

HEALTH POLICY STATEMENT

2019 ACC Health Policy Statement on Cardiologist Compensation and Opportunity Equity



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PREFACE

The American College of Cardiology (ACC) has a long history of developing documents (e.g., decision pathways, health policy statements (HPS), appropriate use criteria) to provide members with guidance on both clinical and nonclinical topics relevant to cardiovascular care. In most circumstances, these documents have been created to complement clinical practice guidelines and to inform clinicians about areas where evidence may be new and evolving or where sufficient data may be more limited. In spite of this, numerous care gaps continue to exist, highlighting the need for more streamlined and efficient processes to implement best practices in service to improved patient care.

Central to the ACC's strategic plan is the generation of "actionable knowledge"—a concept that places emphasis on making clinical information easier to consume, share, integrate, and update. To this end, the ACC has evolved from developing isolated documents to the development

of integrated "solution sets." Solution sets are groups of closely related activities, policy, mobile applications, decision support, and other tools necessary to transform care and/or improve heart health. Solution sets address key questions facing care teams and attempt to provide practical guidance to be applied at the point of care. They use both established and emerging methods to disseminate information for cardiovascular conditions and their related management. The success of the solution sets rests firmly on their ability to have a measurable impact on the delivery of care. Because solution sets reflect current evidence and ongoing gaps in care, the associated tools will be refined over time to best match member needs.

HPS represent a key component of solution sets. The methodology for HPS is grounded in assembling a group of experts to develop content that addresses key policy issues facing our members. Topics selected for HPS vary widely, but connect to scientific, quality, and/or advocacy efforts within the ACC. HPS are not written to provide clinical guidance; rather, they are intended to advocate a position, be informational in nature, and apprise stakeholders of the ACC's stance on healthcare policies and programs.

*Ty J. Gluckman, MD, FACC
Chair, ACC Solution Set Oversight Committee*

EXECUTIVE SUMMARY

Fairness and equity in both compensation and access to opportunity are critical to the health and future of the cardiovascular workforce. Such equity is also essential for the American College of Cardiology (ACC) to achieve its mission to "transform cardiovascular care and improve heart health" (1). Focusing exclusively on cardiologists, this document elucidates a set of principles for the development of compensation plans that advance equity in both compensation and access to opportunity. In addition to enunciating these principles, the document surveys data on current inequities in the field and the legal instruments designed to remedy them. Although these tend to focus on gender and race, it is important to note that inequities also occur on an individual basis and are also addressed here. This document includes a set of considerations in creating and implementing plans, including discussion of plan components and leadership responsibilities for both compensation and opportunity equity.

The ACC believes that cardiologist compensation should be determined objectively by a modeled systems approach that is prospectively developed on the basis of consensus principles and that recognizes the value of and explicitly rewards work that cannot be billed clinically. Cardiologist compensation plans should include

strategies and formulas that accommodate different job descriptions and career flexibility while being resistant to arbitrary individual exceptions. Implementation of compensation plans should include providing the tools and education required to facilitate a fundamental understanding of the compensation plan. This applies to terms and processes in aggregate, as well as determinations of individual compensation. Equity of opportunity is essential to ensure access to positions, resources, and achievements that may drive compensation. Accountability in equity and fairness in both compensation and access to opportunity are hallmarks of strategic cardiology practice/division leadership.

METHODS

This document represents a new subtype of HPS that is focused on topics related to workforce, professionalism, and clinician wellbeing, and recognizes the importance of these topics in achieving the ACC's mission. The topic of compensation and opportunity equity was approved by the Science and Quality Committee, the parent committee of the Solution Set Oversight Committee, as an area of interest for a HPS-based discussion with the ACC's Diversity and Inclusion Task Force. The resulting position is reflected in this statement.

A writing group was invited to participate as representative of all stakeholders. Subsequent writing assignments were configured according to areas of expertise. Teleconferences were used to edit contributed content. Conference calls of the writing committee were confidential and were attended only by committee members and ACC staff. When consensus within the writing committee was deemed necessary by the Chair and Vice Chair, either a roll call vote or an e-mail-generated ballot was implemented. A simple majority prevailed; in the presence of a tie, chair prerogative reconciled the final decision.

The work of the writing committee was supported exclusively by the ACC without commercial support. Writing committee members volunteered their time to this effort. All members of the writing committee, as well as those selected to serve as peer reviewers of this document, were required to disclose relationships with industry (RWI) and other entities (see [Appendixes 1 and 2](#), respectively). The Chair was without any RWI and is responsible for the content of this document.

In keeping with ACC policy, the majority of the writing committee were without relevant RWI. The formal peer review process was completed consistent with ACC policy, and included a public comment period to obtain further feedback. Following reconciliation of all comments, this document was approved for publication by the Clinical Policy Approval Committee.

LEGAL DISCLAIMER

This document is provided for informational purposes only and does not provide legal advice; please consult with your own counsel for legal guidance on compliance with applicable laws and regulations. This document is not intended to and does not encourage any coordination between competitors with respect to compensation practices. To comply with the antitrust laws, competitors should not discuss or agree on the salaries or other compensation.

1. ACC PRINCIPLES FOR CARDIOLOGIST COMPENSATION AND OPPORTUNITY EQUITY

The ACC affirms that fairness and equity in compensation and access to opportunity are critical to the achievement of its mission to “transform cardiovascular care and improve heart health” (2) and to the health and future of the cardiovascular workforce. In formulating its recommendations, the writing committee acknowledges that compensation is largely a local challenge that cannot be addressed purely through formulas. Rather, compensation strategy must be driven by a commitment to achieving equity that is articulated and upheld by steadfast leadership cognizant of inequity in this area.

Beyond the desire for fairness and equity in compensation, gaps in compensation can adversely affect the cardiology workplace culture, including work satisfaction and quality of care (3). Inequities affect both individuals in isolation and/or as members of a group. As these issues exist across multiple specialties within medicine, some professional organizations have promulgated clinical policy to improve salary and opportunity equity (4-6). The American Association of Medical Colleges (AAMC) has recently issued a comprehensive report titled: [Promising Practices for Understanding and Addressing Faculty Salary Equity at U.S. Medical Schools](#), which contains survey data and case reports, and is accompanied by the AAMC Salary Equity Toolkit (7).

With this policy statement, the ACC intends to provide a clear set of principles related to equity in compensation and opportunity in the professional cardiovascular workplace along with the associated underlying considerations. This document will supplement the 2018 ACC-cosponsored American Medical Association resolution, which advocates for “institutional and departmental policies that promote transparency in defining initial and subsequent physician compensation,” “equal base pay based on objective criteria,” and “work to promote implicit bias and compensation determination training for individuals in positions to decide physician compensation.” It also “encourages a specified approach, sufficient to identify gender disparity, to oversight of

compensation models, metrics, and actual total compensation for all employed physicians” and urges institutions and organizations to begin educational programs to help all physicians negotiate equitable compensation (8). This document should serve as guidance for clinicians and administrators to aid in minimizing and eliminating disparities, thus advancing the profession toward the goals of fairness and improved patient care (Appendix 3).

The following recommendations represent best practices in constructing and implementing compensation models for cardiovascular physicians. Many of the recommendations share commonalities with those put forth by other medical and surgical societies (4-6). Others underscore some of the specific circumstances inherent to cardiovascular practice that impact physicians who work as part of integrated teams and multidisciplinary divisions.

1. **The American College of Cardiology believes that cardiologist compensation should be equitable and fair for equivalent work.** Cardiologist compensation should be equal for equivalent work at each professional career stage and be determined by the cardiologist’s skills, expertise, and knowledge, and not influenced by the cardiologist’s personal identity characteristics (including age, race, ethnicity, gender identity, religion, nationality, disability, citizenship status, marital status, and sexual orientation).
2. **The American College of Cardiology believes that cardiologist compensation should be objectively determined by a modeled systems approach that is prospectively developed and based on consensus principles.** Compensation formulas and plans should be developed and maintained through a thoughtful and deliberate process that includes multiple stakeholders. Model creation should start with principles before proceeding to plan specifics. It should include change management processes that consider the financial impact of change on individuals and groups.
3. **The American College of Cardiology believes that cardiologist compensation should be fully aligned with an organization/practice’s business strategies, mission, and core values.** Cardiologist compensation plans are opportunities to define culture and strategy by identifying those activities and behaviors that are of greatest value and specifying how they can be measured and incentivized. Such plans should be approached broadly rather than being narrowly focused (such as being limited to clinical work relative value units [wRVUs]). An expansive approach will help organizations/practices recruit and retain cardiologists, maximize workforce satisfaction and collegiality, and be resilient, which includes preparing for the shift toward value-based reimbursement.
4. **The American College of Cardiology believes that cardiologist compensation should be individualized to reflect performance, productivity, and other prospectively determined factors.** Compensation decisions should also be based on the value of the position to the organization, competition in the market, and other bona fide business factors rather than subjective concerns.
5. **The American College of Cardiology believes that cardiologist compensation plans should be designed to minimize unwarranted systemic differences based solely on subspecialty.** Equity for those involved in different subspecialties within cardiology must be provided, and a level playing field must exist for all to reap the benefits achieved by a multidisciplinary cardiovascular team. Those performing invasive procedures should not have their time unjustifiably valued over those providing other clinical skills, such as imaging, disease prevention and management, and clinical patient care.
6. **The American College of Cardiology believes that cardiologist compensation plans should value and explicitly reward nonbillable work, including quality improvement, leadership/administration, teaching/mentoring, research, community service, and outreach activities.** Many cardiology practices and programs have missions that support or are pursued in addition to clinical service, although time spent in such activities may reduce availability for wRVU measures of clinical productivity. Even in the clinical arena, compensation plans should offer monetary acknowledgment of the importance of practice building through quality of care, patient referral, and patient satisfaction.
7. **The American College of Cardiology believes that cardiologist compensation plans should include strategies and formulas that offer flexibility to accommodate different job descriptions.** Employers should be encouraged to adopt flexible workplace policies designed to support cardiologists in meeting their professional and personal obligations, while maintaining certainty and stability of employment. Flexibility, as a strategic business tool, can help all cardiologists manage work and personal-life demands, thereby decreasing the risk of compromising salary in exchange for flexibility.
8. **The American College of Cardiology believes that cardiologist compensation plans should explicitly address and incorporate leave policies.** Defined policies regarding vacation and parental, family, and medical leaves should be included as part of all cardiologists’ benefits packages. Cardiologists choosing

to take leave should be able to return to full-time work without the fear of retribution and without penalties or loss of status.

9. **The American College of Cardiology believes that cardiologist compensation plans should define those activities and behaviors that will result in an increase or decrease in compensation.** Cardiologists seeking to increase their salaries should have a clear path to doing so, while those who wish to pursue less-remunerative professional opportunities or outside activities should be made aware of any consequences before making such choices.
10. **The American College of Cardiology believes that cardiologist compensation plans should not utilize salary history in setting cardiologist compensation.** Additionally, potential employers should not inquire about salary history.
11. **The American College of Cardiology believes that cardiologist starting compensation at a given institution or practice should be the same for all individuals at a given rank or position within a given subspecialty of cardiology at that institution or practice.** Objective, articulated, and measurable criteria should be applied to determine the additional components of a recruitment package, including sign-on bonus, moving expenses, loan forgiveness, and other startup funds.
12. **The American College of Cardiology believes that cardiologist compensation plans should be transparent in terms of the approach, methodology, and calculations used to determine individual compensation.** Information about the methodology and criteria used to determine initial and subsequent salaries, bonuses, and benefits should be freely available to all members of a cardiovascular group or division. Individuals should be aware of how their specific compensation is determined and how/when it can be changed. Fostering a culture of transparency can help reduce pay disparities and even suspicion of unequal treatment, make it easier to identify discrimination, and offer negotiating leverage to employees who are receiving unfair treatment.
13. **The American College of Cardiology believes that cardiologist compensation plans should include the tools and education required to achieve a fundamental understanding of compensation terms and processes in aggregate as well as how these apply in determining individual compensation.** Organizations must clearly communicate the basics of the compensation model used and how the individual job description and performance are used to determine compensation. In addition, cardiologists should understand that some compensation decisions are made because of bona fide system and business factors such as recruitment/retention and market growth.
14. **The American College of Cardiology believes that cardiologist compensation should recognize that equity in cardiologist compensation ultimately depends on equal access to career opportunities.** This includes access to explicitly compensated leadership positions as well as fair consideration for and access to small, everyday opportunities that, in aggregate, can accelerate—or, in their absence, impede—career advancement. Although some cardiologists are better at and/or more interested in some activities than others, opportunities in professional development, mentorship, advancement, enhanced visibility such as appointments to decision-making committees and recruitment teams, and leadership roles should be equitably distributed. Special consideration should be given to those who are historically likely to be disadvantaged, and they should additionally have access to leadership skills development.
15. **The American College of Cardiology believes that, as part of ensuring opportunity equity, cardiology leadership should be responsible for mitigating the effects of unconscious or implicit bias and creating a culture of inclusion.** The creation and maintenance of objective systems for recruitment, retention, compensation, and advancement can bypass implicit biases and enhance the objectivity of decision-making, creating an equitable environment that contributes to business and other success. In addition, the ACC encourages implicit bias training for all individuals involved in recruitment, retention, and the design and implementation of compensation plans.
16. **The American College of Cardiology believes that cardiology practice/division leadership should be responsible for equity in compensation and opportunity and should be accountable for creating and implementing fair policies and adhering to compensation best practices.** Leaders must be knowledgeable about the varieties of compensation policies and best practices and their pros and cons, associated practical matters such as legal considerations and accounting, and how unconscious bias and other opportunity inequities can translate into compensation inequity. They should be held accountable for instituting transparent practices and providing educational resources.
17. **The American College of Cardiology believes that both cardiology leadership and impartial external experts should regularly and frequently review cardiologist compensation models, metrics, and actual total compensation, including bonuses, and access to resources and opportunities, and do so with reference to national benchmarks.** Since job descriptions and productivity change frequently, regular reviews by leadership, preferably annually, are

essential to ensure that the principles of the compensation plan are adhered to and that fairness is being achieved in both pay and opportunity. Data pertaining to individuals' compensation should be compared with local and national benchmarks, with inequities corrected rapidly. Provision should be made for regular review of changes in value-based reimbursement policies that may impact compensation models.

2. BACKGROUND

Numerous well-established federal and state laws protect employed persons from discrimination in compensation and apply to physicians as well as to nonmedical personnel. Nevertheless, the medical field, including cardiology, continues to struggle with fair and equitable compensation and with equity of opportunity. These issues permeate our society but often impose a particularly onerous burden in the medical field.

Compensation equity issues can affect all members of the healthcare team, whether as a member of a systematically underpaid group, or individually. Most of the available data relate to underpaid groups, particularly women, who continue to be paid less than men for performing similar roles in the job market. The United Nations has estimated that globally, women earn only approximately 77 cents for every dollar men earn for equivalent work (9). In the United States, even well-educated women earn less than men working in similar roles (10). Although women are increasingly entering the traditionally male-dominated sectors of technology and medicine, compensation and gender inequities have persisted in these fields. Recognizing the adverse strategic, financial, and human consequences of these inequities, many industries are trying to change business practices and shift their culture in a variety of ways, including workplace compensation policy reform (10-12). Although data are lacking, anecdotal accounts indicate that other groups, such as older adults, may be at risk; on an individual basis, even white males can find themselves in positions lacking fairness in compensation or opportunity. This is a situation that can touch anyone.

Women are not the only group that is a victim of compensation inequity. U.S. data from 2018 show that among the major race and ethnicity groups, median full-time weekly earnings of blacks were 76% of those of whites, while Hispanics earned 74% of median white full-time earnings (13). The sparse data about underrepresented groups in medicine suggest that as a group, minorities are also paid lower salaries than are white male physicians, with black male physicians earning approximately 62 cents and Hispanic male physicians earning 72 cents for every dollar earned by white male physicians.

More recent data show that white male physicians out-earn black physicians by \$64,812 annually (14,15). No data specific to cardiologists are available.

As with other global industries, women in medicine are paid less than men, even after adjusting for years in practice, practice setting (academic vs. private), and hours worked, among other factors (16). In cardiology, a \$31,749 to \$37,717 annual salary gap exists between female and male physicians, even after considering a broad variety of individual, role, and practice characteristics. This amounts to more than a \$1 million difference over the course of a career (17).

2.1. Goals of the ACC Compensation and Opportunity Equity Statement

The ACC Board of Trustees recently approved a Diversity and Inclusion Strategy that enunciates the following vision: “ACC will harness the power of the diversity of its members to advance patient care, spur innovation, and improve health equity among individual patients and populations. In doing so, ACC will ensure opportunity for all cardiovascular providers by working towards a fully inclusive organization and profession” (18).

This health policy document focusing on workforce concerns represents a logical extension of this vision and of the core values of the ACC—patient-centered care, teamwork and collaboration, and professionalism and excellence (19)—and of the goals to put these values into practice by means of strategic initiatives. Compensation plans are among the most discussed issues in healthcare institutions (20-22). It is the privilege and responsibility of the College to leverage the organization's international stature to work for a fairer and more effective business environment in striving to “transform cardiovascular care and improve heart health,” as articulated in the ACC mission statement (2,23). Inequities in compensation and opportunity are a common source of burnout, which affects a substantial portion of the physician (and cardiovascular) workforce (24-26) and can often result in problems with professionalism and quality of patient care (27,28). Finally, in an era of “volume to value,” traditional compensation plans must evolve. This policy statement endeavors to assist in such labor.

Although selected compensation models are discussed in the following text, the diversity of practice and program types, environments, and missions precludes recommendations for a specific plan or plans. It is left to individual practices and programs to utilize the principles and information provided as a guide to craft strategies and tactics that best fit particular circumstances. Importantly, although the discussion may disproportionately consider gender equity due to the greater availability of data in this area, the ACC also recognizes and endorses the importance of equity based on other personal

characteristics (race, ethnicity, nationality, religion, sexual orientation, disability, and age, among other identity categories) as well as on an individual basis and not just for specific groups.

To provide a more focused set of principles, the writing committee decided to limit its scope to cardiologists. This is a discrete group for which there is a clear need for improvement noted in existing data, clear opportunities to improve, and the collective experience to support such efforts, making success more likely. Although the writing committee recognizes that concerns regarding compensation and opportunity equity apply broadly to all categories of College membership, it was believed that addressing compensation for surgeons, care team members, or fellows-in-training in this document would risk a loss of focus and dilution of impact. The writing committee is optimistic that the recommended principles will have a positive impact for all groups, including focused attention on compensation and opportunity equity for other segments of the cardiovascular team.

2.2. Definitions of Compensation and Opportunity

At a minimum, compensation refers to a dollar amount that includes base salary plus supplemental compensation and that can encompass pay for a broad variety of activities, including call pay, administrative pay, and incentives (e.g., clinical productivity, quality and access, research productivity, strategic initiatives, operational efficiencies, educational leadership). It is important to note that legally, compensation goes beyond salary and includes overtime pay; bonuses; stock options; profit-sharing plans; paid vacation leave and holiday pay or time off; reimbursement for travel expenses; health, life, and disability insurance; and other benefits. The use of the term “compensation” in this document is intentionally broad, and includes all funding and resources provided to participating cardiologists that helps to recruit, retain, and reward cardiologists and to enhance their careers.

Even when compensation is defined broadly, equity cannot be fully ensured without considering other dimensions that may affect compensation directly or indirectly, including career advancement; quantity and quality of clinical, administrative, and research support; clinic/lab/procedural space and time; work environment; and access to resources. For the purposes of this document, these dimensions have been grouped broadly under the category of “opportunity” and are considered essential prerequisites to ensuring compensation equity.

Leadership roles may not be equally accessible to all, but more subtly, the ability to connect with key referring groups or lead high-profile research programs may be less available for women and under-represented groups in cardiology than for white men. Unequal access to

resources can profoundly affect a cardiologist’s ability to maximize otherwise unbiased measures of productivity. In the clinical domain, such resources can include advanced practice providers, allocation of office or clinic space, and procedural scheduling. In the research domain, they can include access to wet bench space, equipment, and technical personnel. In both arenas, these and other limitations can hamper productivity. Individuals may be penalized for choices made to ensure work-life balance, and careers can advance more slowly without the mentors, senior role models, and sponsors who may be less available to women and minorities. All of these elements should be considered when evaluating a compensation program for fairness and ensuring opportunity equity.

2.3. Legal Concerns

Federal and state laws protecting employed physicians from compensation discrimination are well-established. Federal antidiscrimination laws include the [Equal Pay Act of 1963 \(EPA\)](#), [Title VII of the Civil Rights Act of 1964 \(Title VII\)](#), the [Age Discrimination in Employment Act of 1967 \(ADEA\)](#), and [Title I of the Americans with Disabilities Act of 1990 \(ADA\)](#). Title VII, the ADEA, and the ADA prohibit compensation discrimination not only on the basis of gender, but also on the basis of race, color, religion, national origin, age, and disability. Many states, including California, Massachusetts, Maryland, and New York, have adopted separate similar or broader equal pay legislation. For example, Massachusetts is the first state to ban employers from seeking information about applicants’ compensation history in the hiring process until after making a job offer that includes compensation (29).

The first federal statute enacted to prohibit compensation discrimination, the EPA (30), requires that men and women be given equal pay for equal work in the same establishment. The jobs need not be identical, but they must be substantially equal—a requirement that has resulted in significant litigation (31). It is job content, not job titles, that determines whether jobs are substantially equal. When evaluating whether jobs are substantially equal and wages are unequal, a court will look to whether the jobs being compared require substantially equal skill, effort, and responsibility, and whether they are performed under similar working conditions within the same establishment (32-34). Pay differentials are permitted when they are based on seniority, merit, quantity or quality of production, or certain other factors other than sex. These are known as “affirmative defenses,” and it is the employer’s burden to prove that they apply (35). An individual alleging compensation discrimination in violation of the EPA therefore needs only to demonstrate a sex-based wage disparity in substantially equal jobs in the same establishment. If the employer cannot rebut that

showing, it must prove that the wage disparity is based on 1 of the 4 affirmative defenses or the complainant will prevail.

Under Title VII, the ADEA, and the ADA, compensation discrimination can occur in a variety of forms, including intentional disparate treatment and unintended discrimination created as a result of a facially neutral policy that has a disparate impact upon women or another protected group. For example, if an employer intentionally pays male physicians more than similarly situated female physicians without a legitimate business reason for the practice, this constitutes prohibited disparate treatment. Alternatively, if an employer provides extra compensation to employees who are the “head of household” (i.e., married with dependents and the primary financial contributor to the household), the practice may have an unlawful disparate impact on women and would therefore be impermissibly discriminatory.

It is important to note that federal laws (35-37) also prohibit retaliation against an individual for opposing employment practices that discriminate on the basis of sex or another prohibited consideration and can result in unequal compensation, or for filing a discrimination charge, testifying, or participating in any way in an investigation, proceeding, or litigation under Title VII, the ADEA, ADA, or EPA. The number of retaliation charges filed with the Equal Employment Opportunity Commission has skyrocketed from 18,198 in 1997 to 41,097 in 2017 (38). Retaliation claims are generally easier to prove than discrimination claims, and attorneys’ fees of a successful claimant will be awarded by the court for either type of claim.

3. GENERAL CONSIDERATIONS UNDERLYING ACC RECOMMENDATIONS

3.1. Characteristics of a Good Compensation Plan

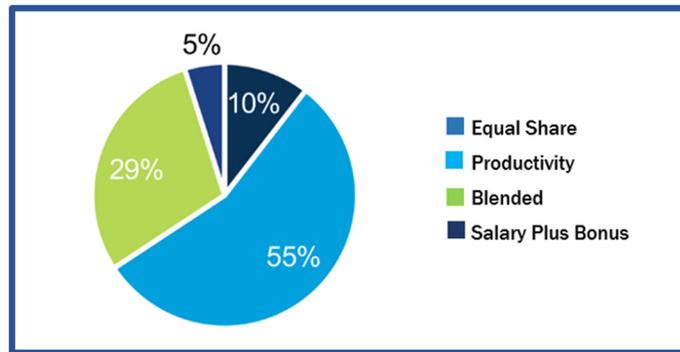
Compensation plan design is a challenging undertaking and, therefore, represents an important leadership opportunity. A good compensation plan can and should both reflect and advance the unique culture, strategy, and goals of its organization. Nonetheless, some principles are universal: The best plans serve to advance the organizational mission. They are clear and easily understood by those participating. They are fair and provide equal opportunity to maximize compensation across a range of activities. The rules and formulas embedded in the best plans avoid dependence on negotiating skill or other strategies that might result in inequity or be subject to the influence of unconscious (or conscious) bias. An equitable compensation plan should avoid falling back on subjective or personal criteria to establish compensation. Finally, the compensation plan must be legal and compliant, meet fair pay law expectations in the states in

which this is relevant, and be flexible enough to withstand changing healthcare or specialty-specific circumstances.

A fair and equitable compensation plan does not need to create compensation parity, but it should create compensation equity. Every member of the organization—whether a practice, medical group, academic division, or other unit—should have an equal opportunity through the compensation plan to achieve a market-equitable income, applicable performance bonuses, and the resources required to do their specific job well. Plans should avoid undervaluing essential but nonrevenue-producing work, such as educational activities, travel to remote but strategic satellite locations (“windshield time”), committee work, research, and mentoring. Plans must also include consideration of how to balance individual productivity with team-based success, and account for differences in wRVU valuation between procedural and nonprocedural work, while specifying how to appropriately reward different career stages, health risks (e.g., radiation exposure), or those with different work-life balances. For multispecialty groups including noncardiologists, whether employed, practice, or academic, compensation models should be differentiated by specialty in light of unique considerations including but not limited to supply, demand, training, risk and acuity, and job demands.

Although many plans are constructed to reward and enhance productivity, an equally important test of the plan is the impact it has on the organizational culture—whether it aligns the members around common goals and milestones. Successful plans will provide multidimensional gains. Once implemented, most, if not all, of the impacted individuals must feel the plan is fairly and equitably applied. The plan must be flexible enough to evolve with changing circumstances in the market or organization without needing a complete overhaul annually. Every plan must be designed to meet local needs, achieve system goals, and fulfill mission-driven values. The plan should retain enough income to cover leadership costs, support underfunded key mission areas, and allow for program growth and development, including reserving funds for unexpected events. Additionally, a good compensation plan helps attract and retain candidates for positions and aligns incentives to achieve the goals of the practice, group, or academic unit. Organizations need to ensure that their compensation models are fluid and reflect industry trends (thus maintaining market competitiveness) while fulfilling legal and compliance requirements. Finally, no formula or approach is perfect, but routine review of individual total compensation under the plan, particularly with an eye to disparities, will help to close any gaps and achieve equal compensation for equal work.

FIGURE 1 Compensation Plan Models Used to Pay Physicians in 2017



Adapted with permission from the 2018 MedAxiom Report (41).

3.2. Common Components of Compensation Plan Structure

A broad range of approaches is possible for a successful compensation model, including various combinations of fixed salary, base pay with or without a bonus or a productivity component or straight productivity, and equal share. Numerous resources describe these models, each of which has pros and cons (39).

MedAxiom, an ACC-owned consulting, networking, and membership services organization supporting cardiovascular practices, publishes data regarding compensation collected in annual surveys (40). Of the 2,488 physicians representing 162 groups who responded to the latest 2017 MedAxiom survey on physicians' compensation models, practice structures were 60% employed, 25% in private groups, 10% in professional services agreements, and 5% in academic positions. A total of 55% of respondents were compensated under a productivity model, 30% by a blended model (productivity plus bonus), 5% by equal share, and 10% by a salary plus bonus arrangement (Figure 1) (41).

Once a basic approach is selected, the components within the plan can be defined and modelled using metrics to create the compensation distribution methodology. To satisfy the need for transparency in the overall plan and in the connection between individual performance and pay, careful selection of a limited set of metrics is required, often based on specific valuations of clinical duties (including call), education, research, and administrative work. Several of these metrics can be adapted for use as team goals as well as individual pay. See Table 1 for some examples of metrics in each of these areas.

Beyond these components, plans must consider total compensation—not just salary, including benefits and allocations such as licenses, medical malpractice insurance,

continuing medical education and maintenance of certification costs, professional society dues and journal subscriptions, pension/profit sharing, and personal and educational time off. Consideration of local practice governance—whether independent, employment, or academic—will assist in appropriate analysis of regional compensation and national surveys to ensure a realistic perspective on compensation and its components. Ultimately, any model must wrestle with the need to balance outlay (funds distributed according to compensation model and metrics as well as other expenses) with actual income from all relevant sources (clinical and others) to ensure an overall positive net balance or at least break even.

3.3. Compensation Plan Example: Blended Model

Examination of one of the most common compensation models can assist in contextualizing model components and demonstrating how they can be incorporated into a well-functioning plan. Using a blended model as an example allows consideration of a broad variety of components, including base pay or salary, call compensation, clinical productivity, and non-wRVU-generating or non-billable work in a variety of areas (e.g., clinical, administrative, research, education).

3.3.1. Base Pay

The concept of base pay or set salary can provide a more even distribution of compensation than would a straight production model. Base pay is a common component of models in academic programs, in which universities or teaching hospitals have established organizational pay structures that may combine salary on the academic side with production-based pay on the clinical side. Many

TABLE 1 Sample Financial and Nonfinancial Compensation Components

Components	Base Pay	Clinical	Administration	Education	Research	Community Service	Bonus
Commonly used metrics for financial compensation	<ul style="list-style-type: none"> ■ Partnership status ■ Academic rank ■ Professional and CME stipend ■ Retirement and other benefits ■ MGMA, AMGA, SCA subspecialty target 	<ul style="list-style-type: none"> ■ wRVU/production ■ Call status ■ Percentage of professional revenue 	<ul style="list-style-type: none"> ■ Medical director stipend ■ Administrative or committee hours (as tracked) 	<ul style="list-style-type: none"> ■ Fellowship director stipend ■ Teaching evaluations ■ Course director stipend 	<ul style="list-style-type: none"> ■ Funded salary on grants ■ Grants received ■ Publications 	<ul style="list-style-type: none"> ■ Outreach clinic travel stipend 	<ul style="list-style-type: none"> ■ Individual performance ■ Group (risk pool) performance ■ Syndicated ownership profit sharing
Less common financial metrics		<ul style="list-style-type: none"> ■ Per shift or rounding day ■ New patient referrals or program development ■ Quadruple Aim or quality performance ■ Panel size 		<ul style="list-style-type: none"> ■ Mentoring ■ Formal lectures given 	<ul style="list-style-type: none"> ■ Return of institutional indirect cost payments to the investigator 		<ul style="list-style-type: none"> ■ Operational efficiency
Sample nonfinancial components of compensation	<ul style="list-style-type: none"> ■ Office space ■ Administrative support 	<ul style="list-style-type: none"> ■ Procedural ■ RN or APP staffing ■ On-site day care 			<ul style="list-style-type: none"> ■ Wet bench space ■ Technical or statistical personnel ■ Equipment access ■ Access to databases/infrastructure ■ Research coordinator 		

AMGA indicates American Medical Group Association; APP, advanced practice provider; CME, continuing medical education; MGMA, Medical Group Management Association; OR, operating room; RN, registered nurse; SCA, Sullivan, Cotter and Associates; and wRVU, work relative value unit.

current models set specific wRVU thresholds that must be met to qualify for base pay and/or participation in a productivity pool. National surveys performed by groups such as Medical Group Management Association (42) are often used to benchmark regional and subspecialty compensation.

3.3.2. Call Compensation and Part-Time Work

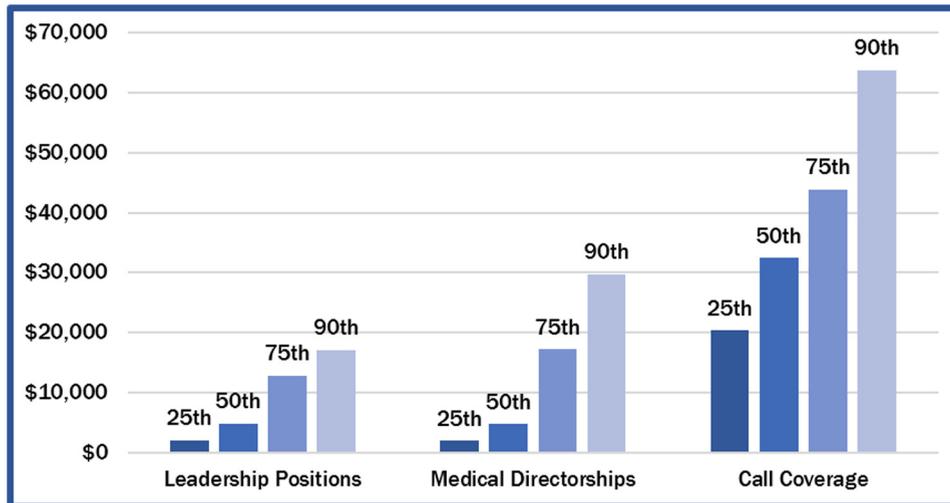
Implicit in compensation equity is the ability to calibrate compensation to work effort. Setting a distinct and specific “call” pay scale is considered best practice; without a specific predetermined and objective method to “value” call work, it is almost impossible to “slow down” or cease participating in call. The design of the call component is complex and fraught with competing agendas. The differing demands of interventional call and noninvasive call as well as myriad other elements must be considered when designing a call component of the total plan. Such models can improve equity by fairly accommodating individuals who prefer part-time or job-sharing work schedules, or full-, partial-, or no-call options. Allowing for flexibility in design will ensure that plans will cover cardiologists throughout their careers and preserve the ability of highly experienced individuals to continue to contribute, while also acknowledging work-life balance preferences. However, as wRVU productivity can vary substantially by activity despite similar time requirements, care must be taken to ensure that

compensation, while necessarily reflecting market forces, does not create unwarranted differences based solely on subspecialty that cannot be justified by training requirements, occupational stress, on call duties, or other factors.

3.3.3. Non-wRVU-Generating or Nonbillable Activities

One of the more complex questions to consider is how to compensate fairly for non-wRVU or nonbillable activities. Whether such activities involve quality improvement, teaching, research, designing and implementing new programs, or leading and managing a department or service line, finding a fair and equitable way of valuing this time is essential. All of these activities are critical to the success of cardiovascular programs and must be compensated fairly, within fair-market value and commercially reasonable parameters. However, only some—such as call coverage, medical directorships, and other leadership positions—are typically accompanied by revenue streams (Figure 2A), with the first of these making an outside contribution. When such contributions are not associated with revenue or the revenue is insufficient, funds to cover such pay need to be reserved from other activities, thereby potentially creating conflict. Even when sufficient funds are available, they may not be fully used for salary and bonuses (Figure 2B), but rather reserved for other purposes. Indeed, in all cases represented in Figure 2B, more funds were available than were actually paid.

FIGURE 2A 2017 MedAxiom Data Showing Funds Available Per Physician for 3 Relevant Non-wRVU-Generating Activities: Leadership Positions, Medical Directorships, and Call Coverage



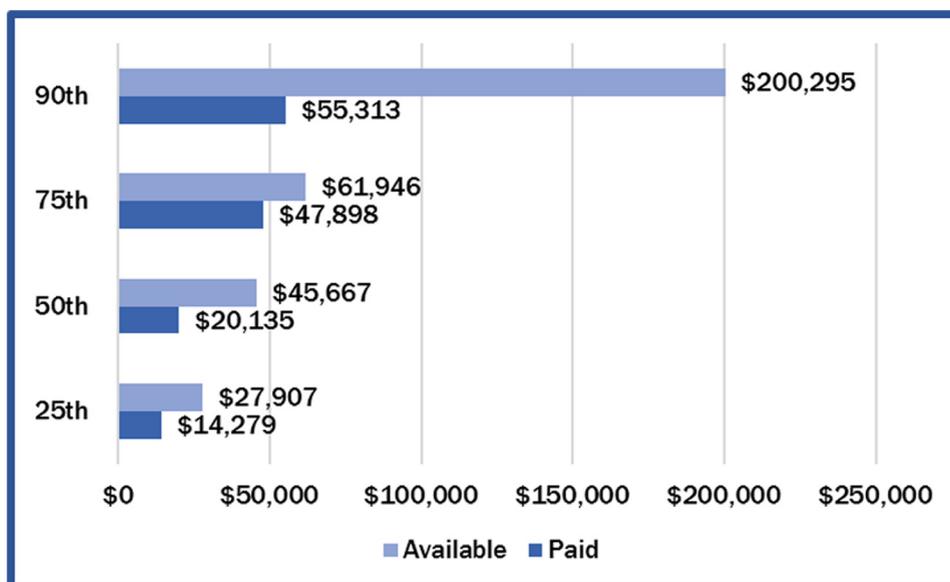
Adapted with permission from the 2018 MedAxiom Report (41).

Conversely, some activities may lend themselves to savings, thus rendering monetary value. In practice, the source of funds to compensate cardiologists for non-wRVU-generating activities is most often the clinical enterprise. To create a bonus pool for teaching excellence, leadership and/or citizenship, a program may decide to

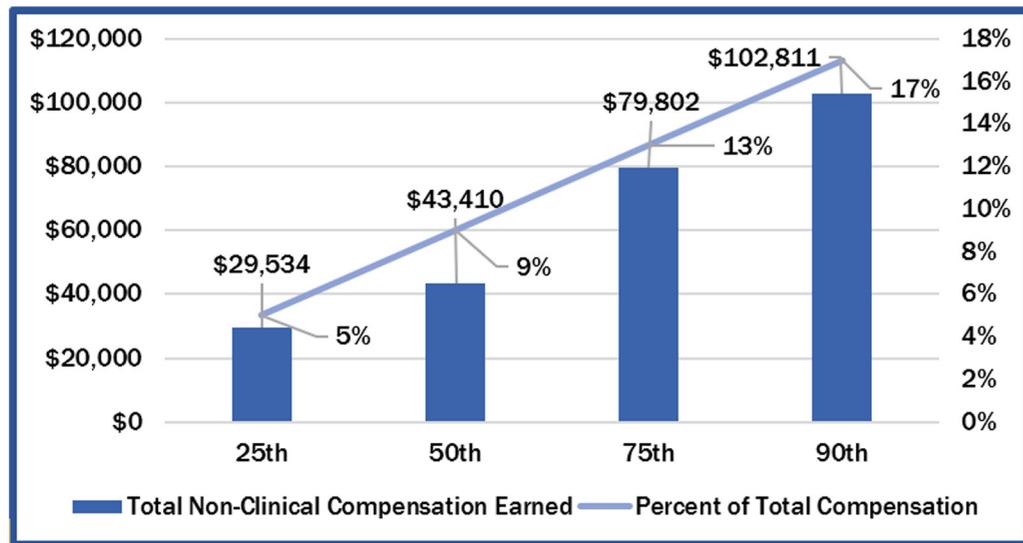
reduce the salary value of a clinical wRVU (i.e., “tax” the enterprise) to make money available for nonbillable activities that may not have other sources of funds.

Administrative compensation provides support for time spent in service line, lab, or other oversight, and is often determined based on hourly time tracking by

FIGURE 2B 2017 MedAxiom Data Showing Available Funds Per Physician for Non-RVU Work Compared With Dollars Actually Paid



Adapted with permission from the 2018 MedAxiom Report (41).

FIGURE 3 2017 MedAxiom Data Showing Nonclinical Compensation as a Percentage of Total Compensation by Quintile of Total Compensation

Adapted with permission from the 2018 MedAxiom Report (41).

cardiologists to ensure compliance with Stark laws. Valuation of hourly rate or other metrics can be estimated from data from leading surveys and practice support organizations, such as Medical Group Management Association (42) and MedAxiom, but these data must be used cautiously, with an understanding of the source, methodology, survey specificity, accuracy of reporting entities, and how the payment is designed. It can be difficult to identify specific market data to guide valuation, although current data (43,44) suggest hourly pay for specialty-specific, nonclinical (or non-wRVU) work ranges from \$160 to \$300/hour, with adult cardiology often being in the \$200-\$250/hour range (based on clinical fair market value). It is important to note that although regulations require institutions to pay physicians fair market value, determination of these rates can be complex. Clear communication and understanding of the scope and nature of non-wRVU time is critical. One must take into account the loss of wRVU-generating activities when determining this critical hourly rate (45).

Many but not all organizations also include the opportunity to earn a bonus based on performance on one or more of a variety of different activities across all mission areas. This is especially true for academic institutions, which generally place greater emphasis on teaching and research than pure clinical practices. However, the lower salaries generally seen in academics may make it harder to recruit and retain motivated and skilled cardiologists, possibly adversely affecting the clinical as well as research and education missions.

Whereas the funds used to support administrative efforts are often contributed by the relatively resource-rich environments of a health system or hospital, support for the academic missions of education and research often depends on relatively resource-poor medical schools and underfunded graduate medical education programs. Further, valuing effort in academic programs is particularly difficult in the absence of a clear unit of work such as a wRVU or logged time spent. To address this problem, some practices and programs have adopted time-based value units for clinical and nonclinical work. Others have generated complex productivity metrics (see Table 1) and tracking mechanisms (46) for nonclinical mission areas, while still others simply use academic rank or set actual salary support to that generated by grant funding or a compensated teaching role. Balancing practice plan compensation with medical school salary is an additional source of complexity for some academic programs; each institution must reconcile sources of payroll dollars with actual effort and mission. Finally, both academic and practice organizations may require a certain level of minimum performance or “vesting” to be eligible for a bonus pool. Such performance can be addressed in many ways, ranging from a benchmarked wRVU target as a level of clinical productivity to timeliness in medical record keeping to citizenship (participation in group activities such as attendance at grand rounds).

In academic programs, job descriptions are often thought of as the combination of percentage of effort in a variety of activities, with each potentially paid at a

different rate, greatly complicating the ability to determine fairness. Similarly, salaries may vary by status on the tenure track. Because determinations of excellence may be somewhat subjective, it is imperative that equity be an explicit consideration in allocating such funds and that equity be tracked as part of regular reviews.

3.4. Value-Based Compensation and Team-Based Care

The passage of the Medicare Access and CHIP Reauthorization ACT in 2015, which created the Quality Payment Programs, laid out the pathway for promoting quality- or value-based reimbursement, beginning with 2017 as the first year of gathering benchmark data and impacting compensation in 2019. Commercial insurers are following suit in a variety of different programs. As the entire healthcare industry struggles to understand the implications of this shift from fee-for-service to value-based reimbursement, it is imperative that physicians—whether academic, private, or integrated/employed—think hard and creatively so that compensation models evolve along with reimbursement models and industry trends (47). The movement to value will eventually be reflected in an increasing percentage of compensation being tied to metrics other than clinical production. Successfully adapting organizations will keep a watchful eye on ensuring that behaviors and activities are incentivized appropriately and will be astute in creating economic alignment between cardiologists and their organizational objectives. With 2017 MedAxiom data showing only 9% of compensation tied to nonclinical production metrics (at the 50th percentile of total earnings) and productivity-based compensation remaining entrenched, there is a long road ahead (Figure 3) (41).

Although the vision for future compensation models also includes team-based care, current models largely remain productivity/wRVU based. However, compensation models are beginning to change to more accurately reflect the critical role cardiologists play in the value world and to reflect changes in care delivery, including provision of clinical services throughout a patient's transitions of care, the growth of teamwork, and increasing reliance on measures of efficiency and exceptional patient outcomes. The fear of putting compensation "at-risk" for the meeting of these value or quality goals has been one of the key reasons for the slowness in adoption. In addition, federal Stark laws prohibiting physician referral to an entity in which he or she has a financial relationship are often blamed for the inability to fully migrate to more value-based modeling. The realities of legal and regulatory mandates also remain significant impediments. However, the design and execution of specific, mutually agreed-upon quality or operational metrics—often based on achieving specific Quadruple Aim targets of better care at a lower cost—are needed to truly align compensation

with better patient care, improved outcomes, and increased patient satisfaction. Legal as well as payer changes are thus needed before compensation models can more fully embrace and reward team-based care and patient outcomes.

4. OPPORTUNITY EQUITY AND DIVERSITY

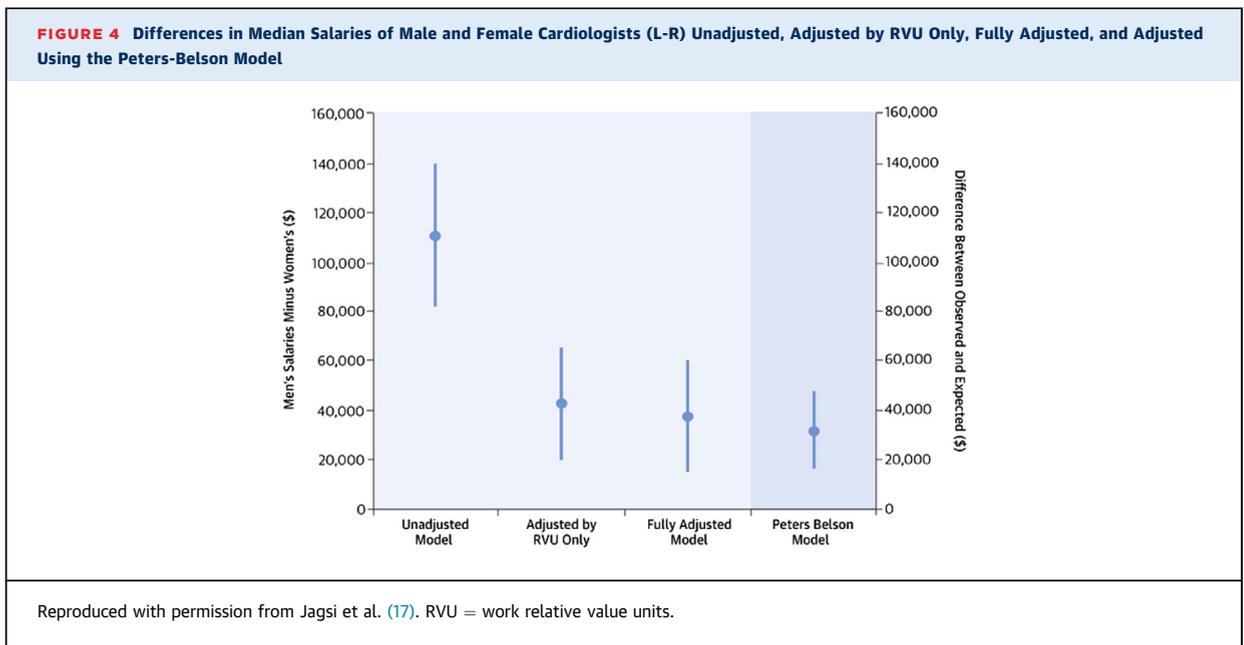
4.1. Equity in Compensation and Opportunity for Diversity and Inclusion

Critical to any equitable compensation plan is equity of opportunity. The beneficial impact of a well-designed, transparent model can be lost if participating individuals do not have access to patients and resources, such as tools and support personnel, that allow them to achieve at a high level and thereby improve their compensation. Lack of career and professional opportunity will discourage even the most optimistic individuals from maximal performance and hamper recruitment and retention efforts. Just as salary and bonuses should be reviewed annually for fairness, so too should access to resources, discretionary funding, and opportunity be reviewed regularly with an eye to ensuring equity.

Recently, cardiology in general and the ACC in particular have recognized a need to develop a more strongly inclusive culture to address the persistent lack of diversity among cardiologists (45). Promoting diversity in cardiovascular medicine may foster creativity and innovation within organizations. Diversity promotion may also improve both access to talent and healthcare quality by promoting health equity for our diverse patient populations, thereby increasing impact at the system, organization, and clinician levels (45,48). Increasing the talent pool of under-represented minority health professionals in cardiology is a critical step to improving the cultural competence of the healthcare system (48).

Opportunity equity is a vital component of diversity promotion. Openly addressing this sensitive subject, and its relationship to compensation plan philosophy, is an important aspect of acknowledging the disparities prevalent in our profession. In particular, while competencies are critical considerations for potential leaders, equally capable individuals may be wrongly considered less competent because of implicit bias or because they have not been provided with opportunities to prove their worth. Failure of visible and earnest senior management leadership support can inadvertently signal a perceived triviality of the issue to an organization, creating conflict and potentially diminishing the rigor of compensation plan adherence and implementation.

Lack of compensation equity may be among the several obstacles that likely contribute to the low proportion of female medical graduates pursuing cardiology careers



(45). The salary gap between male and female physicians persists and widens with age despite adjustment for multiple factors (6). This is also true among cardiologists, with significant gaps in pay for male and female cardiologists even after adjusting for over 100 practice and personal factors (Figure 4) (17).

Women and other under-represented cardiologists (URCs) should not be disproportionately asked to perform traditionally undervalued but essential work such as educational activities, committee work, and mentoring. Alternatively, such activities can be appropriately valued by inclusion among the performance metrics for all.

Studies have shown improved outcomes and access to evidence-based preventative care among patients treated by female physicians, improved outcomes in cardiac wRVUs (49), and increased cooperative behavior (a key component of safety and performance) among team members in the operating room when higher numbers of female team members were present (25). Therefore, decreasing systemic barriers to compensation equity and opportunity has the potential to not only encourage more women to pursue cardiology careers, but also enhance the ability of healthcare provider teams to deliver high-quality care and improve health.

In creating a culture of equity, institutions need to consider the role of gender harassment in hindering the development of a diverse and equitable culture. Cardiology has much work to do in this area: nearly two-thirds of female cardiologists reported experiencing harassment or discrimination—a proportion essentially unchanged since this was first measured in 1995 (3). Institutions should move beyond simply ensuring legal

compliance to promoting policies and practices that address gender harassment and foster respect, teamwork, and trust (50).

Improving institutional culture necessitates a strong focus on opportunity equity. This is best addressed by a multipronged approach that must include systems change and advocacy by leadership along with strengthening individuals through skills development training (such as negotiation techniques) and mentorship. Although mentorship has been associated with career success in academic medicine, the availability of and access to appropriate mentors has been limited for women and URCs (6,51). Moreover, as in many fields, female physicians have been shown to negotiate less assertively than their male counterparts and accept less when they do negotiate. Improving negotiation skills requires that both parties understand that negotiations are equally acceptable for men and women and involve not just salary, but also work schedules, clinic or lab space, support staff, and professional development support (52). Similarly, both individuals and leaders need to be aware of and mitigate any systemic biases present in evaluation language or processes used to determine compensation.

While skills development programs focused on mentorship and negotiation have the potential to support women and URCs, institutions need to be cautious of the subtle (or sometimes overt) implication that such groups are at fault for their own challenges (51). Male champions and the commitment of those in power to create real change are necessary to truly remove the glass ceiling. A systems approach to eliminating implicit bias may be more difficult than simply providing training, but is likely

to be more effective in creating the needed cultural transformation. Often efforts to rid organizations of bias through systems changes can be implemented rapidly and at low cost, in turn accelerating cultural change (53). Compensation equity is one such effort that is also exceptionally visible to all.

5. LEADERSHIP AND SUSTAINABILITY

Professional leadership includes the responsibility to proactively address the broad issues of compensation and opportunity equity. The scientific basis of our medical profession is founded on open debate and the encouragement of new ideas; leadership in our profession should be no different. In appointing leaders who value new ideas, debate, and therefore, loyal dissent, we demonstrate the value we place in all stakeholders and in opinions different than our own (54). This foundational openness to new ideas beyond the scientific realm can further a diverse work environment, providing a context for and signaling the value placed on including individuals different than ourselves.

Transparency is an established element of leadership, particularly for compensation philosophy. Workers are more motivated, productive, and collaborative when salaries are transparent (54). Transparency is also a well-recognized and successful strategy for closing pay gaps. Moreover, it has been shown to increase hiring and promotion of women, and likely has a similar effect in other undercompensated groups (55). Leadership may be judged by fairness in compensation procedures (“pay is equitably determined”) and distribution (“pay is fair when compared to others”). Transparent calculation of individual and team goals is paramount, whether under fee-for-service, salary-only, or value-based clinical care. For a given clinical production and set of responsibilities, pay should be clearly calculable and benefits structured in a largely standard manner, thus allowing for individual comparison without violating legal protections or employee confidentiality. Failure to design, communicate, and execute compensation policy with clarity risks distributive justice inequity and harm to high performers of all types. That said, this must be done in a way that preserves institutional norms for privacy and confidentiality.

Senior leadership support is critical—but not sufficient—to ensure the sustainability of effective physician compensation. In academic settings, the department chair and/or dean may provide such support as well as oversight. Other key elements include a clear understanding and the net impact of the compensation plan on group (or medical school or health system) performance and goals. Failing to regularly assess the impact and effectiveness of the plan against system priorities and missions can result in performance and economic misalignment with broader

organizational goals. Such misalignment can further dissociate goals from fairness and broader organizational communication, individual autonomy, and effort. Making net impact (economic, academic, other) clear ties the success of the individual to that of the practice group, academic unit, or health system, a fact that senior leadership can reinforce through regular support and communication.

Implementation of a compensation plan also requires effective human resource practices to ensure implementation as intended, accurate performance measurement and assessment of resources, and clarity of performance at the individual level. This clarity will not only enforce equity as a value, but likely also aid potential conflict resolution. Leaders are encouraged to ensure that there is a “trusted agent” with whom a cardiologist can communicate confidentially regarding any personal questions or suspected inequities. This role may vary by institution but might be filled by physician human resources, an ombudsperson, or a faculty office in a teaching institution.

Administrators should avoid setting starting salary on the basis of a physician’s historical compensation, as inequity often arises as a result of starting compensation disparity. Starting salaries of those at similar rank and subspecialty should not differ. Individual compensation should be adjusted quickly if performance is lagging, although leadership should be sure to also (or first) explore any factors which may be inhibiting maximal performance (including bias) or are the result of unintended consequences of the compensation system design.

Periodic prospective plan reviews of the entire compensation model should occur to ensure that the models continue to meet the organization’s strategic goals, that there is high cardiologist satisfaction, and so on. Such reviews should also include the impact on individuals and include the perspectives of both internal stakeholders and external experts who may offer new or under-represented perspectives on overall plan effectiveness, opportunity equity, resource availability, and equity for under-represented groups and women. Such periodic reviews, with appropriate legal counsel as needed, serve to further perceived plan fairness and can help employers protect against or limit liability.

6. CONCLUSIONS

Compensation and opportunity equity are critical complements of a fair and professional work environment, are a successful business model for cardiologists, and should reflect the ACC’s core values: patient-centered, teamwork and collaboration, and professional excellence; and its mission of “Transforming Cardiovascular Care and Improving Heart Health.” Designing and implementing an equitable compensation model requires leadership and strategic thinking. A plan designed in a vacuum, or one

that does not support the vision and mission of the organization, will not be sustainable.

Across the house of cardiology, leadership has a responsibility to ensure equity. While differences in institutional, practice, or academic unit missions, goals, and situations mandate that each compensation model be individualized, key principles exist. These include equity, clarity, transparency, prospective development, accountability, flexibility, and sustainability. Further, no compensation plan can provide fairness unless there is also equal opportunity to maximize performance and advancement. The ACC believes that adherence to these principles will improve the performance and satisfaction of our cardiovascular workforce, enhance team-based care, and ultimately benefit patient and population health.

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APPENDIX 1. AUTHOR RELATIONSHIPS WITH INDUSTRY AND OTHER ENTITIES (RELEVANT)—2019 ACC HEALTH POLICY STATEMENT ON CARDIOLOGIST COMPENSATION AND OPPORTUNITY EQUITY

To avoid actual, potential, or perceived conflicts of interest that may arise as a result of industry relationships or personal interests among the writing committee, all members of the writing committee, as well as peer reviewers of the document, are asked to disclose all current healthcare-related relationships, including those existing 12 months before initiation of the writing effort. The ACC Solution Set Oversight Committee reviews these disclosures to determine what companies make products (on market or in development) that pertain to the document under development. Based on this information, a writing committee is formed to include a

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APPENDIX 2. PEER REVIEWER INFORMATION: 2019 ACC HEALTH POLICY STATEMENT ON CARDIOLOGIST COMPENSATION AND OPPORTUNITY EQUITY

This table represents the individuals, organizations, and groups that peer reviewed this document. A list of corresponding comprehensive healthcare-related disclosures for each reviewer is available [online](#).

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ACC = American College of Cardiology; VA = Department of Veterans Affairs; VAMC = Veterans Administration Medical Center.

APPENDIX 3. ONLINE SUPPLEMENT

The ACC has created a repository of web-based resources and tools to accompany this document and in support of the ACC's efforts around compensation equity. The repository can be found at [ACC.org/guidelines](https://www.acc.org/guidelines). The available contents include this ACC Health Policy Statement, as well as derivative downloadable slide decks summarizing the principles and informing how to implement a compensation plan.

Also available in the repository are sample compensation plans for both academic and practice groups, a bibliography of scholarly papers, and other supporting materials.