American Thoracic Society Action Plan Proposal to Increase Health Equality in Pulmonary, Critical Care and Sleep Medicine through Advocacy, Research, Clinical Care and Education

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Improving the Health Equality Mission of the ATS

Early in my tenure as the ATS Health Equality fellow it became apparent that there were two main foci of health equality within the ATS Mission:

- Improve health equality for patients with pulmonary disease, critical illness and sleep disorders
- Increase diversity and inclusion in Pulmonary, Critical Care and Sleep Medicine and specifically within the ATS

These two arms of the health equality mission can be seen through the lens of access, which can help focus targets for advancing health equality within the ATS:

- Advocacy is a key focus for increasing access to high quality and affordable health care, which is crucial to health equality for patients with respiratory diseases.
- Access to health care is crucial to international health equity.
- For underrepresented populations access to clinical trials as participants is an important mechanism for improving health care across the population.
- Access to research funding, and leadership positions are crucial to increasing diversity within our specialty.
- Education can increase awareness of health equality issues for trainees and expand advocacy.

I am extremely grateful to American Thoracic Society, and the ATS Health Equality Committee for the opportunity to complete this fellowship year. In addition to the support and mentorship of the ATS Health Equality Committee, the ATS Washington DC staff – Gary Ewart and Nuala Moore have provided an outstanding educational opportunity. The opportunity to learn from their leadership and expertise has been not only an invaluable educational experience but also extremely rewarding.

Health Equality: Mission Statement — A reflection of core organizational values and goals

Background

Mission statements are an essential document defining an institution purpose and expectations. They reflect an institutional identity to both internal and external audiences. These documents outline not only the values and direction of an institution but also may underscore performance outcomes.[1] Although there is extensive research examining mission statements in corporations and business[2] and law schools,[3] relatively limited research has been done in the analysis of mission statements in the medical field. For medical schools, a textual analysis of school mission statements showed that while there are core values that are nearly universal across medical school mission statements, there are key differences in mission statements among subgroups of medical schools including those that are public versus private or research focused versus social-mission schools.[4] An analysis of Mission statements of Canadian hospitals found that community commitment and respecting patient diversity as part of patient care were important values outlined in hospital mission statements.[5]

Updating the ATS mission statement to incorporate health equality goals and values would form the foundation for internal community core values and for promoting performance benchmarks.

The current ATS mission statement includes many of the values emphasized in hospital and medical school mission statements from the studies above, emphasizing, research, clinical care and public health and places these within a global mission:

- *To improve health worldwide by advancing research, clinical care, and public health in respiratory disease, critical illness and sleep disorders.*[6]

The ATS has already developed language to promotes health equality, defining health equality as:

- *The attainment of the highest level of respiratory health for all people. Achieving health equality requires valuing everyone equally, implementing and maintaining focused societal efforts to address avoidable inequalities and historical and contemporary injustices, and eliminating health care disparities.*[7]

Proposal:

- Incorporate existing ATS health equality values into the ATS mission statement

  Example:

  > To improve health worldwide ***for all people***, by advancing research, clinical care, public health ***and the elimination of health care disparities***, in respiratory disease, critical illness and sleep disorders.

Action item:

- Create a workshop of ATS leadership to revise the ATS mission statement to incorporate and reinforce already

Health Equality: Advocacy

ATS does extensive advocacy for patients with respiratory disease, critical illness, and sleep medicine. Health equality is essential to many of the issues our patients face.

Proposal:

- Incorporate a health equality framework into the discussion of all applicable health policy “talking points” including tobacco, environmental policy and tuberculosis programming and funding.
    - Tobacco
        - Tobacco Cessation services
        - E-cigarettes
        - Menthol
        - Lung Cancer Screening and Prevention

These issues are important to population respiratory health in general but disproportionately impact those patient populations that have traditionally been disenfranchised.

Health Equality Advocacy: Expand Access to Tobacco Cessation Services

In 1998 the U.S Surgeon General released a report on Tobacco Use Among U.S. Racial and Ethnic Minority Groups, finding that tobacco companies routinely market cigarettes more heavily to minorities and the density of cigarette advertisements is much heavier in minority neighborhoods.[8]

Background: Tobacco Cession

Medicaid enrollees have a higher smoking prevalence than the general population with 30.1% of adult Medicaid enrollees aged <65 years who smoke compared to 18.1% of U.S. adult population.[9] Evidence-based cessation treatments include counseling and seven Food and Drug Administration (FDA)–approved medications. The combination of counseling and medication use is more effective than using either alone, and combination medication therapy is more affective than monotherapy with nicotine replacement alone.[10] Most smokers require multiple attempts at smoking cessation before permanently quitting. The current status of state Medicaid cessation coverage falls well short of the *Healthy People 2020* target of full coverage in all 50 states and the District of Columbia.

As of 2014, all 50 states and the District of Columbia cover some cessation treatments for at least some Medicaid enrollees, but only seven states cover all nine treatments for all enrollees. Common barriers in 2014 include duration limits (40 states for at least some populations or plans), annual limits (37 states), prior authorization requirements (36 states), and copayments (35 states).[11] Using the example of Massachusetts, states could significantly reduce smoking-related morbidity and healthcare costs among Medicaid enrollees by providing coverage for all evidence-based cessation treatments, removing all barriers to accessing these treatments, promoting the coverage, and monitoring its use. [12,13]

The fact that most states currently do not provide and promote comprehensive Medicaid cessation coverage is a major missed opportunity to reduce smoking-related morbidity and health-care costs in a population with high smoking rates.[11] Similarly, for those purchasing health insurance through state or federal exchanges, the Essential Health Benefits does not require comprehensive tobacco cessation coverage and is a missed opportunity to address smoking related morbidity and cost in a vulnerable population.

Proposal

- Health of our patients would be improved if Medicaid and the Essential Health Benefits for health insurance provided through state and federal exchanges required comprehensive tobacco cession coverage for enrollees: all available forms of evidence-based tobacco cessation – currently two forms of counseling and 7 FDA approved medication –without co-pay, pre-authorization, annual or life time caps.

Action Items

- This item was introduced and included in the to be submitted 114th Congress Health Equality and Accountability Act.
- Partner with sister organizations such as the American Lung Association and the Campaign for Tobacco Free Kids to promote both the above expansion of tobacco cessation services and promotion of such services to our patients
- Incorporated advocacy for expansion of tobacco cessation coverage into ATS State advocacy program

Health Equality Advocacy: Eliminate Menthol Flavored Cigarettes

Background: Menthol Flavored Cigarettes

Menthol acts a stimulant for on receptors that detect temperature and chemical irritation, and is used as an additive in approximately 90% of cigarettes manufactured in the US. While most contain imperceptible amounts of menthol, brands that contain between 0.1% and 1.0% of their weight in menthol are marketed as having a cooling sensation and a minty flavor. Menthol contributes to how a smoker perceives a cigarettes strength, harshness, taste and aftertaste. It interacts with both smoke and nicotine. These brands compose about 30% of the current market in the US. In 2009 the Family Smoking Prevention and Tobacco Control Act gave the FDA authority to regulate certain tobacco products in order to protect public health. This law specifically banned flavored cigarettes, except those with menthol. The law also created the Tobacco Products Scientific Advisory Committee (TPSAC), which was charged with producing a report on the impact of Menthol on public health specifically in children and minority populations. The TPSAC report published in 2011 recommended that the removal of menthol cigarettes would benefit public health. While research has not shown that smokers of menthol cigarettes are at greater disease risk than those who smoke non-menthol cigarettes, evidence shows that menthol cigarettes increase the rate of smoking initiation particularly among adolescents and reduce rate of cession particularly among African-Americans.

For new or younger smokers the advantage for menthol cigarettes is that menthol can mask the harshness and discomfort of inhaling smoke deeply. A large study showed that initiating smoking with menthol cigarettes was more likely to lead to established smoking. A study that reviewed tobacco industry documents showed that found that the tobacco industry manipulated menthol levels in cigarettes and introduced new menthol brands to gain market share, particularly among adolescents.

More than two-thirds of African-American smokers use menthol cigarettes compared to approximately 30% of White Americans. The tobacco industry routinely markets menthol tobacco products to the African American community. Menthol cigarettes are routine marketed with images of “freshness” and reduced risk, which may contribute to higher smoking prevalence and decreased rates of smoking cessation. Further animal studies have shown that taste and other sensory stimuli substantially enhance the persistence of self-administered drug.

Based on the TPSAC report from 2011 to 2020 the availability of menthol cigarettes would be associated with approximately 17,000 more premature deaths and 2.3 million more new smokers than would be the case without the availability of menthol cigarettes. Menthol cigarettes adversely affect U.S. public health by increasing the number of young adults smokers who try cigarettes, increasing the number of established smokers, and reducing the number of smokers who quit, and are disproportionately targeted at minorities. The FDA should immediately exercise its regulatory control and enact a ban on menthol cigarettes.

- Directly targeted to African-Americans.
- Attractive and favored by novice smokers and by adolescents.
- Menthol potentiates nicotine addition and may be associated with increased ability to inhale cigarette smoke.
- Menthol is the only flavoring not currently prohibited by the 2009 FDA ruling however outlawing Menthol flavoring is within the scope of FDA authority.

Proposal

- Advocacy for the elimination of menthol flavoring should be a top priority for ATS

Action Items

- Opportunities include drafting and supporting documentation for the HEAA administrative document
- Identify avenues for improving ATS advocacy on this issue at the federal level including partnerships with sister organizations
- Partner this issue with advocacy on E-Cigarettes once the FDA ruling is announced, including tobacco regulation workshop as part of ATS 2017 in Washington, DC

Health Equality Advocacy: E-Cigarettes Regulation

Background

E-cigarettes are devices that mimic the cigarette experience by using a battery to vaporize nicotine solution stored in a cartridge that is then inhaled by the user.

In 2015, the Centers for Disease Control and Prevention (CDC) released national data showing that nearly 2.5 million middle and high school children used e-cigarettes in 2014, triple the amount from just the previous year. In this survey e-cigarette use has surpassed that of all other tobacco products including conventional cigarettes, and was the most common tobacco product used by Hispanic youths.[14] Curbing nicotine use among children is essential. As CDC Director Tom Frieden, MD, MPH, explained "nicotine exposure at a young age may cause lasting harm to brain development, promote addition, and lead to sustained tobacco use".[15] In fact the 2012 Surgeon General report found that 90% of all adult smokers first tried cigarettes as teens and that about three out every four teen smokers continue into adult hood.[16]

The growth of e-cigarettes is challenging state and local tobacco policies. Because most state and local tobacco laws were enacted before the development of e-cigarettes, many states are struggling with how to regulate e-cigarettes. To date, 3 states (ND, NJ and UT) have explicitly prohibited the use of e-cigarettes any place that traditional cigarettes are banned. Nine additional states have adopted policy to ban the use of e-cigarettes in various locations – as narrow as banning e-cigarettes on school property or in correctional facilities.[17] In some states, it is legal for children under 18 to buy e-cigarettes.

The federal government has not yet taken action regulatory action e-cigarettes but is expected is expected imminently to proposed rules to extend the Food and Drug Administration's authority over e-cigarettes, cigars and other tobacco products. Recently the

House Appropriations Committee passed a bill that severely undermines the FDA's potential authority by exempting all existing e-cigarette or cigars already on the market.

- E-cigarettes are becoming the most common used tobacco product among youth, including Hispanic adolescent. There is no current evidence to support a role of e-cigarettes for harm reduction.

Proposal

- Consider advocacy for FDA regulation of e-cigarettes as a tobacco product as Health Equality priority
- ATS 2017 in Washington DC presents a unique opportunity for the ATS to lead a workshop surrounding tobacco regulation including e-cigarettes

Action Item

- Develop an ATS workshop surrounding tobacco legislation focusing on recent issues: increasing smoke-free environments, menthol cigarettes and e-cigarette regulation for ATS 2017 in conjunction with sister organizations in Washington DC: American Lung Association, Campaign for Tobacco Free Kids, Centers for Disease Control and the Federal Drug Administration.

Health Equality Advocacy: Lung Cancer: Screening with Low Dose Computed Tomography

Background:

The American Cancer Society estimates that over 220,000 Americans will be diagnosed with lung cancer in 2015, with over 150,000 deaths from lung cancer anticipated this year alone. Lung cancer is the second most common cancer in both men and women, and the leading cause of cancer related death.[18] Research by the American Thoracic Society (ATS) showed that uninsured patients not only have higher rates of lung cancer, are also more likely to die when diagnosed with lung cancer. The authors found that this disparity in survival is likely related to limited access to care and advanced presentation of disease at time of lung cancer diagnosis.[19] A recent study showed that screening with low dose CT scan improved lung cancer death mortality by 20% for those with high risk of lung cancer through early detection.[20] This study highlights the deficiency in incorporating under represented minorities within clinical trials as only 4.5% of participants in this study were black, 2% were Asian, and <2% were Hispanic. Despite this subsequent analysis of this study has shown that while CT screening reduced morality in all groups Blacks had an increased benefit compared to other groups (hazard ratio 0.61 vs. 0.86).[21] Lung cancer screening, which has been embraced by physician professional societies including the American Cancer Society and the ATS, and has received a grade B recommendation from the USPSTF.[22] Lung cancer screening will almost certainly only be financially accessible to individuals with health insurance.

Proposal

- Recent research has shown that screening with low dose CT scan improved lung cancer death mortality by 20% for those with high risk of lung cancer through early detection.[20] The Centers for Medicare and Medicaid Services supports annual lung cancer screening for high-risk patients with low-dose computed tomography (LDCT).[20]

- Lung cancer screening may be beneficial on a population level. Screening may increase disparities in lung cancer care if minorities are cared for in centers less likely to pursue funding, if providers are less likely to offer screening to minority patients, or if minorities are more likely to pursue screening with higher rates of complication

Action Item

- The ATS in conjunction with NHLBI should promote studies of the attitudes and exposure within minority and rural population to lung cancer screening as well as the study of the epidemiology of lung cancer screening among minority at a national population

Health Equality: Health Equality and Accountability Act

Background

The Health Equity and Accountability Act (HEAA) includes provisions to improve cultural competence in federal health care programs and services. It requires the Secretary to engage in activities to improve the quality of and access to health care, including by expanding access to health care and health care insurance for immigrants, designating centers of excellence at public hospitals and other health systems serving minority patients. Further more HEEA sets forth programs to reduce health disparities affecting minorities and rural residents. Establishes an Office of Minority Health in the Department of Veterans Affairs (VA).[23]

Proposal

- HEAA represents an important priority for the Congressional Black Caucus and a forum for the ATS to broad scope of health equity priorities in pulmonary, critical care and sleep medicine

Action Items

- Health Policy fellow should attend the yearly CBC Brain Trust HEAA conference
- Continue to update respiratory health priorities with HEAA with new iteration of the bill
    - Lung Cancer
    - Tobacco Cessation
    - Asthma
    - COPD
- Develop relationships with congressional staff supporting HEAA
- Consider advocacy for inclusion of e-cigarettes as Health Equality priority within HEAA

Health Equality: Prioritize advocacy to support existing legislation as well as expansion and improvement of the Affordable Care Act

Background: The Affordable Care Act

Patients with respiratory diseases, critical illness and sleep disorders, who lack health insurance have routinely been shown in studies to have disparities in access to care and worse health outcomes. Since The Affordable Care Act (ACA) was passed in 2010, nearly 16.5 million Americans have gained health insurance. In June 2012 the Affordable Care Act underwent judicial challenge in the Supreme Court in *National Federation of Independent Business v Sebelius.* In this case the Court ruled that the that states could not be compelled to participate in the proposed Medicaid expansion, giving states the option to either expand Medicaid under the Affordable Care Act or to keep their pre-existing level of Medicaid benefits without risking loss of federal funding. As of March 2016 the number of states expanding Medicaid continues to increase and is currently at thirty-two. In 2015 year the ACA survived what may be the last significant judicial challenge to the law: *King v. Burwell*. The ACA may continue to come under legislative and executive challenge depending on the outcome of the upcoming presidential election.

Importantly, failure to expand Medicaid has important implications for minorities. Uninsured blacks with incomes that would qualify for Medicaid under expansion are more likely to live in states that continue to forgo Medicaid expansion.[24] Two of the six states with large Hispanic populations Florida and Texas, and all six of the states with the largest percentage of African-American residents are among those that continue to decline Medicaid expansion (Table 1). The Kaiser Family Foundation estimates that failure to expand Medicaid has left 3.6 million Hispanics and 2.9 million black adults ineligible for subsidized health plans.[24]

Table 1. 2016 Medicaid expansion among states with highest percentage of African-American and Hispanic residents

State	% African-American US census 2013[25]	% Hispanic US census 2013[25]	Expanding Medicaid in 2016
Mississippi	37.4		No
Louisiana	32.4		No
Georgia	31.4		No
South Carolina	27.9		No
Alabama	26.6		No
North Carolina	22.0		No
New Mexico		47.3	Yes
California		38.4	Yes
Texas		38.4	No
Arizona		30.0	Yes
Nevada		27.5	Yes
Florida		23.6	No

On a positive note, results from the 2014 National Health Interview Survey were recently released, and show that among Hispanics less than 65, the rate of uninsured decreased from 30.3% in 2013 to 25.2% in 2014. Among African-American the rate of uninsured dropped from 18.9% in 2013 to 13.5% in 2014. Nearly 1.7 million African-Americans have gained insurance through the ACA and roughly 8 million African-Americans with pre-existing medical conditions have gained coverage.[26] While these represent significant gains in coverage, they are still woefully behind the rates of coverage for non-Hispanic Caucasian Americans whose current rate of uninsurance is 9.8%[27]

- Access to high quality and affordable health care is crucial to health equality for patients with respiratory diseases
- Access cuts across social determinants of health including race, ethnicity, gender, immigration status and occupation
- The Affordable Care Act is the most important piece of health policy legislation with the largest potential to impact health equality

Proposal

- Prioritize advocacy to support expansion of and improvement of the Affordable Care Act

Action Items

- Develop and support state advocacy in key states where ACA expansion would highly benefit health equality and where advocacy might have high impact
- Advocate for improvement of health equality within the ACA at the federal level
    - Repeal Health insurance premium surcharge for tobacco smokers
    - Eliminate the Family Glitch
    - Support ACA Device Tax
    - Expansion of Essential Health Benefits

Health Equality: Leadership in International Health Equity

Background

Access is crucial to the delivery of health care for our patients in the US where there continue to be important disparities in access to quality healthcare despite insurance expansion including race, region, and immigration status. Access to quality health care in pulmonary and critical care medicine is also an important and growing global health issue.

The American Thoracic Society is an international organization, and has invested substantial resources in education and research international in resource limited countries with the highly successful MECOR program. International Health and access to health care is a leading health equity issue. ATS is perhaps uniquely poised to be a leader in international health equity in pulmonary and critical care medicine. A number of global health crises from the ongoing TB epidemic, which is now the leading infectious disease cause of death international, the Ebola outbreak, to migrant crisis as a result of the Syrian conflict poise unique challenges in our field.

Proposal

- ATS has invested substantial resources in education and research development internationally with the Global Scholars Program and MECOR.
- ATS is uniquely positioned to play an important leadership role in promoting global health equality as it pertains to TB, critical care, occupational exposures and environmental health policy.

Action Item

- Develop a global health equity clinical program, paralleling the MECOR effort which would encourage clinical partnerships and training in the areas of pulmonary and critical care medicine

Health Equality: Increasing Minority Participation in Pulmonary, Critical Care and Sleep Research

Background: Minority Participation in Research

Minorities are underrepresented in clinical research trials across medical research, including within our field of pulmonary, critical care and sleep medicine. This issue is gaining attention, and the Institute of Medicine held a roundtable workshop in 2015 to discuss ways to increase minority participation in research. There remains, however, significant work to be done in this area. Increasing minority participation in research is a particular concern in the era of increasingly "personalized medicine" and genomic research, and was a topic of discussion in the 2015 National Institute of Minority Health and Health Disparities (NIMHHD) advisory committee.

For example a recent study by Burchard and colleagues, found that minorities are exceedingly underrepresented in biomedical and clinical research on pulmonary disease.[28] Over the last 20 years, inclusion of racial and ethnic minority groups was reported les tan 5% of all National Institute of Health (NIH) funded studies of respiratory disease. Of NIH funded pulmonary studies 4.4% reported inclusion of racial and ethnic minorities, and only 1.9% of non-NIH studies.[28] The national lung cancer screening trial is emblematic of this problem as although underrepresented minorities were included in the trial, only 4.5% of participants were Black and less than 2% were Hispanic, while current U.S. census estimates are 13.2% African-Americans and 17.4% Hispanic.[25]

Proposal

- While we understand the scope of this problem, the ATS is in a unique position to be a leader in improving minority participation in pulmonary, critical care and sleep research.

Action Items

- Develop a workshop to identify ways to increase participation of under represented minorities in pulmonary, critical care and sleep medicine trials
- For internal research awards, prioritize clinical research projects that incorporate underrepresented minority participants

Health Equality: Increasing diversity in Pulmonary, Critical Care and Sleep Medicine

Background: Women in Pulmonary, Critical Care and Sleep Medicine

As the number of female graduates has increased in recent years to be close to 50% of United States (US) medical schools, the number of students pursuing residency in internal medicine (IM) has also increased to now nearly mirror that number, with women constituting 45% of US IM residents (table 2). That parity decreases substantially for all fellowships and particularly for pulmonary and critical care medicine. However the number of women who begin careers in our specialty has significantly increased over the past ten years from women constituting 26% of first year fellows in 2005 to 31% of first year fellows in 2015. There remains however significant drop off from the current 45% of women who are third year internal medicine residents. This represents an important opportunity for our society to embrace and encourage highly qualified female residents to pursue our specialty.

Table 2: Percentage of women in pipeline, and drop out, for pulmonary, critical care and sleep medicine

Pipeline	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14
US medical school graduates[29]	49	49	49	49	48	48	48	48	48	48
3rd year IM residents[30]	41	43	44	43	45	45	46	46	45	45
1st year ABIM Fellows[30]	34	34	35	35	36	38	37	38	38	38
1st year Pulm/CC fellows[30,31]	26	23	25	28	30	33	30	35	29	31
ATS membership			23							27

As the pipeline of women has already increased from medical school through IM residency, this points to the residency, and perhaps medical school periods, as being crucial time points during which efforts to increase women into our specialty may be successful. Further because the pipeline from medical school is already so rich it is not a question of enticing women into the field of medicine, rather of increasing visibility and attractability of our specialty to the full gamut of medical school and specifically internal medicine graduates.

Background: Underrepresented Minorities in Pulmonary, Critical Care, and Sleep Medicine

Research has shown that for medical students, racial diversity and student participation in activities related to diversity, strongly affected learning and the ways students conducted themselves in their careers, particularly with regards to disrupting patterns of racial separation.[32] In a 2008 JAMA study white students at more diverse medical schools rated themselves as more prepared to care for underrepresented minority patients, and white students at the most diverse medical schools were also more likely to support equitable access to health care.[33] Under-represented minority students in this study were substantially more likely than non-minority students to plan to care for underserved population, regardless of medical school diversity.

Studies have shown that underrepresented minority physicians are more likely to practice in underserved communities.[34,35] In addition some minority patients may prefer concordant racial and ethnic identity with their provider, and this may further improve adherence to therapy.[35] However this perspective on diversity can be dangerously viewed as limiting the role of the under-represented minority provider to public service and deflect from responsibility of the medical community as a whole to confront health disparities. Diverse teams may perform better; diversity may also lead to improved creativity of teams, and improved problem solving.[35] This is found throughout not just corporate America but also medical research – as investigators experience can often drive initial research questions.[32,35]

39% of Americans identify as minorities in the most recent Census,[25] but only approximately 8% of US medical school faculty[36]. Furthermore 16% of all African-American faculty in US medical schools are concentrated at the three historically black US medical schools. Underrepresented minority faculty are substantially less likely to achieve faculty promotion when compared to white faculty.[37] Role models and mentors for minority medical

students may increase participation in internal medicine residency and pulmonary and critical care medicine. A shortage of under-represented minorities to serve as mentors is an important challenge to recruiting minority students, with underrepresented minorities making up approximately 8% of faculty at U.S. medical schools.[36]

There is limited available data from the American Association of Medical Colleges and the American Board of Internal Medicine regarding the number of under represented minorities in Pulmonary and Critical Care medicine (Table 3). This limited data suggests not only the need to increase the number of underrepresented minorities in US medical schools but also an important opportunity to attract more underrepresented minorities to our specialty.

Table 3: Percentage of Black and Hispanic minorities in pipeline for pulmonary and critical care medicine

Pipeline	'07	'08	'09	'10	'11	'12	'13	'14
US Medical Students[31]								
% Black							6.3	
% Hispanic							4	
ABIM Residents & Fellows[30,38]								
% Black	6.3						5.8	
% Hispanic	9.9						7.7	
Total Pulmonary & Critical Care Fellows[30,38]								
% Black	3						3.9	
% Hispanic	11.5						8.8	

- Increasing the pipeline into pulmonary and critical care medicine is crucial for fostering diversity in our specialty

The ATS already has several important "pipeline" programs to attract medical students and residents to pulmonary, critical care and sleep medicine:

Internal Opportunities:

- Student Scholar Program
- Resident Boot Camp Program
- Fellows Track Symposium
- Ziskind Clinical Research Scholar Award

Junior Faculty

Beyond the trainee level mentorship and opportunities for networking and leadership are key to academic success. Academic medical societies such as the ATS are perhaps the most important avenue for junior faculty members to develop national relationships and reputations that lead to success within academia, research and the organization. A key example of how societies such as the ATS can promote diversity is guideline taskforces. Guideline taskforces represent important leadership and networking opportunities within our specialty. Invitation-only panels have a unique opportunity to be inclusive. Of note critical care guideline panels as of late have failed at this.

Proposal:

- The demographics of the ATS as well as pulmonary and critical care programs are not well defined.
- Some fellowship and faculty divisions may be more successful than others at promoting diversity and may provide important lessons for improving diversity nationally.
- Increasing the pipeline alone may be insufficient:
    - Success in ATS is contingent on academic success and research funding
    - Mentorship is necessary to foster success within academics and professional society
    - Important academic career opportunities such as society sponsored guidelines or task force panels should be inclusive of qualified underrepresented minorities and women as well as promising junior faculty

Action Items:

- Develop a survey to study diversity in pulmonary and critical care fellowship programs and divisions as well as within the ATS
    - Pulmonary, Critical Care and Sleep Fellowship:
        - Demographics of Pulmonary, Critical Care and Sleep Fellowship: race, gender, ethnicity

        - How do fellowship programs view diversity
        - Does diversity factor into program recruitment
        - What are characteristics of programs that are most successful at fostering diversity
    - Survey of ATS Membership:
        - Demographics of members: race, gender, ethnicity
        - How does the membership think about and value diversity

- Develop mentorship program across all levels that would span throughout the academic year
- Increase pipeline of underrepresented minorities and women in pulmonary and critical care medicine through over selection in student scholar, resident and fellow track programs
- Develop an early career development workshop for women and under-represented minorities
    - Other organizations such as the AAMC have leadership workshops focusing on advancing leadership for women and underrepresented minorities. These workshops allow for
- Reliance on old networks undermines the success of women and underrepresented minorities. Society driven invitation only task force and guideline panels should be inclusive, including qualified women and under represented minorities as well as up-and-coming junior faculty.

Health Equality: Promoting Health Equality Research and Increase Success of Minority Researchers

Background: Minority Researchers

US census in 2013 39% of Americans identify as a racial or ethnic minority.[25] In 2011 Science study, Black researchers were 13 times less likely to receive NIH research awards compared to white applicants.[39] In 2002, Black investigators received 0.8% and Hispanic investigators received 2.3% of NIH research funds.[35] Without adequate research funding underrepresented minorities are unable to sustain academic research careers, achieve success within national academic societies such as the ATS, and are unable to mentor the next generation of researchers. Failure of underrepresented minorities to establish academic research careers likely discourages trainees interested in pursuing careers in research.

The ATS has a number of research grants that it awards each year, which are often critical bridge support funding for investigators initiating NIH funding at the mentored grant K level funding, or those transitioning to independent investigators at the R level,

Existing ATS award opportunities

- Health Equality:
    - Minority Trainee Development Scholarships
    - Innovations in Health Equality Early Career Award
    - Innovations in Health Equality Lifetime Achievement Award

- General Research Awards:
    - ATS foundation research grants

Proposal:

- Promote Health equality Research among general research awards
- Increase funding for underrepresented minorities in NIH and internal ATS funding

Action Items:

- **External**
    - Promoting Health Equality Research
        - ATS advocates for increased research funding for NHLBI and TB and the VA.

- Minority Researchers
  - Establish working group with NHLBI to develop strategies to increase funding rate for underrepresented minorities

- **Internal**
  - Promoting Health Equality Research
    - Incorporate and health equality benchmarks into ATS grant submissions
    - Consider adding health equality sub-classification for ATS abstract submission to facilitate ATS session generation
  - Minority Researchers
    - Establish working group to review history of ATS application and funding rate for underrepresented minorities to establish strategies to improve foster success of underrepresented minority researchers

Health Equality: Addressing Unconscious or Implicit Bias in Pulmonary, Critical Care and Sleep Medicine

Background: Unconscious Bias

Decision-making is often unconscious passed on perceptions of reality and experiences. This hold true even more so within the field of medicine. In classic work on racial bias research found that both white participants who espoused explicit racial prejudice and those who expressed holding egalitarian beliefs were equally able to produce negative cultural stereotypes about Blacks. Common cultural experience of racial stereotypes can be automatically activated in decision making in unintended an unacknowledged ways, resulting in unconscious or implicit bias.[40] The most commonly used measure of this Implicit Association Test.[41] The Project Implicit website,[42] a collaborative effort between researchers at Harvard University, University of Washington, and University of Virginia allows those interested to take versions of implicit association tests online. Several studies have shown both physician and medical students demonstrating pro-White bias as measured by Implicit Association Tests. Further, implicit bias as measured on these tests has correlated with bias in clinical-decision making or patient perception of their providers.[43-48]

Proposal

- It is unlikely that the majority of physicians in our field express explicit racial bias. However implicit bias is may play a significant role within our specialty and likely impacts recruitment, promotion and clinical patient interaction.

Action Item

- Workshop to unconscious bias both with the ATS organization and within our specialty as a whole with the goal of developing strategies to address unconscious bias within our specialty
- Sunrise seminar on unconscious bias for ATS attendees

Health Equality: Education and Outreach

Background

Education and outreach to trainees presents an important opportunity to increase awareness and advocacy for the ATS health equality mission. ATS has a number of educational opportunities for medical and nursing students as well as residents and fellows. These programs offer top notch clinical education and review into which a session focusing on key aspects of the health equality as it relates to clinical relevance, research implications and relevant health policy would strengthen trainee programs and help educate our next generation of clinicians.

Proposal:

- ATS has established trainee educational programming that provide an important opportunity to educate trainees on health equity issues as they related to both patient clinical care and research.
- Education on health equality topics may increase trainee interest in research in these areas and improve patient care.
- Education on advocacy during the trainee years may increase participation in advocacy at the local, state and federal level.

- **Internal Opportunities:**
    - Student Scholar Program
    - Resident Boot Camp Program
    - Fellows Track Symposium
    - Ziskind Clinical Research Scholar Award

Action Item:

- The health equality fellow will develop a session on key health equality incorporating key aspects of clinical relevance, research implications, and health policy that would be incorporated into ATS trainee programming.

Additional Activities as part of the health policy fellowship

- External Meetings in Washington DC:
    - Academy Health - Health Policy Conference 2015
    - NIMHHD Advisory Council Meeting
    - Institute of Medicine- Health Equality Roundtable on increasing participation of underrepresented minorities
    - CBC Braintrust
        - Brandon Webb
    - HEAA legislation working group
        - Drafted updates and revisions to 114th Congress Health Equality and Accountability Act to incorporate CT screening for lung cancer, expansion of Medicaid tobacco cessation services, and language regarding health equity importance of Asthma and COPD, which were accepted into the bill
    - Urban League
    - American Lung Association
    - Additional Washington DC Capital Hill Advocacy
        - TB funding
        - Hill Day 2015, 2016 (cancelled)
- ATS Amicus Brief for ACA challenge of King v Burwell
- ATS Health Equality Workshop: Health Policy
- ATS Health Equality Committee
- Everyday Bias workshop on unconscious bias (University of Pennsylvania)
- Local Advocacy
    - PA Med Society
    - PA ALA
    - Congressman Brady
- Meetings with academic leaders in diversity
    - Eve Higginbotham
    - Horace Delisser
    - Antonia Villarruel
    - Anna Nunez
- Manuscripts
    - Health Equality Workshop
    - Pulmonary Health Equality Chapter on Access
    - Health Equality and Accountability Act Legislation
    - *King v Burwell* Amicus Brief

- *King v Burwell* ATS Annals Commentary

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