse practitioners and nurse informaticists or analysts, who combine nursing knowledge with skills in using technology and data to track clinical outcomes.

Nurse Practitioners	
Total Employment 2016	546
Total Openings 2016-2026	242
Openings Due to Growth	99
Openings Due to Replacement	143
2016 Average Wage	\$49.96
% of All Professional/Technical HC Occupations	1.54%
Share of Occupation Expected to Retire in Next 20 Years	61%

### Nurse Practitioner Demographics

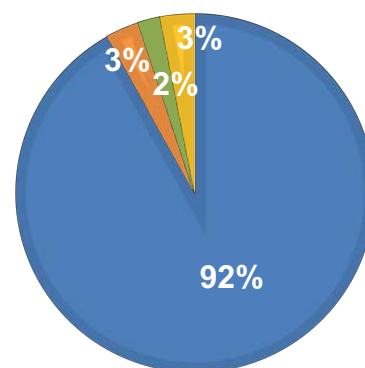
#### GENDER

■ Male ■ Female



#### RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.



<sup>34</sup> Fraher, Erin, Joanne Spetz, and Mary Naylor. 2015. *Nursing in a Transformed Health System: New Roles, New Rules*. Research Brief. Interdisciplinary Nursing Quality Research Initiative. University of Pennsylvania, Leonard Davis Institute of Health Economics. June 2015.

<b>Registered Nurses</b>	
<b>Total Employment 2016</b>	11,906
<b>Total Openings 2016-2026</b>	3,603
<b>Openings Due to Growth</b>	696
<b>Openings Due to Replacement</b>	2,907
<b>2016 Average Wage</b>	\$36.78
<b>% of All Professional/Technical HC Occupations</b>	33.56%
<b>Share of Occupation Expected to Retire in Next 20 Years</b>	59%

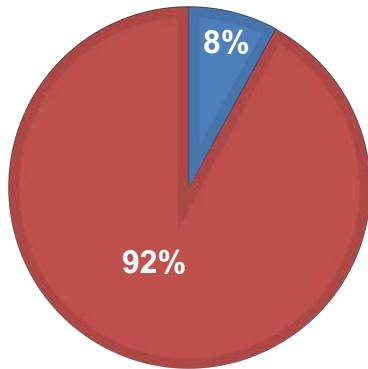
<b>Licensure / Certification Requirements: Professional (Registered) Nurses</b>	
<b>Training Time</b>	Included in degree
<b>Field Experience</b>	Included in degree
<b>Certification</b>	Vary according to specialty
<b>License</b>	Professional (Registered) Nurse (RN)
<b>Exam</b>	NCLEX-RN
<b>Degree</b>	High School Diploma, Bachelor's Degree (Preferred) or Associate's Degree

<b>Licensure / Certification Requirements: Advanced Practice Registered Nurses</b>	
<b>Training Time</b>	Included in degree
<b>Field Experience</b>	Must have RN License
<b>Certification</b>	Certified Nurse Practitioner (CNP), Certified Registered Nurse Anesthetist (CRNA), Certified Clinical Nurse Specialist (CNS)
<b>License</b>	APRN
<b>Exam</b>	NCLEX-RN
<b>Degree</b>	Advanced/Master's Degree

## Registered Nurse Demographics

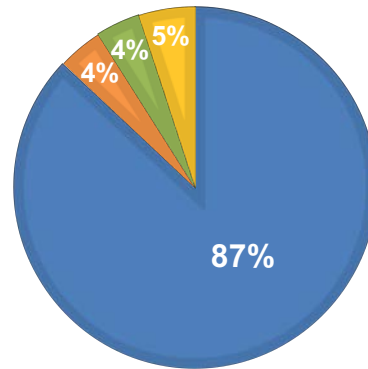
### GENDER

■ Male ■ Female



### RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.



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## Occupational Profile: Pharmacist

**Pharmacists** dispense medication and educate patients about their correct use. They also advise physicians and other health practitioners about medications, and prevent hospitalization and aggravated health conditions associated with medication problems.<sup>35</sup> In their emerging roles, they are aiding patients in managing their own health conditions, and increasing access to care.

**New and Emerging Skills and Roles:** Pharmacists in Rhode Island and elsewhere are assuming wider roles in patient care teams—reconciling multiple medications to prevent medical errors and costly treatment, ensuring accountability, assisting patients in managing their care and creating plans to follow through on using their medication, and coordinating drug therapies.<sup>36</sup> Some states are experimenting with Advanced Practice Pharmacist roles to increase access to care. These roles, under physician guidance, allow pharmacists to provide direct care to patients for minor ailments and conditions, such as bacterial ear infections, shortness of breath from asthma, or allergic reactions. Washington State has established a role and protocol for Clinical Community Pharmacists.

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<sup>35</sup> U.S. Bureau of Labor Statistics. No date. *Summary Report for: 29-1051.00. Pharmacists*. O\*Net Online. Accessed from <https://www.onetonline.org/link/summary/29-1051.00#menu>.

<sup>36</sup> Fraher, Erin. 2015. *The Workforce Needed to Staff Value-Based Models of Care*. National Policy Health Forum. Slide Presentation. 2/20/15. Washington, DC. Accessed from [https://www.nhpf.org/uploads/Handouts/Fraher2-slides\\_02-20-15.pdf](https://www.nhpf.org/uploads/Handouts/Fraher2-slides_02-20-15.pdf).

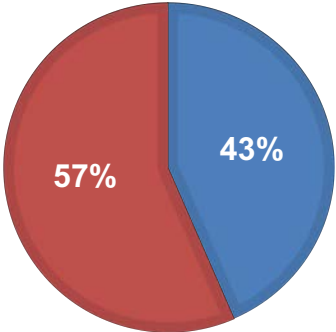
Pharmacists	
Total Employment 2016	1,395
Total Openings 2016-2026	316
Openings Due to Growth	-58
Openings Due to Replacement	374
2016 Average Wage	\$56.73
% of All Professional/Technical HC Occupations	3.93%
Share of Occupation Expected to Retire in Next 20 Years	41%

Licensure / Certification Requirements: Pharmacists	
Training Time	Included in degree
Field Experience	1 year internship included in degree
Certification	None
License	Pharmacist
Exam	NAPLEX or NABP
Degree	Pharm. D.

### Pharmacist Demographics

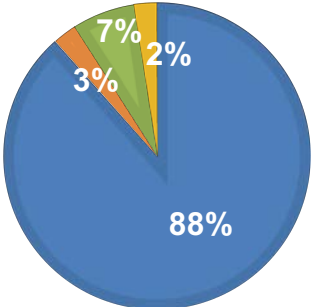
#### GENDER

Male Female



#### RACE / ETHNICITY

White Hispanic/ Latino Asian Black or A.A.



# Occupational Profile: Physical Therapist

**Physical Therapists** assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and improve or correct disabling conditions resulting from disease or injury.

**New and Emerging Skills and Roles:** PTs’ restorative and therapeutic skills are relevant to chronic disease management as well as preventive and population health—especially in treating underserved populations with disabilities, obesity, or other challenges. They play an increasingly vital role in supporting patients to remain in their homes and communities.

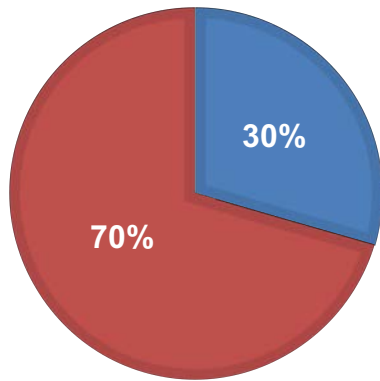
Physical Therapists	
Total Employment 2016	1,081
Total Openings 2016-2026	512
Openings Due to Growth	191
Openings Due to Replacement	321
2016 Average Wage	\$38.00
% of All Professional/Technical HC Occupations	3.05%
Share of Occupation Expected to Retire in Next 20 Years	40%

Licensure / Certification Requirements: Physical Therapists	
Training Time	Included in degree
Field Experience	Included in degree
Certification	None
License	Physical Therapist
Exam	NPTE
Degree	D.P.T.

## Physical Therapist Demographics

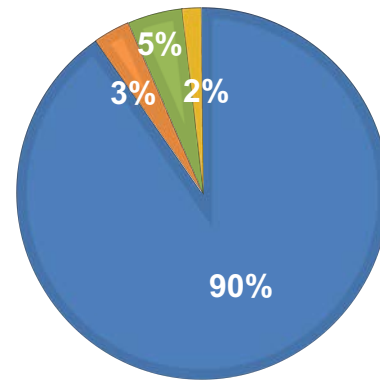
### GENDER

■ Male ■ Female



### RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.




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## *Occupational Profile: Physicians*

**Physicians (Family and General Practitioners)** diagnose, treat, and help prevent diseases and injuries that commonly occur in the general population. They may refer patients to specialists when needed for further diagnosis or treatment.

**New and Emerging Skills and Roles:** GP physicians, especially in practices undergoing transformation as patient-centered medical homes, are assuming leadership roles in building teams that facilitate integrated and coordinated care, overseeing workflow redesign, and adapting to value-based payments and transition to electronic medical records.

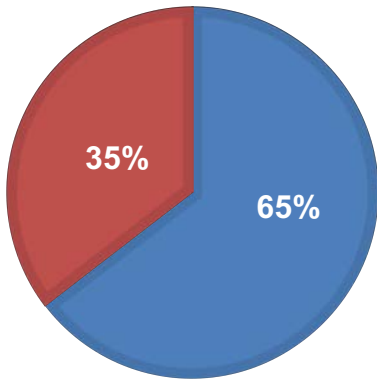
Physicians (all)	
Total Employment 2016	2,695
Total Openings 2016-2026	857
Openings Due to Growth	112
Openings Due to Replacement	745
2016 Average Wage	\$80.21
% of All Professional/Technical HC Occupations	7.60%
Share of Occupation Expected to Retire in Next 20 Years	59%

Licensure / Certification Requirements: Physicians	
Training Time	Included in degree
Field Experience	2-year residency post-graduation
Certification	None
License	Allopathic Physician or Osteopathic Physician
Exam	NBME/NBOME and USMLE/COMLEX-USA
Degree	M.D., D.O.

### Physician Demographics

#### GENDER

■ Male ■ Female



#### RACE / ETHNICITY

■ White ■ Hispanic/ Latino ■ Asian ■ Black or A.A.

