



# Mapping the healthcare chaplaincy workforce: a baseline description

Kelsey B. White<sup>a</sup> , Marilyn J. D. Barnes<sup>b</sup>, Wendy Cadge<sup>c</sup>, and George Fitchett<sup>d</sup>

<sup>a</sup>Department of Health Management and System Sciences, University of Louisville, Louisville, KY, USA;

<sup>b</sup>Advocate Aurora Health Care System, Chicago, IL, USA; <sup>c</sup>Department of Sociology, Brandeis University, Waltham, MA, USA; <sup>d</sup>Department of Religion, Health, and Human Values, Rush University Medical Center, Chicago, IL, USA

## ABSTRACT

Changing U.S. demographics and the growing emphasis on diversity in the healthcare workforce requires professional healthcare chaplains to examine the characteristics of its own workforce. Previous research suggested that chaplains were mainly Caucasian/White and Mainline Protestant. To explore further, this paper presents a baseline sketch of the workforce and identifies important differences among board-certified chaplains (BCCs), certified educators, certified educator candidates (CECs), and clinical pastoral education (CPE) students. Although missing data quickly became the central story of the analysis and thus requires caution in comparison, the preliminary results suggest BCCs and Certified Educators are older and Whiter/more Caucasian than CECs and CPE students. At least one-third of chaplains and Certified Educators identify as Mainline Protestant, but students and CECs reported greater variation in religious affiliation. Chaplains may be similar to users of healthcare and hospitalized persons in terms of gender and race/ethnicity. Recommendations include suggestions for improving the data infrastructure of professional chaplaincy organizations.

## KEYWORDS

Chaplain; demographics; diversity; religious affiliation; workforce

## Introduction

### ***Changes in the U.S. population and healthcare utilization***

The United States population is diverse and changing in many ways—including a steep growth in the number of people who come from several historically underrepresented racial/ethnic groups. Changes in the demographic makeup of the U.S. include both increasing and decreasing members of specific populations. Research suggests that population growth between 2000 and 2010 came from an increase in the Hispanic population and that the group of individuals who identified as “Asian” grew faster than all others. Individuals who identified as non-Hispanic/White decreased by 5% (Humes, Jones, & Ramirez, 2011). Even though the U.S. Census does not gather data about religion, the Pew Research Center reported significant changes in religious affiliation and practices between 2007 and 2014, most notably the growing number of people who are

not religiously affiliated (Pew Research Center, 2015). They note the pronounced drop in individuals identifying as Mainline Protestant as well as those affiliated with other Christian traditions. These changes remain present across different age, gender and racial groups (Pew Research Center, 2015).

There are also important demographic changes in healthcare utilization. The Agency for Healthcare Research and Quality (AHRQ) reported that those hospitalized between 2005 and 2014 were more likely to have Medicaid coverage than private insurance and that those with the highest income were hospitalized at a decreasing rate (McDermott, Elixhauser & Sun, 2017). Women are more likely to be hospitalized than men, as well as those reporting incomes in the lowest quartile (McDermott et al., 2017). Increasing hospitalization rates, in some geographic areas, were due to a rise in mental health service use and substance abuse challenges (up 12.2%; McDermott et al., 2017). Members of some underrepresented demographic groups tend to be low income and encounter barriers when using U.S. healthcare systems (MacCartney, Bishaw & Fontenot, 2013). Increased access for healthcare users in underrepresented groups was one result of the passage of the Affordable Care Act (ACA). Kentucky's Medicaid expansion, for example, increased access for low-income individuals and decreased the rate of unmet medical needs, thus increasing contact with the healthcare system (Benitez, Creel, & Jennings, 2016).

How the healthcare workforce can best help people with a wide range of individual needs is an ongoing question. Workforce diversification may enhance the efficacy of services (Cohen, Gabriel, & Terrell, 2002). Specifically, when the professionals providing healthcare services resemble the people they serve, health systems become more culturally competent, improve access, strengthen research planning and agendas, and improve management of healthcare systems (Cohen et al., 2002; LaVeist & Pierre, 2014). Individuals and systems that lack cultural competence can create barriers that lower the quality of care delivered (LaVeist & Pierre, 2014; Mitchell & Lassiter, 2006). Existing research is limited, but the available evidence (Cadge, 2012) suggests the chaplaincy workforce (as with other healthcare disciplines) does not match the U.S. population and may not match the population of healthcare service users along a number of demographic measures.

### ***Considerations for workforce diversification***

There is no research about the impact of demographics (age, gender, race) concordance between patients/families and spiritual care providers on the effectiveness of spiritual care. In other health professions, some have argued for racial concordance between providers and patients for treatment outcomes (King, Wong, Shapiro, Landon, & Cunningham, 2004) and others identified the importance of gender concordance between patients and providers for adherence to cancer screening recommendations (Malhotra et al., 2017). Provider-patient demographic concordance may also impact satisfaction (Cooper-Patrick et al., 1999; Saha, Komaromy, Koepsell, & Bindman, 1999). Bringing individuals from traditionally underrepresented groups into a profession also means understanding the educational pathways, both barriers and facilitators, that move them into the workforce. Formal educational settings have prioritized an increased

representation of “minority” groups among their faculty to strengthen student development and improve students’ abilities to work effectively in their selected discipline (Cohen et al., 2002; Gurin, 1999). Students in some settings benefit from increased self-efficacy and improved academic performance when educated by an individual of a similar racial/ethnic/gender identity (Dee, 2004; 2005; U.S. Department of Education, 2016).

Many health professions and organizations have advocated for policy recommendations and other efforts to increase diversity in the healthcare workforce, especially around race, ethnicity, and gender. The emergence of the 2004 report by the Sullivan Commission on Diversity in the Healthcare Workforce (2004), funded by the W.K. Kellogg Foundation, suggested that the lack of diversity in the healthcare workforce needs legislative attention (Sullivan Commission on Diversity in the Healthcare Workforce, 2004). Researchers contend that this problem can not only lower the quality of care delivered, but also influence the rates of chronic conditions and premature deaths among underrepresented groups (Cooper & Roter, 2002). Policy recommendations include changing the demographic make-up of educational institutions, creating non-traditional paths into healthcare professions, and commitment from organizational leadership (Sullivan Commission on Diversity in the Healthcare Workforce, 2004). The ACA also included provisions to address workforce diversity through education on cultural competence and funding opportunities for healthcare professionals that care for diverse populations (LaVeist & Pierre, 2014). While healthcare professionals are beginning to discuss these topics, they have received little attention from healthcare chaplains.

### ***The healthcare chaplaincy workforce***

Little is known about the demographics or religious affiliations of chaplains in healthcare and how they relate—as a workforce—to the demographics of the U.S. population. As a growing number of healthcare organizations continue diversity and inclusion efforts to address healthcare disparities, it is also unclear whether the characteristics of chaplains are changing in ways that might make them more a part of the solution than the problem. In 2012, Wendy Cadge raised questions about the characteristics of chaplains by comparing the religious distribution of the U.S. population to the membership of the professional organizations of healthcare chaplains (Association of Professional Chaplains (APC), National Association of Catholic Chaplains (NACC), and Neshama—Association of Jewish Chaplains (NAJC)). She identified that chaplains tended to be more Protestant than members of the U.S. population and preliminary evidence suggested they were more likely to be White/Caucasian (Cadge, 2012). Some of these organizations have prioritized diversity and inclusivity within their vision and values (Association of Professional Chaplains, 2017; National Association of Catholic Chaplains, 2018), yet there is little empirical evidence of what effects, if any, such efforts have had. Researchers and chaplaincy leaders also do not know if chaplains demographically resemble the users of healthcare, how chaplain characteristics are changing, and/or whether chaplain-patient discordance impacts the provision of care.

The debate about the importance of demographic concordance for patients and providers could also be extended to the chaplaincy workforce. Questions have been raised

about the effectiveness of non-concordant religious affiliation between patients/families and spiritual care providers (Abu-Ras, 2011; Abu-Ras & Laird, 2011). For example, the religious rituals provided to Muslim patients could be limited, especially around birth and death, if the spiritual care provider were not Muslim (Abu-Ras & Laird, 2011). Some healthcare settings, such as psychiatric settings, may also have an increased need for faith-concordant spiritual care providers due to influence of religious beliefs on health trajectories (Saleem, Treasaden & Puri, 2014). With chaplains' responsibilities ranging from the provision of religious rituals to the processing of emotional and theological distress, one could hypothesize that disparities in care may arise due to a religiously discordant chaplain–patient relationship. However, researchers have yet to examine this possibility.

Efforts to create a healthcare chaplaincy workforce that is more diverse demographically and in religious affiliation must begin with a description of the present workforce as well as those in preparation for careers in chaplaincy. As a chaplain is trained to be “a student of cultures and religions” (Ai & McCormick, 2010, p. 37), examining the diversity of the workforce could strategically improve the profession’s efforts to impact recruitment into the profession as well as organizational policies (Cohen et al., 2002). However, much remains unknown about the baseline characteristics of chaplains and their educational environment. For example, are there gaps in the educational pathways that bring individuals into the profession that are detrimental to building the strongest and most diverse workforce of healthcare chaplains. Examining these questions requires beginning with a description of the demographics, religious affiliations, and other characteristics of the present workforce and those in preparation for careers in chaplaincy.

## ***Study aims***

This study aimed to answer the following questions:

1. What are the demographic characteristics of members of the main professional chaplains' organizations (APC, NACC, NAJC)?
2. What are the demographic characteristics of board-certified chaplains (BCCs)?
3. What are the demographic characteristics of the Association for Clinical Pastoral Education (ACPE) Certified Educators and those training to become Certified Educators (CECs)?
4. What are the demographic characteristics of individuals training in clinical pastoral education (CPE) to become professional chaplains?
5. What are the demographic characteristics of users of healthcare and hospitalized individuals?

## **Methods**

### ***Data collection***

This study is a cross-sectional descriptive report of the demographic characteristics of healthcare chaplains. Data for the project was provided by ACPE and three major professional chaplaincy organizations: APC, NACC, and NAJC. The datasets included

de-identified information on the organization's members including professional chaplains, Certified Educators, CECs, and CPE students. These three professional associations were selected (and not others) due to their similar standards and credentialing processes. Additionally, the strong cognate relationship and age of all four organizations appears to foster the most direct pathway into the profession.

The team also utilized public data, obtained from the Pew Research Center's report on the religious make-up of the U.S. (Pew Research Center, 2015) and from the U.S. Centers for Disease Control (DHHS, 2016a; DHHS, 2016b), for 'users of healthcare' and 'hospitalized persons.' The Institutional Review Board at Brandeis University exempted this study since it used de-identified data. Excel, R version 1.1.456, and SAS version 9.4 were used for data cleaning and analysis.

### ***Sample***

Each of the chaplaincy organizations has its own membership categories and not all of their members are currently working as chaplains. The analysis began with selection of relevant membership categories for each of the organizations and the removal of retired and student members in each organization. APC organizes member type in six different categories (affiliate member, certified member, non-member, provisional certified member, retired member, and student); non-members were removed from the APC sample. For NACC, membership was comprised of 8 different categories (affiliate, educational institution, emeritus, inactive, lifetime member, member, retired, and student). Those designated as affiliates, lifetime members, and members were retained in the dataset, all other member types were omitted. NAJC distinguishes 11 categories of members (associate professional members, board certified members, credentialed military member, general member, Israeli Certified Member, Israeli member, military member, non-profit supporter, retired member, student member, and professional member); all except retired, student and non-profit supporting members were retained in the dataset for analysis. Data obtained from the APC, NACC and Neshama captured membership as of January 2018.

The sample of ACPE students came from 2016 unit-level data. Those students who completed a Level II unit between May and August of 2016 were retained as a proxy for students training for chaplaincy. A separate 2016 dataset provided information about CECs and Certified Educators; retired Educators were removed from the latter.

For the CDC data (DHHS, 2016a), "user of healthcare" were defined as individuals reporting at least 1 physician or healthcare service-related visit in 2016 and "hospitalized persons" included individuals who reported at least one overnight hospitalization (DHHS, 2016b).

### ***Demographic variables***

This study focused on the demographic variables of age, gender, and race/ethnicity. Other variables (listed below) included employing/center organization type, religious affiliation, and U.S. Census region. For active chaplains, the team also included certification type.

### **Age**

The ages were grouped into the age brackets of less than 25 years old, 25–44 years old, 45–64 years old, and 65 or older.

### **Gender**

Professional chaplain organizations provided binary gender identifiers (female or male) and ACPE provided six gender identifiers (female, male, intersex, gender non-conforming, queer, transgender). The latter four gender identifiers were grouped together due small frequency counts.

### **Race/ethnicity**

Most researchers categorize race and ethnicity separately, however, since these organization did not differentiate, the recoding of race/ethnicity was determined by the categories that were similar among organizations. The organizations also used different race/ethnicity labels among them. Thus, data was recoded into the major categories of Asian/Southeast Asian/Pacific Islander, Black/African American, Caucasian/White, Hispanic/Latino, Multiracial, and Other.

### **Other variables**

#### **Center/employing organization type**

Based on the chaplain's employer or the CPE center, an organization type was given. Each participant received one of six different organization types: faith community, hospice, hospital, other healthcare, Veteran's Administration medical center, or other. Other healthcare included such organizations as long-term acute care facilities, retirement homes, mental health facilities, and skilled nursing facilities. Other represents an array of organizations from prison chaplaincy to academic organizations. NACC did not distinguish between general hospital type and VA medical centers; NAJC did not report this data.

#### **Certification type**

Professional chaplain organizations also document certification in different ways. APC distinguishes certification through both certification type and member type; affiliate members are non-certified while other members are either board certified, associate certified, or provisional certified. Members of NACC are identified as either board certified, board certified advanced, board certified educators, or non-certified. NAJC members' certification status was identified through member type.

### **Region**

To examine if chaplains work in specific parts of the country, the state from each chaplain's mailing address was used to sort the samples into U.S. Census regions (Midwest, Northeast, South, and West).

### ***Religious affiliation***

Each participant had a corresponding denominational identifier or religious identifier. These identifiers were recoded into the major categories used by the Pew Research Forum (Pew Research Center, 2015). The “other” category includes individuals identifying with the Church of Jesus Christ of Latter Day Saints, Hindu, Jehovah’s Witness, Other World Religions, and Unitarian Universalist.

### ***Analysis***

Descriptive statistics were calculated for the various samples. Due to the amount of missing data and inconsistent data recording labels among organizations, these results focus on providing a cross-sectional descriptive report.

### **Results**

Data for approximately 6000 active chaplains was examined; 70% of these were members of APC, 24% were members of NACC, and 8% were members of NAJC. More BCCs make up the active membership of the professional organizations than non-BCCs (67.2 versus 32.8%). Information about 1249 CPE students, 101 CECs, and 709 Certified Educators was reviewed. Data from a sample of 35,000 U.S. adults were analyzed from the Pew Research Center (2015). Finally, demographics for over 200 million users of healthcare and an additional 23 million hospitalized persons were examined.

Tables 1–4 illustrate the overall demographics and characteristics of active chaplains (both certified and non-certified), CPE students, CECs, and Certified Educators. Table 1 describes the characteristics of active members of professional chaplain organizations. The members of these organizations are a third Mainline Protestant (30.3%), and two-thirds Caucasian/White (63.8%). Among the complete sample, majority are age 45 years or older (64.1%) and are board certified (64.6%). Among all the chaplains and also within each of the three professional organizations, approximately half of the members were male and half female. The percent of chaplains who identify as non-Caucasian/non-White is approximately 18.3% and those who identify as non-Christian is approximately 12.1%. Approximately, half of the sample 50.5% work in a hospital setting. Table 1 shows the regional differences among organizations. The largest proportion of APC members live in the South (38.0%), while the largest proportion of NACC members reside in the Midwest (32.9%), and NAJC members live in the Northeast (42.6%). Table 1 also highlights the substantial proportion of missing data for key demographic characteristics (age, religious affiliation, race/ethnicity, employing organization type) which compromises an accurate description of the chaplain workforce.

Of the 6000 members of the chaplaincy organizations, two-thirds (approximately 4000 members) were board certified (Table 2). APC certified over 70% of the BCCs while NACC certified approximately 24% and NAJC certified approximately 4%. BCCs are primarily between the ages of 45–64 years old (55.7%), affiliated with Mainline Protestantism (39.6%) or Catholicism (26.0%), and two thirds identify as Caucasian/White (62.6%). Comparisons between BCCs and non-board certified members were limited due to missing data. Age and religious affiliation is largely unknown for non-BCCs

**Table 1.** Active members<sup>a</sup> of professional chaplain organizations as of 2018, *N* = 5917.

Variable	APC <i>N</i> (%)	NACC <i>N</i> (%)	NAJC <i>N</i> (%)	All active members <i>N</i> (%)
<i>N</i>	4003 (69.6)	1430 (24.2)	484 (8.2)	5917 (100.0)
Age				
Mean (SD)	55.0 (10.7)	61.6 (1.1)	–	56.9 (11.2)
<25	–	1 (0.1)	–	1 (0.0)
25–44	477 (11.9)	93 (6.5)	48 (9.9)	618 (10.4)
45–64	1612 (40.3)	742 (51.9)	301 (62.2)	2655 (45.0)
65 +	416 (10.4)	578 (40.4)	135 (27.9)	1129 (19.1)
Missing	1498 (37.4)	16 (1.1)	–	1514 (25.5)
Gender				
Female	1897 (47.4)	781 (54.6)	253 (52.3)	2931 (49.5)
Male	2002 (50.0)	621 (43.4)	228 (47.1)	2851 (48.2)
Missing	104 (2.6)	28 (2.0)	3 (0.6)	135 (2.3)
Religious affiliation				
Buddhist	26 (0.7)	–	–	26 (0.4)
Catholic	118 (3.0)	1335 (93.4)	–	1453 (24.6)
Christian orthodox	30 (0.7)	–	–	30 (0.5)
Evangelical protestant	987 (24.6)	–	–	987 (16.7)
Historically Black Churches	119 (3.0)	–	–	119 (2.0)
Jewish	65 (1.6)	–	484 (100.0)	549 (9.3)
Mainline protestant	1795 (44.8)	–	–	1795 (30.3)
Muslim	8 (0.2)	–	–	8 (0.1)
Other faiths	116 (2.9)	20 (1.4)	–	136 (2.3)
Missing	739 (18.5)	75 (5.2)	–	814 (13.8)
Race/ethnicity <sup>b</sup>				
Asian/Southeast Asian/Pacific Islander	156 (3.9)	47 (3.3)	1 (0.2)	204 (3.5)
Black/African American	480 (12.0)	53 (3.7)	–	533 (9.0)
Caucasian/White	2784 (69.6)	508 (35.5)	483 (99.8)	3775 (63.8)
Hispanic/Latino	100 (2.5)	27 (1.9)	–	127 (2.1)
Multiracial	–	6 (0.4)	–	6 (0.1)
Other	133 (3.3)	82 (5.7)	–	215 (3.6)
Missing	350 (8.7)	707 (49.4)	–	1057 (17.9)
Employing organization type <sup>c</sup>				
Faith community	133 (3.3)	85 (5.9)	–	218 (3.7)
Hospice	444 (11.1)	94 (6.6)	–	538 (9.1)
Hospital	2112 (52.8)	878 (61.4) <sup>d</sup>	–	2990 (50.5)
Other	321 (8.0)	109 (7.6)	–	430 (7.3)
Other healthcare	460 (11.5)	95 (6.6)	–	555 (9.4)
VA medical center	59 (1.5)	– <sup>d</sup>	–	59 (1.0)
Missing	474 (11.8)	169 (11.8)	484 (100.0) <sup>c</sup>	1127 (19.0)
Certification type				
Associate certified	57 (1.4)	–	–	57 (1.0)
Board certified <sup>e</sup>	2700 (67.5)	965 (67.5)	157 (32.4)	3822 (64.6)
Provisional certified	77 (1.9)	–	–	77 (1.3)
Non-certified	1169 (29.2)	465 (32.5)	298 (61.6)	1932 (32.6)
Missing	–	–	29 (6.0)	29 (0.5)
Region				
Midwest	1076 (26.9)	471 (32.9)	67 (13.8)	1614 (27.3)
Northeast	527 (13.2)	378 (26.4)	206 (42.6)	1111 (18.8)
South	1522 (38.0)	284 (19.9)	83 (17.2)	1889 (31.9)
West	854 (21.3)	279 (19.5)	81 (16.7)	1214 (20.5)
Non-US	17 (0.4)	16 (1.2)	43 (8.9)	76 (1.3)
Missing	7 (0.2)	2 (0.1)	4 (0.8)	13 (0.2)

<sup>a</sup>The sample for active members includes for (1) APC: Affiliate Members, Certified Members, and Provisional Certified Members (removed Retired and Student Members), (2) NACC Affiliate Members, Lifetime Members, and Members (removed Dropped Members, Educational Institution Members, Emeritus Members, Inactive Members, Retired Members, and Student Members), and (3) NAJC Associate Professional Members, Board Certified Members, Credentialed Military Member, General Member, Israeli Certified Member, Israeli Member, Military Member, and Professional Members (removed Non-Profit Supporter, Retired Members and Student Members)

<sup>b</sup>Typically studies distinguish between race and ethnicity; these constructs are presented together since the organizations providing data do not distinguish.

<sup>c</sup>Information not available for NAJC.

<sup>d</sup>NACC does not distinguish between hospital and VA Medical center.

<sup>e</sup>For NACC, this includes BCC advanced, BCC educators.

**Table 2.** Characteristics of board-certified chaplains and non-board-certified chaplains as of 2018 (N = 5888).<sup>a</sup>

Variable	Board certified N (%)	Non-board certified N (%)
N	3956 (67.2)	1932 (32.8)
Age		
Mean (SD)	56.6 (10.7)	57.7 (12.3)
<25	–	1 (0.0)
25–44	550 (13.9)	64 (3.3)
45–64	2203 (55.7)	434 (22.5)
65+	827 (20.9)	295 (15.3)
Missing	376 (9.5)	1138 (58.9)
Gender		
Female	1973 (49.9)	946 (49.0)
Male	1939 (49.0)	895 (46.3)
Missing	44 (1.1)	91 (4.7)
Religious affiliation		
Buddhist	20 (0.5)	6 (0.3)
Catholic	1028 (26.0)	430 (22.3)
Christian orthodox	25 (0.6)	5 (0.3)
Evangelical protestant	848 (21.4)	139 (7.2)
Historically Black Churches	111 (2.8)	8 (0.4)
Jewish	218 (5.5)	302 (15.6)
Mainline protestant	1566 (39.6)	229 (11.8)
Muslim	8 (0.2)	–
Other faiths	93 (2.4)	38 (2.0)
Missing	39 (1.0)	775 (40.1)
Race/ethnicity <sup>b</sup>		
Asian/Southeast Asian/Pacific Islander	148 (3.7)	56 (2.9)
Black/African American	344 (8.7)	189 (9.8)
Caucasian/White	2477 (62.6)	1269 (65.7)
Hispanic/Latino	79 (2.0)	48 (2.5)
Multiracial	4 (0.1)	2 (0.1)
Other	144 (3.6)	71 (3.7)
Missing	760 (19.2)	297 (15.4)
Employing organization type <sup>c</sup>		
Hospital	2239 (56.6)	751 (38.9)
Hospice	350 (8.8)	188 (9.7)
VA hospital	47 (1.2)	12 (0.6)
Other healthcare	370 (9.4)	185 (9.6)
Other	245 (6.2)	185 (9.6)
Faith community	105 (2.6)	113 (5.6)
Missing	600 (15.2)	498 (25.8)
Certifying organization		
APC	2834 (71.6)	1169 (60.5)
NACC	965 (24.4)	465 (24.1)
NAJC	157 (4.0)	298 (15.4)
Region		
Midwest	1152 (29.1)	457 (23.7)
Northeast	650 (16.4)	453 (23.6)
South	1340 (33.9)	541 (28.0)
West	785 (19.8)	422 (21.8)
Non-US	24 (0.6)	51 (2.7)
Missing	5 (0.1)	8 (0.4)

<sup>a</sup>Sample total comes from certification type in Table 1: board certified includes associated certified, board certified, and provisional certified; non-board certified includes non-certified. Missing data from certification type not included in this table (N = 58).

<sup>b</sup>Typically studies distinguish between race and ethnicity; these constructs are presented together since the organizations providing data do not distinguish.

<sup>c</sup>Information not available for NAJC.

(58.9% and 40.1% missing, respectively). Both samples appear approximately equal in the number of males and females. Both BCCs and non-BCCs have over 15% missing race/ethnicity data. From the reported data, it appears that the proportion of non-Caucasian/non-White BCCs is around 18.1% and the proportion of non-Caucasian/non-White chaplains not board certified is 19.0%, however, this should be treated cautiously. Regional locations of BCCs and non-BCCs appear similar, although the proportions of non-BCCs were slightly higher in the West and Northeast. The prevalence of missing data limited characterizing non-BCCs and precluded any comparison between BCC and non-BCC.

CPE unit data was utilized to examine 1,249 students who completed a Level 2 unit between May and August of 2016. Since there was no identifier for individuals training for professional chaplains versus enrolling in units for other reasons including, ordination or degree credit, these selection criteria were used as a proxy for students training to enter professional chaplaincy ([Table 3](#)). Overall, the students are more diverse than professional chaplains. Specifically, students are younger, 37.9% of students are under 44 years old (compared to 13.9% of BCCs; see [Table 2](#)), more students identify as Evangelical Protestant (34.4 versus 21.4% of BCCs), and fewer identified as Catholic (10.9 versus 26.0% of BCCs). Students identifying as non-Christian represent about 13.3% and 8.6% for BCCs. The gender distribution of students (50.8% male) appears similar to BCCs (49.0% male). The proportion of non-Caucasian/non-White identifying students is 36.0%, while [Table 2](#) shows about 18.1% of BCCs are non-Caucasian/non-White. The students were 22.5% Black/African American and only 8.7% of BCCs identify as such.

Using a directory of certified educator candidates (CECs) and Certified Educators, demographics and characteristics for 101 CECs and 709 Certified Educators were examined ([Table 4](#)). CECs are younger and more religiously and racially/ethnically diverse than BCCs, while Certified Educators appear more homogeneous in those demographic characteristics than BCCs. Compared to BCCs where the proportion of 25–44-year-old individuals is 13.9%, CECs have a higher proportion (35.6%) and Certified Educators have fewer (9.3%) people in this age range (considerations for Certified Educators' age should be treated cautiously because 20% of the information is missing). Again, the trend for nearly equal proportions of men and women continues with CECs and Certified Educators. The proportion of Evangelical Protestants is higher among CECs as compared to BCCs (32.7 versus 21.4%) while Certified Educators are less frequently Evangelical Protestant compared to BCCs (16.5%). CECs appear to be training in the Midwest (35.6%) and South (34.7%), Certified Educators are teaching in the South (38.8%), and BCCs reside in the South (33.9%). CECs have a higher proportion of Black/African American individuals 26.7% as compared to BCCs (8.7%); however, considerations for race/ethnicity are limited since over half of Certified Educators (51.9%) are missing this data.

[Table 5](#) shows the comparison between how individuals in the U.S. identify religiously as compared to active chaplains. Chaplains are one third Mainline Protestant (30.3%) while U.S. adults are only 15% Mainline Protestant. The Pew data suggest that Evangelical Protestants (25.4%) and unaffiliated/“none” (22.8%) currently comprise a large number of people in the United States. The composition of professional chaplains seems different from U.S. adults, but the comparison should be treated cautiously due to missing data.

**Table 3.** Demographics of CPE students training for professional chaplaincy<sup>a</sup> in 2016 (N = 1249).

Variable	Students N (%)
Age	
Mean (SD)	49.8 (16.1)
<25	1 (0.1)
25–44	472 (37.8)
45–64	595 (47.6)
65 +	147 (11.8)
Missing	34 (2.7)
Gender	
Female	582 (46.6)
Male	635 (50.8)
Other	8 (0.7)
Missing	24 (1.9)
Religious affiliation	
Buddhist	28 (2.2)
Catholic	136 (10.9)
Christian orthodox	14 (1.1)
Evangelical protestant	429 (34.4)
Historically Black Churches	45 (3.6)
Jewish	44 (3.5)
Mainline protestant	409 (32.8)
Muslim	5 (0.4)
Other faiths	90 (7.2)
Missing	49 (3.9)
Race/ethnicity <sup>b</sup>	
Asian/Southeast Asian/Pacific Islander	76 (6.1)
Black/African American	281 (22.5)
Caucasian/White	756 (60.5)
Hispanic/Latino	37 (3.0)
Multiracial	39 (3.1)
Other	16 (1.3)
Missing	44 (3.5)
Center/employing organization type	
Hospital	1,021 (81.8)
Hospice	5 (0.4)
VA hospital	98 (7.8)
Other healthcare	20 (1.6)
Other	97 (7.8)
Faith community	8 (0.6)
Missing	–
Region	
Midwest	288 (23.1)
Northeast	213 (17.1)
South	528 (42.3)
West	219 (17.5)
Non-US	1 (0.0)

<sup>a</sup>CPE students completing a unit of Level II CPE between May and August of 2016 used as proxy.

<sup>b</sup>Typically studies distinguish between race and ethnicity; these constructs are presented together since the organizations providing data do not distinguish.

**Table 6** reports demographic variables of particular interest about healthcare service users. The missing data present a challenge for interpretations about age among chaplains and users of healthcare, and thus should be treated cautiously. Interpretations for race and ethnicity are also difficult to discuss. As footnoted for **Table 6**, the manner in which professional chaplaincy organizations report and collect this type of data differ from the U.S. Census. There are potentially more non-Caucasian/non-White individuals

**Table 4.** Certified educator candidates and educators as of 2018.

Variable	CECs N (%)	Certified educators N (%)
<i>N</i>	101	709
Age		
Mean (SD)	47.7 (9.7)	60.4 (11.9)
<25	–	–
25–44	36 (35.6)	66 (9.3)
45–64	55 (54.5)	285 (40.2)
65 +	2 (2.0)	214 (30.2)
Missing	8 (7.9)	144 (20.3)
Gender		
Female	52 (52.0)	320 (45.4)
Male	48 (48.0)	384 (54.5)
Other	–	1 (0.1)
Missing	–	–
Religious affiliation		
Buddhist	1 (1.0)	6 (0.8)
Catholic	3 (2.9)	66 (9.3)
Christian orthodox	–	4 (0.6)
Evangelical protestant	33 (32.7)	117 (16.5)
Historically Black Churches	8 (7.9)	24 (3.4)
Jewish	4 (4.0)	24 (3.4)
Mainline protestant	44 (43.6)	436 (61.5)
Muslim	1 (1.0)	4 (0.6)
Other Faiths	7 (6.9)	28 (3.9)
Missing	–	–
Race/ethnicity <sup>a</sup>		
Asian/Southeast Asian/Pacific Islander	2 (2.0)	18 (2.6)
Black/African American	27 (26.7)	64 (9.0)
Caucasian/White	54 (53.5)	222 (31.3)
Hispanic/Latino	6 (5.9)	12 (1.7)
Multiracial	3 (3.0)	17 (2.4)
Other	1 (1.0)	8 (1.1)
Missing	8 (7.9)	368 (51.9)
Region		
Midwest	36 (35.6)	193 (27.2)
Northeast	14 (13.9)	133 (18.8)
South	35 (34.7)	275 (38.8)
West	16 (15.8)	95 (13.4)
Non-US	–	–
Missing	–	13 (1.8)

<sup>a</sup>Typically studies distinguish between race and ethnicity; these constructs are presented together since the organizations providing data do not distinguish.

**Table 5.** Religious affiliations of professional chaplains compared to US adults.

Religious affiliation	Active Chaplains <sup>a</sup> N=5917 (%)	US Adults <sup>b</sup> N = 35,071 (%)	Difference (Chaplains–US adults) (%)
Buddhist	0.4	0.7	–0.3
Catholic	24.6	20.8	+3.8
Christian orthodox	0.5	0.5	0
Evangelical protestant	16.7	25.4	–8.7
Historically Black churches	2.0	6.5	–4.5
Jewish	9.3	1.9	+7.4
Mainline protestant	30.3	14.7	+15.6
Muslim	0.1	0.9	–0.8
Other faiths <sup>c</sup>	2.3	4.3	–2.0
Unaffiliated/“Nones” <sup>rd</sup>	–	22.8	–
Missing	13.8	0.6	+13.2

<sup>a</sup>As of January 2018.

<sup>b</sup>Pew Research Center 2015 proportions of US population.

<sup>c</sup>Other includes: other Christian, Jesus Christ of latter day saints, Hindu, Jehovah’s Witness, other faiths, other world religions.

<sup>d</sup>Individuals who identify as “unaffiliated” or “don’t know” in Pew survey.

**Table 6.** Chaplain characteristics 2018 and 2016 users of healthcare (office visits and other outpatient visits) and overnight hospitalized stays (1 or more overnight stays).

Variable	Active chaplains N (%)	Users of healthcare <sup>a</sup> N (%)	Overnight hospital stays <sup>b</sup> N (%)
<i>N</i>	5917	200,165,000	23,300,000
Age <sup>c</sup>			
18–44	619 (10.4)	85,099 (42.5)	6266 (26.9)
45–64	2655 (45.0)	71,233 (35.6)	6300 (27.0)
65+	1129 (19.1)	43,835 (21.9)	7295 (31.3)
Missing	1514 (25.5)	—	—
Gender			
Female	2931 (49.5)	110,105 (55.0)	13,600 (58.4)
Male	2851 (48.2)	90,061 (45.0)	9700 (41.6)
Missing	135 (2.3)	—	—
Race/ethnicity <sup>d</sup>			
Asian/Southeast Asian/Pacific Islander	204 (3.5)	11,837 (6.0)	825 (3.5)
Black/African American	533 (9.0)	24,090 (12.0)	3072 (13.3)
Caucasian/White	3775 (63.8)	158,572 (79.2)	18,513 (79.5)
Hispanic/Latino	127 (2.1)	— <sup>e</sup>	— <sup>e</sup>
Multiracial	6 (0.1)	3578 (1.8)	620 (2.7)
Other	215 (3.6)	1864 (1.0) <sup>f</sup>	234 (1.0) <sup>f</sup>
Missing	1057 (17.9)	—	—

<sup>a</sup>Frequency distribution (in thousands) of those with at least one office visit to doctors or other healthcare professionals in the past 12 months among adults ages 18 and over, by selected characteristics, Table A17b, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2016a.

<sup>b</sup>Frequency distribution (in thousands) of those with at least one hospital stay during the past 12 months, by selected characteristics, Table P 10b, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2016b.

<sup>c</sup>This project does not include those aged 17 years old and younger which is 15% of the total frequency of overnight hospital stays.

<sup>d</sup>Typically, studies distinguish between race and ethnicity; these constructs are presented together since the organizations providing data do not distinguish between these constructs.

<sup>e</sup>Hispanic/Latino is not provided as a race in the CDC data, rather as an ethnicity which includes the races provided.

<sup>f</sup>Other race/ethnicity category includes American Indian only.

hospitalized or using healthcare (20.5 and 20.8%, respectively) than active chaplains (18.3%), but missing data limits this consideration.

## Discussion

Little is known about how individuals move into healthcare chaplaincy or the characteristics of those working in the profession. To begin to describe this workforce, this paper explored who is working as a professional chaplain in healthcare, Certified Educators, CECs, and CPE students training to be healthcare chaplains. After examining data from approximately 6000 chaplains, over 700 Certified Educators, over 100 CECs, and over 1200 students, we concluded that the amount of missing data requires us to treat any summary of the characteristics of the profession or people training for the profession as preliminary. In this spirit, we found that these groups tend to be over 45 years old, Mainline Protestant, and Caucasian/White. Students and CECs appear to be more diverse than chaplains with higher proportions of Evangelical Protestants, individuals under 45 years old, and higher proportions of African American/Black identifying individuals. From the limited data available, there appears to be a balance between men and women among all groups.

The findings seem similar to previous research. As reported by Cadge (2012) chaplains continue to identify as Mainline Protestant and Caucasian/White. Additionally, the

geographical location of chaplains based on professional organization affiliation mirror the geographic distributions of people from different religious backgrounds according to the Pew Research Center findings (2015). Members of the Jewish chaplaincy organization reside in the Northeast which is similar to the 2007 and 2014 findings from the Pew Research Center (2015). The highest proportion of Christian individuals resided in the South in both 2007 and 2014 (Pew Research Center, 2015) which is consistent with our findings for the APC membership. Only slightly different is the location of Catholic chaplains who appear to reside more commonly in the Midwest versus in the Northeast as identified by the Pew Research Center.

After examining the primary demographic variables and other characteristics, questions arise about how different populations move into chaplaincy. For example, when considering the age of the professional chaplains, who are mostly over 45 years old, as are the CECs and Certified Educators, one may wonder about how millennials will move into the profession. Or, if most chaplains identify as baby boomers, the professional associations may need proactive plans to respond to their retirement just as other professional fields have begun to consider (Leider, Coronado, Beck, & Harper, 2018). CPE students appear slightly younger, but the majority of them are still over 45 years old. Perhaps chaplaincy consists primarily of second career individuals and professional shifts are needed to bring in younger cohorts. If the latter is needed, these shifts may also need to consider millennials who identify as “unaffiliated/none” since close to one-fourth of the U.S. population identifies as such.

Questions also arise for pathways into chaplaincy for African Americans/Blacks in our samples. A combined snapshot of the proportions shows that 8.7% of BCCs are African American/Black and 9% of all professional chaplains, but 22.5% of CPE students. Might a greater number of African Americans want to become professional chaplains that are actually doing so? Additionally, with 26.7% of CECs identifying as African American there maybe African Americans in the pathway to become Certified Educators. ACPE and the professional chaplaincy organizations will need to look again in 5 years to see if they have become supervisors and professional chaplains or if barriers emerged along the pathway.

As mentioned earlier, the fastest growing populations in the U.S. identify as either Asian or Hispanic (Humes et al., 2011). Only 3.7% of professional chaplains identify as Asian/Southeast Asian/Pacific Islander and only 2.0% identify as Hispanic/Latino. The challenge for the profession to attend this shift may also require increased attentiveness to language, culture, and religion. The data considered here lacks exploration of the role of spoken-language which could also impact concordance or discordance between care-receiver and spiritual care-provider.

Examining race/ethnicity more broadly we see the combination of all non-White individuals is highest among CECs and students (38.6 and 36.8%, respectively). In contrast, only 18.1% of BCCS and 18.3% of professional chaplains identify as non-White. The people needed to diversify the profession appear to be in the pathway. We encourage the professional organizations to examine any barriers people of color may face in becoming BCCs and Certified Educators and develop initiatives to address those barriers.

Religious affiliation extends this conversation in a more complicated fashion. The prevalence of Mainline Protestants in our samples is definitely evident among Certified

Educators and CECs. Although the U.S. has a large proportion of Evangelical Protestants, those numbers ebb and flow within professional chaplaincy. Religious affiliation can often interact with other demographic factors and raises questions of how training impacts certain groups' abilities to move through the pathways into the profession. Often, professional chaplains discuss shifting religious affiliations during or after their education. Does the difference between students and chaplains identify the impact of CPE education on how individuals religiously affiliate? How does the proportion of Mainline Protestants in ACPE influence curricula or certification competencies? Does the profession move individuals into the profession in a theological or existential manner that supports some cultural combinations of race, ethnicity, religious identification, etc. more than others? Further examination is warranted to consider these questions.

Many demographic questions remained unanswered due to missing data. It appears that the groups at risk for missing information include the non-BCCs and Certified Educators. The most commonly missing variables included age and race/ethnicity. The challenge of missing data is not unique to professional chaplaincy. Expansion and improvement of data infrastructure plagues a majority of the allied health services workforce (Fraher, Harden, & Kimball, 2011). Researchers have explored various ways to enumerate the Public Health Workforce (University of Michigan/Center of Excellence in Public Health Workforce Studies and University of Kentucky/Center of Excellence in Public Health Workforce Research and Policy, 2012). Moving into an evidence-based paradigm (Fitchett, 2017; Fitchett, White, & Lyndes, 2018) requires professional chaplaincy organizations to become more intentional about their data collection, reporting, and analyses to build research capacity (Hulcombe, Sturgess, Souvlis, & Fitzgerald, 2014; Ward, Elphinston, Wall, Schwarz, & Gordon, 2018). As healthcare shifts to value-based payment models, data, and the analysis of data for allied health professionals will become even more important. The emphases to improve quality and reduce costs may require healthcare systems to "reduce staffing costs, increase productivity, change skill mix configurations, and redesign the delivery of health care services" (Fraher et al., 2011, p. 43). Both departments, individual chaplains, and the professional organizations need to consider creative strategies to support data infrastructure improvements and to keep existing data up-to-date.

## Conclusions

This paper has provided a baseline sketch of chaplain demographics, religious affiliations, and other characteristics and identified challenges for diversification efforts for professional chaplains. Although the analysis does not directly identify pathways that facilitate or limit movement into the profession, it identified potential pathways that exist for African Americans/Blacks becoming Certified Educators and that underrepresented minorities are not as prevalent among active chaplains as in the CPE student body. This report should inform managers who seek to hire more diverse chaplains and CPE programs who want equal representation of all populations within their student body. However, these results must be considered preliminary due to extensive missing data. A much different sketch could emerge when professional organizations implement data infrastructure improvements.

## Recommendations

Once there is consistent collection and availability of member data across all the professional and education organizations, then professional chaplaincy will have the foundation to explore workforce trends with trends in healthcare service delivery and operations. Knowing the composition of the chaplaincy workforce and where chaplains are employed supports efforts to define the need for and availability of professional spiritual care. Fraher et al. (2011) suggest that allied health professionals begin with building a minimum data set with data points about the chaplains “supplied” to institutions, meaning their demographic profiles as well as other salient characteristics, and the positions those chaplains are “demanded” to fill, such as the employer characteristics.

In light of this baseline exploration, the research team suggests a progressive move to improve the chaplaincy workforce database. Our suggestions, adapted from Fraher et al. (2011), come in the form of a three-year and two-phase implementation plan (detailed in [Table 7](#)). In Phase 1, we suggest professional chaplaincy organizations focus on combining efforts. A unified database will permit better workforce analysis and planning for organizational initiatives. More specifically, combining efforts from across professional organizations will maximize usability of data and minimize duplication efforts. This means creating one database of professional chaplains, who they are, where they work, and who employs them. When the profession is able to pull such a database together, leaders in the profession can more easily analyze not only trends in demographics, religious affiliations, and workforce changes and compare such data on a nationwide level or with other large publicly available datasets.

The second phase, which we suggest take place over 24 months, would include the updating and collection of individual level data. Data points for consideration are listed in [Table 7](#). Most important for this phase will be the areas in which the organizations will need to agree upon category labels, such as member type. Differentiation between those members who are retired, but still active (perhaps as an educator), may also need consideration.

A separate and important recommendation also includes the initiation of data collection about the “demand” components of professional chaplaincy. The “demand” for chaplains includes employer information such as how many full-time chaplains or per-diem workers an organization employs, the number of FTE positions occupied, percent of positions vacant, existence of a CPE Center, or CPE Unit offerings. Ideally, this information would be updated on an annual basis by chaplaincy managers via an online survey. Capturing data about the “demand” side of a profession (Fraher et al., 2011) will help leaders of the workforce begin to identify how it meets the level of need around it or how it is not adequately equipped to do so. Unlike demand for other services, the demand for professional chaplains may also have to consider the prevalence of spiritual distress in a population or requirements for clinical care team composition. As ACPE and the professional organizations continue to refine their educational processes, consideration for the number and flow of student chaplains will also become important.

The goal of [Table 7](#) is to initiate the conversation. Data collection could be an endless effort and debate but starting with a minimum recommendation will help the profession move toward an evidence-based paradigm. Similar to the *Profile of the Social Work Workforce* (Salsberg et al., 2017), chaplaincy needs ongoing data that paints the picture of

**Table 7.** Proposed three-year and two-phase implementation plan for data infrastructure improvements.

Phase	Suggested timeframe
Phase 1: Data infrastructure	
• Combine organizational data collection efforts	12 months
Phase 2: "Supply" level data: update or collect individual level baseline data	
• Member-level demographic data	24 months
Unique identifier*	
Name	
Home address	Street, city, state, zip, country
Gender	Female, male, queer, transgender, non-conforming, other
Race	Use U.S. census format
Ethnicity	Use U.S. census format
Primary language	
Secondary language	
Disability*	
• Other member characteristics	
Member type*	(e.g. active, retired, lifetime, emeritus)
Religious affiliation	Use pew research center format
Denominational affiliation	Use pew research center format
• Educational information	
Master's degree type	MDiv, MA, MTS, other
School, graduation Year	
Master's degree type (2)	MDiv, MA, MTS, other
School, graduation Year	
Doctorate degree type	DMin, PhD, EdD, Other
School, graduation Year	
Total CPE units	
Most recent CPE level I Unit	Center, year completed
Most recent CPE level II Unit	Center, year completed
Specialization residency	Specialization area, center, year completed
• Certification information	
Certification type*	
Year of certification	Active, inactive, not applicable
Certification status	
• Employment information	
Employment status	Employed, unemployed, retired, working in another field, other
Current employer	Name
Address	Street, city, state, zip, country
Employer type	Corporate, corrections, faith community, hospital, hospice, long term care, military, religious/denominational office, university, other
Hospital type (optional)	Academic medical center, community hospital, veteran's administration medical center, for-profit hospital, pediatric hospital, other
Primary position type	Administrative, chaplain, certified educator, director, faculty, other
Secondary position type	Administrative, chaplain, certified educator, director, faculty, other
Total hours per week	Full-time, part-time, per diem, other
Primary clinical caseload	Acute care, oncology, outpatient, palliative care, pediatrics, perinatal, transplant, non-specific, other

\*Member organizations agree upon common taxonomy for categories.

the workforce. Professional chaplains know that "without hard data to support evidence-based decisions the allied health professions will continue to struggle to have a seat at the policy-making table" (Fraher et al., 2011, p. 48). To remain relevant in an environment of constant evolution professional chaplaincy cannot lag in data collection and analysis.

## ***Limitations***

Although this paper did not collect data from all existing chaplaincy organizations, it collected data from what are arguably the professional chaplaincy and spiritual care education organizations with the strongest standards for certification, accreditation, and professional practice. Reaching outside of these organizations may have provided a wider religious sample, but standards would then begin to vary too greatly.

## ***Future research***

Future research will need to consider what users of chaplaincy services want with regards to the chaplains they encounter. Leveraging the 2020 U.S. Census results, which will be available in January 2022, and the Pew “How Religious is Your State” report, the professional chaplaincy organizations have an opportunity to understand where people learn, live, work, play, and pray to guide their strategic planning. A more detailed examination of the workforce will be needed. Future exploration of the workforce will need to include more organizations as well as to discern how to engage those not participating in a professional organization. Once the profession understands its memberships it will be better equipped to support cultural and diversity initiatives in healthcare and within its own operations. Increasing awareness of its membership will assist professional chaplaincy with educating and developing professionals that are both reflective of the populations they serve and culturally competent within all settings. Collecting and revising membership data on an annual basis through one comprehensive, electronic self-administered survey creates a monumental resource for furthering chaplaincy research and professionalization.

Additional suggestions for future research include identifying if service users prefer a chaplain more or less like them and how that concordance could impact clinical outcomes. Research is also needed about the pathways and barriers into chaplaincy; knowing more about how the workforce has or has not changed over time would strengthen this examination. Other research could explore trends in chaplain characteristics with the trends in healthcare, religious or spiritual practice. When the data points on the demand-side of chaplaincy are collected and recorded, research could even examine if “chaplaincy deserts” exist, trends in hiring/retiring, provide an avenue to help students find placement post-CPE, or provide options for data comparisons with large publicly available datasets (e.g. Hospital Compare).

## ***Acknowledgments***

We express our gratitude to the leadership and staff of APC, NACC, NAJC, and ACPE who provided guidance and the data for the project. We also express our gratitude to Amy Greene, Sandra Katz, David Lichter, Ron Oliver, and John Overvold for their feedback about an earlier version of this report.

## ***Funding***

This work was supported by the Association of Clinical Pastoral Education with a 2017 Innovative Grant Award.



## ORCID

Kelsey B. White  <http://orcid.org/0000-0002-4806-1414>

## References

Abu-Ras, W. (2011). Chaplaincy and spiritual care services: The case for Muslim patients. *Topics in Integrative Health Care*, 2(2), 1–15.

Abu-Ras, W., & Laird, L. (2011). How Muslim and non-Muslim chaplains serve Muslim patients? Does the interfaith chaplaincy model have room for Muslims' experiences? *Journal of Religion and Health*, 50(1), 46–71. doi:[10.1007/s10943-010-9357-4](https://doi.org/10.1007/s10943-010-9357-4)

Ai, A. L., & McCormick, T. R. (2010). Increasing diversity of Americans' faith alongside baby boomers' aging: Implications for chaplain intervention in health settings. *Journal of Health Care Chaplaincy*, 16(1–2), 24–41. doi:[10.1080/08854720903496126](https://doi.org/10.1080/08854720903496126)

Association of Professional Chaplains. (2017). *2017–2019 Strategic plan*. Retrieved from <http://www.professionalchaplains.org/content.asp?pl=24&sl=727&contentid=727>.

Benitez, J. A., Creel, L., & Jennings, J. (2016). Kentucky's Medicaid expansion showing early promise on coverage and access to care. *Health Affairs*, 35(3), 528–534. doi:[10.1377/hlthaff.2015.1294](https://doi.org/10.1377/hlthaff.2015.1294)

Cadge, W. (2012). *Paging God: Religion in the halls of medicine*. Chicago, IL: University of Chicago Press.

Cohen, J. J., Gabriel, B. A., & Terrell, C. (2002). The case for diversity in the health care workforce. *Health Affairs*, 21(5), 90–102. doi:[10.1377/hlthaff.21.5.90](https://doi.org/10.1377/hlthaff.21.5.90)

Cooper, L., & Roter, D. (2002). Patient-provider communication: The effect of race and ethnicity on process and outcomes of health care. In B. D. Smedley, A. Y. Stith, & A. R. Nelson (Eds.), *Unequal treatment: Confronting racial and ethnic disparities in healthcare*. Washington, DC: National Academy Press.

Cooper-Patrick, L., Gallo, J. J., Gonzales, J. J., Vu, H. T., Powe, N. R., Nelson, C., & Ford, D. E. (1999). Race, gender, and partnership in the patient-physician relationship. *JAMA*, 282(6), 583–589. doi:[10.1001/jama.282.6.583](https://doi.org/10.1001/jama.282.6.583)

Dee, T. S. (2004). Teachers, race, and student achievement in a randomized experiment. *Review of Economics and Statistics*, 86(1), 195–210. doi:[10.1162/003465304323023750](https://doi.org/10.1162/003465304323023750)

Dee, T. S. (2005). A teacher like me: Does race, ethnicity, or gender matter? *The American Economic Review*, 95(2), 158–165. doi:[10.1257/000282805774670446](https://doi.org/10.1257/000282805774670446)

Fitchett, G. (2017). Recent progress in chaplaincy-related research. *Journal of Pastoral Care and Counseling: Advancing Theory and Professional Practice through Scholarly and Reflective Publications*, 71(3), 163–175. doi:[10.1177/1542305017724811](https://doi.org/10.1177/1542305017724811)

Fitchett, G., White, K. B., & Lyndes, K. (2018). *Evidence-based healthcare chaplaincy: A researcher reader*. London, UK: Jessica Kingsley Publishers.

Fraher, E. P., Harden, B., & Kimball, M. C. (2011). An international call to arms to improve allied health workforce planning. *Journal of Allied Health*, 40(1), 43–49.

Gurin, P. (1999). Expert Report. "Gratz et al. v. Bollinger, et al." No. 97-75321 (E.D. Mich.); "Grutter, et al. v. Bollinger, et al." No. 97-75928 (E.D. Mich.). *Equity and Excellence in Education*, 32(2), 36–62.

Hulcombe, J., Sturgess, J., Souvlis, T., & Fitzgerald, C. (2014). An approach to building research capacity for health practitioners in a public health environment: An organizational perspective. *Australian Health Review*, 38(3), 252–258. doi:[10.1071/AH13066](https://doi.org/10.1071/AH13066)

Humes, K. R., Jones, N. A., & Ramirez, R. R. (2011). *Overview of race and Hispanic origin: 2010 Census Briefs*. U.S. Department of Commerce, Economics and Statistics Administration. Retrieved from <https://www.census.gov/popluation/www/socdemo/hispanic/hispanic.html> and [www.census.gov/popluation/www/socdemo/race/race.html](https://www.census.gov/popluation/www/socdemo/race/race.html).

King, W. D., Wong, M. D., Shapiro, M. F., Landon, B. E., & Cunningham, W. E. (2004). Does racial concordance between HIV-positive patients and their physicians affect the time to

receipt of protease inhibitors? *Journal of General Internal Medicine*, 19(11), 1146–1153. doi: [10.1111/j.1525-1497.2004.30443.x](https://doi.org/10.1111/j.1525-1497.2004.30443.x)

LaVeist, T. A., & Pierre, G. (2014). Integrating the 3Ds—social determinants, health disparities, and health-care workforce diversity. *Public Health Reports*, 129(1\_suppl2), 9–14. doi: [10.1177/00333549141291S204](https://doi.org/10.1177/00333549141291S204)

Leider, J. P., Coronado, F., Beck, A. J., & Harper, E. (2018). Reconciling supply and demand for state and local public health staff in an era of retiring baby boomers. *American Journal of Preventive Medicine*, 54(3), 334–340. doi: [10.1016/j.amepre.2017.10.026](https://doi.org/10.1016/j.amepre.2017.10.026)

MacCartney, S., Bishaw, A., & Fontenot, K. (2013). *Poverty rates for selected detailed race and hispanic groups by state and place: 2007–2011*. American Community Survey Briefs, U.S. Department of Commerce. Issued February 2013. ACSBR/11-17. Retrieved from <https://www.census.gov/library/publications/2013/acs/acsbr11-17.html>

Malhotra, J., Rotter, D., Tsui, J., Llanos, A. A. M., Balasubramanian, B. A., & Demissie, K. (2017). Impact of patient-provider race, ethnicity, and gender concordance on cancer screening: Findings from medical expenditure panel survey. *Cancer Epidemiology Biomarkers and Prevention*, 26(12), 1804–1811. doi: [10.1158/1055-9965.EPI-17-0660](https://doi.org/10.1158/1055-9965.EPI-17-0660)

McDermott, K. W., Elixhauser, A., & Sun, R. (2017). *Trends in hospital inpatient stays in the united states, 2005–2014*. Statistical Brief #325. June 2017. Rockville, MD: Agency for Healthcare Research and Quality.

Mitchell, D. A., & Lassiter, S. L. (2006). Addressing health care disparities and increasing workforce diversity: The next step for the dental, medical, and public health professions. *American Journal of Public Health*, 96(12), 2093–2097. doi: [10.2105/AJPH.2005.082818](https://doi.org/10.2105/AJPH.2005.082818)

National Association of Catholic Chaplains. (2018). *NACC 2018–20 strategic plan*. Retrieved from <https://www.nacc.org/wp-content/uploads/2018/06/Composite-of-Strategic-Plan-07.2018.pdf>.

Pew Research Center. (2015). America's changing religious landscape. Retrieved from <https://www.pewforum.org/2015/05/12/americas-changing-religious-landscape/>

Saha, S., Komaromy, M., Koepsell, T. D., & Bindman, A. B. (1999). Patient-physician racial concordance and the perceived quality and use of healthcare. *Archives of Internal Medicine*, 159(9), 997–1004. doi: [10.1001/archinte.159.9.997](https://doi.org/10.1001/archinte.159.9.997)

Saleem, R., Treasaden, I., & Puri, B. K. (2014). Provision of spiritual and pastoral care facilities in a high-security hospital and their increased use by those of Muslim compared to Christian faith. *Mental Health, Religion and Culture*, 17(1), 94–100. doi: [10.1080/13674676.2012.749453](https://doi.org/10.1080/13674676.2012.749453)

Salsberg, E., Quigley, L., Mehfoud, N., Acquaviva, K., Wyche, K., & Sliwa, S. (2017). *Profile of the social work workforce*. Report published for the Council on Social Work Education and National Workforce Initiative Steering Committee, George Washington University Health Workforce Institute and School of Nursing. Retrieved from <https://www.cswe.org/Centers-Initiatives/Initiatives/National-Workforce-Initiative>. (Accessed 1 March 2019).

Sullivan Commission on Diversity in the Healthcare Workforce. (2004). *Missing persons: Minorities in the health professions*. Washington, DC.: Sullivan Commission.

U.S. Department of Education. (2016). *Advancing diversity and inclusion in higher education: Key data highlights focusing on race and ethnicity and promising practices*. Report published by Office of Planning, Evaluation and Policy Development. Retrieved from <http://www2.ed.gov/rschstat/research/pubs/advancing-diversity-inclusion.pdf> (Accessed 1 January 2019).

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. (2016a). *National health interview survey*. Retrieved from [https://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/NHIS/SHS/2016\\_SHS\\_Table\\_A-17.pdf](https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2016_SHS_Table_A-17.pdf).

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. (2016b). *National health interview survey*. Retrieved from [https://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/NHIS/SHS/2016\\_SHS\\_Table\\_P-10.pdf](https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2016_SHS_Table_P-10.pdf).

University of Michigan/Center of Excellence in Public Health Workforce Studies and University of Kentucky/Center of Excellence in Public Health Workforce Research and Policy. (2012). *Strategies for enumerating the U.S. governmental public health workforce*. Washington, D.C.: Public Health Foundation. Retrieved from <http://www.phf.org> (Accessed 1 March 2019).

Ward, E. C., Elphinston, R. A., Wall, L. R., Schwarz, M., & Gordon, G. E. (2018). Research engagement and activity in an allied health workforce: Insights into departmental and organizational strategies. *Journal of Allied Health*, 47(4), 265–271C.