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## **AASLD Deepens Commitment to Diversity, Equity, and Inclusion**

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Abbreviations:

1. AASLD - Association for the Study of Liver Diseases
2. U.S. - United States
3. URM - Underrepresented Minorities
4. NIH - National Institutes of Health
5. ALD- Alcohol-associated Liver Disease
6. SEER - Surveillance, Epidemiology and End Result
7. MELD - Model for End-Stage Liver Disease
8. LT - Liver Transplantation
9. UNOS - United Network for Organ Sharing
10. WHO - World Health Organization
11. LGBTQIA+ - Lesbian, Gay, Bisexual, Transgender, Queer and/or Questioning, Intersex, and Asexual

## Introduction

On June 2, 2020, the American Association for the Study of Liver Disease (AASLD) joined colleagues in gastroenterology in a joint statement condemning racism and injustice and pledging to lead change. This pledge offers a commitment to “continue to advocate for diversity in our staff and governance, grant awards to research health care disparities, ensure quality care for all, and work tirelessly to reduce inequalities in health care delivery and access.”<sup>1</sup> To transform these words into action, it is important to understand the meaning of this statement and how AASLD can incorporate such commitment into its organizational goals. This white paper will explore issues of diversity, inclusion, equity, and

health disparities within hepatology. In contrast to a position paper that explains or justifies a particular form of care, or a narrative review that provides a comprehensive analysis of current knowledge on a topic, this white paper will provide understanding by: 1. Defining the issues to create common ground; 2. Summarizing the current state and future opportunities for diversity and inclusion among the hepatology workforce; 3. Exploring concerns regarding health disparities among patients with liver disease; and 4. Outlining actions that AASLD and its members can take to address diversity and equity for its workforce and patients (figure).

### **Definitions: Disparities, Unconscious Bias, Diversity, Inclusion, and Equity**

Disparities in the care and outcomes of U.S. racial and ethnic minorities with underlying liver disease are well-documented.<sup>2</sup> A health disparity is not simply a health difference, but worse health among socially disadvantaged people.<sup>3</sup> Recently, attention has turned to social determinants of health and their effects on health disparities and health outcomes.<sup>4</sup> However, not all disparities and inequity are the result of social issues outside of health care. The impact of disparate treatment by well-meaning clinicians on patient outcomes must be recognized. Providers take an oath to do no harm and may consciously reject negative images and ideas associated with disadvantaged groups, but they are also immersed in a culture where these groups are depicted in pejorative ways.<sup>5</sup> Implicit attitudes are feelings that often exist outside of conscious awareness.<sup>6</sup> These attitudes may influence providers' actions, resulting in bias in behaviors, relationship building, clinical investigation, and institution of medical care. Therefore, the elimination of disparities in liver disease is inextricably linked to the ability to recognize and mitigate these attitudes.

In addition to eliminating biased thinking from the workforce, it is equally important to focus on the demographic makeup of the workforce and the ability of every person within the workforce to be empowered to succeed and make change. Diversity is a quantifiable measure; it represents the numbers of people within various demographics and represents

different identities. Race, ethnicity, and gender are an integral part of diversity as are age, socioeconomic status, sexual orientation and gender identity, education, religion, physical appearance, and diversity of thought. However, a “diverse” environment does not equate to inclusion.<sup>7</sup> Inclusion is a feeling and a belief that one’s experiences provide a unique perspective to an organization, thus promoting a culture of respect, value, and belonging for all.<sup>8</sup> Equity is an established assurance that all people have the same access to opportunities while recognizing and eliminating barriers that have prevented advancement and growth. Equity involves examining institutional systems and resource distribution that may lead to disparities and ensuring fair treatment and equal opportunity.<sup>9</sup> A culture of diversity and inclusion is needed to promote equity in the healthcare workforce and patient care.

Diversity within medicine has been inextricably linked to improved patient outcomes and increased access to care. It also informs public policy, especially in underserved communities.<sup>10</sup> Focusing on diversity, equity, and inclusion and eliminating bias will allow providers to be more effective at problem solving, maximize engagement and innovation, and provide increased access to care.

### **Workforce Diversity**

Data from 2018 demonstrated that underrepresented minorities (URMs) comprised 33.4% of the population but made up only 9.4% of all full-time U.S. medical school faculty.<sup>11</sup> Of the general physician workforce, 11.2% were identified as URM (with race for 13.7% of active physicians unknown).<sup>11</sup> Data from gastroenterology divisions and societies are similar, with under 10% of U.S. gastroenterologists identifying as URM and with minimal change in the proportion of URMs over the last decade.<sup>11</sup> Similarly, 9.1% of gastroenterology fellows and 12.8% of transplant hepatologists identified themselves as URM in 2018-2019.<sup>12</sup> Recent AASLD membership data reveals comparable proportions, with 8.2% of members reporting

identification as URM (American Indian/Alaskan Native, Black/African American, Hispanic/Latino, and Native Hawaiian/Other Pacific Islander).

Recently, the AASLD Training and Workforce Committee surveyed the current hepatology workforce to predict the future demand for hepatology providers. In the survey, 4.4% of respondents identified themselves as URM. The model forecasted a significant deficit of hepatology providers over the next 15 years, and efforts to increase racial and ethnic diversity in the hepatology workforce could alleviate this impending deficit and expand opportunities for addressing disparities in healthcare delivery.<sup>13</sup> URM physicians are more likely to work in communities that are underserved and with limited healthcare access.<sup>14</sup> Non-white physicians are more likely to care for minority patients who are medically complex, economically disadvantaged, and receive Medicaid.<sup>15</sup>

Increasing diversity in the hepatology workforce directly impacts patient care. Participation in race-concordant physician-patient relationships has been shown to be deeply beneficial for patients, particularly for medical communication and adherence. While there are no specific data in terms of hepatology care, in the primary care setting, Black, Hispanic, and Asian patients were more likely than White patients to perceive receipt of better medical care from their predominantly White medical providers if they belonged to a different race or ethnic group.<sup>16</sup> Patients in race-concordant relationships report improved satisfaction and rate their physicians as more participatory and conducting longer visits.<sup>17</sup> Patients with race-concordant physicians self-reported greater adherence, whereas patients with race-discordant physicians report decreased mutual understanding, which correlates strongly with non-compliance.<sup>18</sup> In one study, Black patients with Black physicians were more likely to self-report receiving preventive care.<sup>19</sup> Patients who transition to language-concordant physicians have improved chronic disease management.<sup>20</sup> Language concordance improves appointment-keeping and medication adherence.<sup>21</sup> Counseling and adherence are vital to

the management of chronic liver conditions and should be considered as part of the significance of diversity in the hepatology workforce.

Increasing workforce diversity in academic hepatology may be particularly challenging given current data on National Institutes of Health (NIH) grant funding. From 2006-2010, White investigators comprised 64.6% of the pool of applicants applying for NIH-funded grants in the basic sciences, while Black applicants comprised only 1% of the pool.<sup>22</sup> This can be attributed to a paucity of Black postdoctoral fellows transitioning into faculty positions.<sup>23</sup> However, it has also been demonstrated that Black applicants are 10% less likely than White applicants to be awarded NIH research funding, after controlling for numerous variables, such as the applicant's educational background or publication record.<sup>24</sup> Furthermore, studies of physicians in academic medicine have identified specific challenges for URM physicians:

- Exclusion has been reported as isolation, due to feeling “outside the mainstream” and feeling “invisible” in a setting with few URM colleagues.<sup>25</sup>
- Invalidation has been exemplified by overt racism as well as subtle microaggressions.<sup>Error! Bookmark not defined.</sup>
- Structural biases have been cited as contributing to an unpleasant work experience for URM physicians and inhibiting their professional advancement.<sup>26</sup>

These challenges impose career advancement barriers and a psychological burden that contribute to attrition, especially in sub-specialties including hepatology, in which low rates of URM are more pronounced than in the general physician workforce.<sup>13,Error! Bookmark not defined.,27</sup>

## **Healthcare Disparities Among Patients with Chronic Liver Disease**

Chronic hepatitis C virus infection has been shown to disproportionately affect racial and ethnic minorities in the U.S., with African Americans and Native Americans having twice the prevalence of HCV compared to non-Hispanic Whites.<sup>28</sup> African American race was shown to be associated with non-initiation of direct-acting antiviral therapy and lower rates of achieving cure; similar findings were observed in Hispanic communities who experience higher rates of cirrhosis and hepatic decompensation than Whites.

While Asians account for over 40% of U.S. chronic hepatitis B virus infections, preventative services and medical management in this at-risk population remain grossly inadequate.<sup>29</sup> African Americans have a 2- to 3-fold higher prevalence of HBV compared to the general population, similarly reflecting low rates of screening and immunization despite heightened susceptibility to infection.<sup>30</sup> Asian and African American race are independent predictors of hepatocellular carcinoma development among HBV patients, but despite longstanding availability of safe and highly efficacious antiviral treatment for HBV, low rates of treatment persist in these populations.<sup>31</sup>

The growing epidemic of nonalcoholic fatty liver disease disproportionately affects racial and ethnic minorities and is the most common cause of chronic liver disease in all ethnic groups combined, accounting for over half of cases in a large prospective study.<sup>32</sup> The highest prevalence of NAFLD was observed in Japanese Americans (4.4%), followed by Latinos (3.1%) and Native Hawaiians (2.3%), with NAFLD being the most common cause of cirrhosis in these populations. The prevalence of non-alcoholic steatohepatitis is highest in Hispanics and lowest in African Americans, but the proportion of patients with advanced fibrosis has not been shown to differ between racial/ethnic groups.<sup>33</sup>

Alcohol-associated liver disease (ALD) is the second leading cause of chronic liver disease across racial and ethnic groups and is emerging as a leading indication for liver



transplantation in the U.S.<sup>33</sup> In a large, prospective study, Latinos had the highest prevalence of ALD (1.6%), and ALD was the underlying cause of cirrhosis for over one-fourth of Native Hawaiians (30.6%), Latinos (27.0%), and African Americans (25.6%).<sup>33</sup> Indeed, recent increases in cirrhosis-related mortality have been attributed to rising rates of ALD among young adult whites, Native Americans, and Hispanics.<sup>34</sup>

HCC disproportionately affects minority populations. Based on Surveillance, Epidemiology and End Results (SEER) cancer registry data during 2000 - 2010, Asians had the highest overall burden of HCC, and the largest proportional increases in HCC incidence were observed among Hispanic and African American populations.<sup>35</sup> While liver cancer mortality rates decreased among Asians/Pacific Islanders during this period (-1.6% per year), rates significantly increased among African Americans (2.4% per year), Whites (2.1% per year), and Hispanics (1.3% per year).<sup>36</sup> Importantly, liver cancer mortality rates among adults aged 50-64 years were significantly higher for African Americans than other racial/ethnic groups. Among patients with HCC meeting Milan criteria, Hispanics and African Americans are significantly less likely to receive curative therapy compared to non-Hispanic Whites, whereas Asians are more likely to receive curative therapy.<sup>37</sup>

Prior to the adoption of the Model for End-stage Liver Disease (MELD) score for liver allocation, data demonstrated that African Americans were underrepresented on liver transplantation (LT) waiting lists and among liver transplant recipients, accounting for less than 10% of each category.<sup>38</sup> Waitlist priority based on MELD score helped to reduce racial disparity resulting from the difference in severity of liver disease at listing, but did not address lower rates of and delayed referral for evaluation even among patients with insurance.<sup>39</sup> Moreover, United Network for Organ Sharing (UNOS) registry data from 2002 to 2012 demonstrated that African Americans had the lowest overall 5-year survival following LT.<sup>40</sup>

Interventions exist for addressing liver-related health disparities. A multidiscipline Alaskan leadership coordination plan was coupled with 50 years of continuous primary and specialty care effort in order to abate viral hepatitis in that state. The need for concerted effort was identified by recognizing that chronic liver disease was the eighth cause of death for Alaskan natives during 1969-2011.<sup>41</sup> In the early 1990's, hepatitis A screening revealed infection rates of 5-9% in Alaskan natives.<sup>42</sup> Hepatitis A vaccine was licensed in 1995 and vaccination of all Alaskan children over 2 years old ensued. By 2001 the Hepatitis A infection rate dropped 20-fold in the Alaskan native population.<sup>43</sup> In 1983, hepatitis B screening of Alaskan natives began, and immunization of susceptible persons was initiated.<sup>44</sup> Three years later, 84% of the population was screened, and 90% were immunized. Annual HBV infection incidence declined from 215 cases per 100,000 to 14 cases per 100,000.

In 2014, the World Health Assembly with the World Health Organization (WHO) established the goal of global eradication of viral hepatitis by 2030.<sup>45</sup> Infrastructure within WHO and a website of resources was established. An informational document was written, updated, and published. Stakeholder organizations became involved. Periodic progress toward targets has been assessed and shared. Although 2020 targets have not been reached, efforts continue to focus on opportunities to achieve viral hepatitis eradication.

### **Collective Action – What AASLD and its Members Must Do**

The year 2020 marked AASLD's 70<sup>th</sup> anniversary as a professional organization whose mission is "to *advance and disseminate the science and practice of hepatology, and to promote liver health and quality patient care*" in an effort of achieving its vision "to *prevent and to cure liver disease.*" In November 2018, the AASLD Governing Board approved a new strategic plan to ensure AASLD's future success as a valuable professional organization for its members and broader hepatology community.

One component of this strategic framework is a directive for fostering membership engagement to facilitate professional development and meaningful contributions to AASLD. From the diversity lens, AASLD must be intentional in fostering racial and ethnic diversity among its membership. Over 6600 professionals hold AASLD membership, but race/ethnicity membership data are limited, with data lacking for a quarter of AASLD membership. (Table) AASLD is not alone in its challenges to obtain membership data on race and ethnicity. A 2012 survey of 167 physician organizations revealed that only 8% collected membership data on race and ethnicity.<sup>46</sup> Collection of racial/ethnicity membership data is critical in helping organizations define the need for greater diversity and develop strategies for implementing programs and policies that will foster diversity. However, the ability to collect such data is based on assumptions that individuals categorize their identities as singular among binary choices and that these identities are self-certain and unchangeable.<sup>47</sup> Individuals may not identify with a specific race or ethnicity or may have life experiences that change beliefs over time about how to define their race or ethnicity, particularly if their backgrounds are varied or the culture in which they live influences their understanding about race or ethnicity. AASLD must communicate effectively to members about the value of collecting race/ethnicity membership data and be innovative in fostering reporting of race and ethnicity by its members. AASLD could survey members about views on the categorization of race and ethnicity to foster development of questions about race and ethnicity that members can more easily answer. To eliminate concerns about negative implications of race and ethnicity reporting at an individual level, AASLD could collect such data from its members through anonymous surveys rather than through membership application or renewal. Additionally, AASLD must make a commitment to be transparent in reporting such data.

AASLD also seeks to grow its activities and participation across membership categories. Data have demonstrated that most physician organizations with active diversity efforts sponsor educational activities for physicians and trainees that promote diversity and/or provide opportunities for its members to be involved in advocacy programs.<sup>48</sup> Programming

for AASLD's annual meeting (The Liver Meeting) includes a Diversity Workshop, and it is one of four sponsoring organizations for the annual Digestive Diseases Week Diversity Symposium. These programs should examine issues including implicit bias, cultural competence/humility, and equity. Additionally, AASLD should ensure greater incorporation of health disparities research into its scientific sessions. To increase representation among speakers, moderators, and program chairs, AASLD will develop an electronic speaker database, which will allow its members to input data about clinical and research interests and accomplishments in their areas of expertise, and it will allow participants to self-identify race and ethnicity.

AASLD has a rich history of advocacy work. Its "Call to Action to Advance Progress Toward Viral Hepatitis Elimination" and annual Liver Capitol Hill Day are recent examples of efforts to influence public health policies toward benefit for patients with liver disease. Such work should be more intentional in calls to action toward the elimination of racial and ethnic disparities in liver disease and liver transplantation. In order to broaden the impact of educational and advocacy efforts, AASLD should incorporate these efforts at regional, national, and international levels.

As AASLD also aims to lead in the discovery and implementation advances in liver care, it should invest in research efforts that are directed toward defining and eliminating racial and ethnic disparities in liver disease. The creation of research awards and grant funding for research in racial and ethnic disparities in liver disease and liver transplantation and for research conducted by its racially and ethnically underrepresented members would provide tangible evidence of a commitment to eliminate health disparities and support excellence in the research of its diverse members.

Data have shown that URM physicians have smaller academic networks and networks of lower reach compared to white physicians.<sup>49</sup> This impacts academic productivity and promotion and highlights the importance of mentorship, sponsorship, and active

engagement of URM in professional activities. Furthermore, many URM faculty conduct healthcare disparities research, which may include mixed method and qualitative work that is more challenging to publish in high impact journals. Presently, AASLD provides travel awards for trainees and junior faculty members to attend the annual meeting of the Network for Minority Health Research Investigators. AASLD has also sponsored a mentorship program, pairing its fellow membership with early career members to foster professional development mentorship. AASLD could establish a mentorship program that is designed specifically to promote the professional development of its underrepresented members. To foster publication of high-quality disparities research, AASLD could also appoint a special section editor on health disparities for its journals.

Additionally, efforts must be made to foster greater diversity in AASLD leadership. AASLD could establish a leadership development committee or task force to institute innovative strategies for increasing diversity among organizational leadership. The AASLD Governing Board recently approved a plan to have representation from its Inclusion and Diversity Committee on its Scientific Program Committee and Nominating Committee, an important first step in increasing diversity in AASLD leadership. Moving forward, it should track and publish data on the proportion of underrepresented membership appointments to standing committees and leadership positions since such data are limited. It should also seek to appoint more diverse group of members to committees and leadership roles and consider opportunities for leadership education and training for its underrepresented members that will foster leadership roles within AASLD.

An important consideration in diversity efforts of predominantly white professional organizations involves establishment of partnerships with minority medical organizations.<sup>50</sup> AASLD has established partnerships with international professional organizations that have increased awareness and access to educational resources and fostered opportunities for increased international membership. AASLD should consider partnership with minority medical organizations to increase interest in AASLD membership and hepatology careers,

expand educational resources for and research on health disparities, and enrich opportunities for mentorship and sponsorship for URM members.

Institutional and individual action are also crucial elements for promotion of diversity and inclusion. Institutional diversity has been shown to be an influential marker on advocacy, linkage to care models, patient care outcomes, organizational health, and financial profitability.<sup>51</sup> The question is often, “how can an individual or institution promote diversity and advocacy?” Institutionally, there needs to be a shift in diversity promotion from task to core belief.<sup>52</sup> This transition is often dependent on an intrinsic need for change either from leadership or faculty.<sup>53</sup> As an initial step, the creation of a task force can establish institutional goals, audit progress, and track change.<sup>54</sup> Since needs and objectives may differ between institutions, data collection and interpretation are required. Data on the ethnic and race composition of an institution’s patient population and faculty can facilitate a better understanding of needs and recruitment goals. When evaluating the composition of faculty and staff, additional data including language fluency, prior experience, and research background should be collected.

There has been substantial growth in the number of advanced practice providers within gastroenterology and hepatology in the last 20 years.<sup>55</sup> Thus, incorporation of data from advanced practice providers, nursing, ancillary and pharmacy staff is critical. Patient-centered programs focused on addressing healthcare disparities are unique and relatively new models, particularly within transplant. Error! Bookmark not defined. Thus, it is crucial for institutions to promote and advocate these practices. The development of such clinical-based systems should coincide with the formation of educational curricula focused on topics including implicit bias, healthcare-related disparities, and LGBTQIA+ issues.

Healthcare professionals remain key stakeholders on issues related to workforce diversity and advocacy for peers. Significant advancement will occur when most, if not all healthcare

professionals and leaders acknowledge the importance of workforce diversity.. Healthcare leaders must identify and retain faculty from underrepresented backgrounds and provide them with mentorship and opportunities for professional growth, including protected research time and leadership education. Individuals should seek opportunities to pursue research in diversity, inclusion, and healthcare disparities within hepatology. They should attend society-sponsored diversity workshops and participate in AASLD committees/special interest groups in order to support and shape diversity efforts. Additionally, AASLD surveys are vital to efforts aimed at promoting diversity, and members should participate in such surveys.

### **Conclusion**

To provide culturally competent care and ensure equitable opportunities for professional advancement of all stakeholders, it is critical for individuals, institutions, and organizations to have an informed understanding of diversity, inclusion and equity issues. Discrepancies in the diversity of the healthcare workforce and the composition of the communities it serves have deleterious effects on healthcare delivery in URM communities. Such differences suppress opportunities for office visits, diagnostic workup and medication adherence. Liver diseases are disproportionately more common within these communities, and URMs are diagnosed at later stages and are less likely to be offered curative treatment, including liver transplantation. AASLD must strive to understand these factors so it can reduce these healthcare disparities.

The recruitment of healthcare providers from underrepresented communities is paramount. Once realized, providers fulfill their promise to all patients. AASLD should actively seek URM members and provide opportunities for professional mentorship in order to increase the input of future hepatologists who will continue the critical work of ensuring equity in healthcare delivery and professional advancement.

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**Table. Distribution of AASLD Membership by Membership Category and Race/Ethnicity**

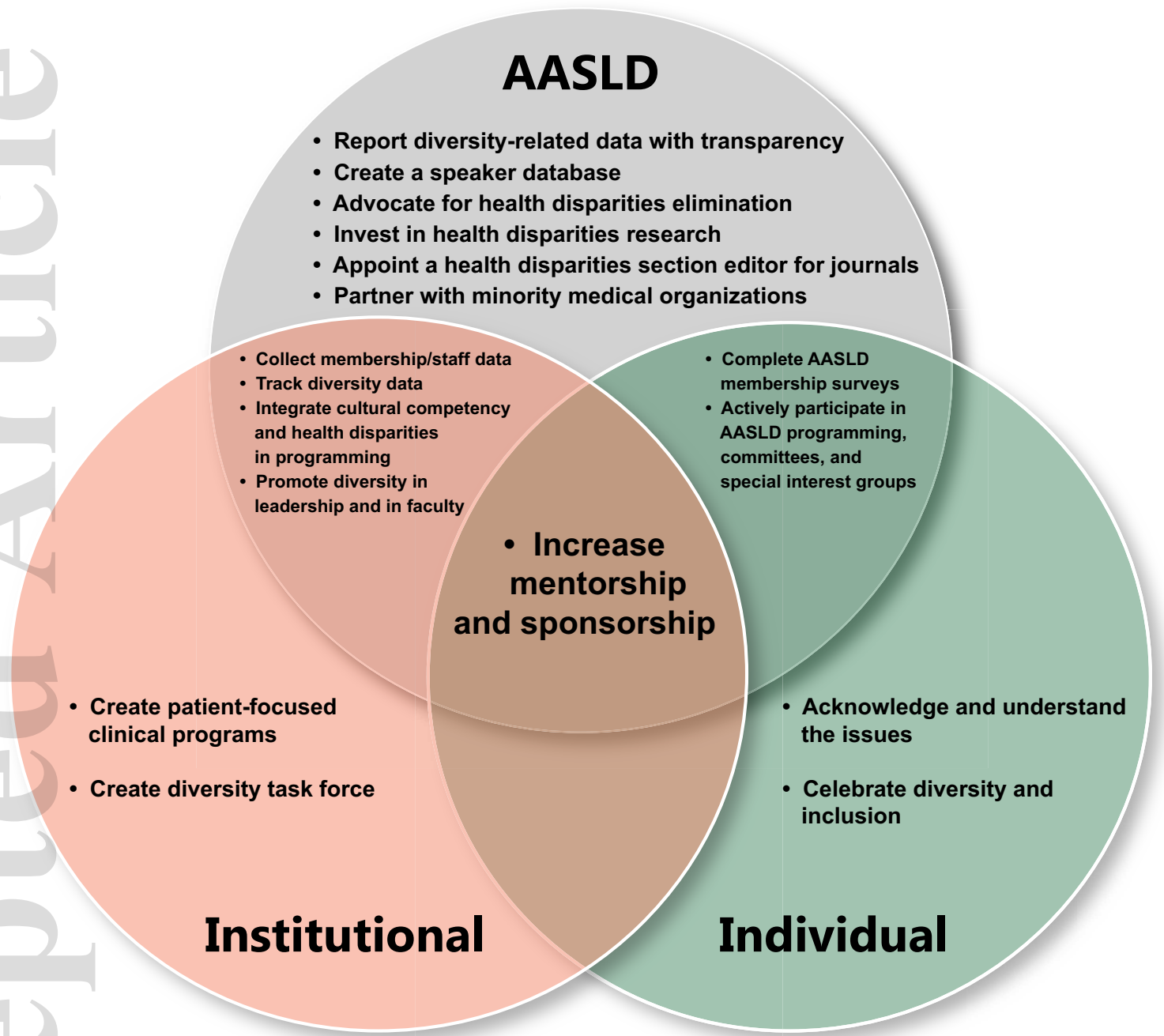
<b>Membership Category</b>	<b>Membership Description</b>	<b>Percentage of Overall Membership</b>	<b>Percentage of URMs within the membership category</b>	<b>Percentage of unknown race/ethnicity data in the membership category**</b>
Regular Membership	Any scientist, physician, or allied health professional who works in the United States, Canada, or Mexico	38.85%	9.01%	28.5%
International Membership	Persons who would qualify for regular membership but reside in countries outside of the United States, Canada, or Mexico	18.04%	4.65%	27.8%
Associate Membership	Allied health professionals (examples: nurses, nurse practitioners, physician assistants, pharmacists) who do not desire Regular, International, or Trainee membership	7.09%	9.84%	17.5%
Trainee Membership	Any physician, scientist, or researcher currently in training as certified by the director of their training program	17.07%	10.6%	14.9%
Student Membership	Any medical, nurse, or pharmacy student currently in training as certified by the director of their training program	2.25%	20.2%	14.1%
Corporate Affiliate Membership	Non-medically trained individuals in the health care industry	0.40%	0%	16.7%
Emeritus	Any Regular or International	4.89%	1.47%	71.3%

Membership	member who is at least 65 years old, retired from full-time employment, and has achieved at least 10 consecutive years of AASLD membership in good standing prior to request for Emeritus membership			
Fellow	Highest honor of membership that recognizes superior professional achievement in clinical or academic practice and in basic or clinical research, bestowed upon members who have made a significant contribution to the knowledge and/or practice of liver and biliary disease and are considered as leaders in their field	11.22%	8.55%	20.7%
Associate Fellow	Highest honor of Associate membership that recognizes professional achievement of advancing training, education, and commitment to the highest level of hepatology care in clinical, research, or academic practice	0.20%	0%	9.1%

<https://www.aasld.org/membership/become-member/member-benefits-categories>

URM (underrepresented minority): African American/Black, Native American and Alaska Natives, Hispanic/Latinx, Native Hawaiian and other Pacific Islanders

\*\* % missing includes members who answered  $\geq 2$  races, prefer not to answer, or other.



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