



Gender Disparity in Composition and Compensation Among Maryland Hospital Executives

Journal of Health Disparities Research and Practice

Volume 13 | Issue 4

Article 2

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2020

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Recommended Citation

Lobaton, Gilberto O.; Marrache, Majd MD; Puvanesarajah, Varun MD; LaPorte, Dawn M. MD; Jain, Amit MD; and Aggarwal, Shruti MD (2020) "Gender Disparity in Composition and Compensation Among Maryland Hospital Executives," *Journal of Health Disparities Research and Practice*: Vol. 13 : Iss. 4 , Article 2. Available at: <https://digitalscholarship.unlv.edu/jhdrp/vol13/iss4/2>

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Abstract

Introduction: Senior executive positions in hospitals have traditionally been held by men, and do not reflect the gender, racial, ethnic, and cultural diversities of the communities they serve. Despite sex parity in medical school graduates, women remain underrepresented in hospital executive leadership positions. In this study, the authors examined differences in gender composition and compensation of Maryland hospital executives.

Methods: The authors examined 47 Maryland hospitals' publicly available tax forms from 2013-2018. Data collected included hospital revenue and executive positions' count, salary, and gender. Executive positions included President and/or Chief Executive Officer (P/CEO), Chief Financial Officer (CFO), Chief Medical Officer (CMO), Chief Nursing Officer (CNO), and Chief Operating Officer (COO). All monetary values were inflation-adjusted to the 2017 dollar.

Results: Women executives were underrepresented across most roles: P/CEO (41/272, 15%), CFO (72/260, 28%), CMO (28/182, 15%), and COO (44/147, 30%). CNO showed a higher proportion of women executives (129/140, 92%). There were no significant changes in the proportion of women executives over the study period ($p=0.19$). Men CNO's had significantly higher salaries as a percentage of hospital revenue (0.16% vs 0.12%, $p=0.04$) and men COOs had significantly higher salaries as a percentage of hospital positive profit (3.65% vs 2.24%, $p<0.01$).

Conclusion: Data from Maryland hospitals suggest that women remain underrepresented in healthcare executive roles. Further, women executives are generally undercompensated compared to men in similar roles. This study further highlights the need for mentorship and dedicated career pathways to improve women representation in leadership roles in healthcare.

Keywords

IRS 990 data; executive compensation; hospital CEO compensation; gender wage gap

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Journal of Health Disparities Research and Practice
Volume 13, Issue 4, Winter 2020, pp. 10-17

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ABSTRACT

Introduction: Senior executive positions in hospitals have traditionally been held by men, and do not reflect the gender, racial, ethnic, and cultural diversities of the communities they serve. Despite sex parity in medical school graduates, women remain underrepresented in hospital executive leadership positions. In this study, the authors examined differences in gender composition and compensation of Maryland hospital executives.

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INTRODUCTION

It is widely accepted that diversity in the healthcare industry fosters an environment for clinical excellence and better patient care outcomes. Healthcare organizations, and its consumers, benefit from reflecting the gender, racial, ethnic, and cultural diversities of the communities they serve (Herrin et al., 2018; Lantz, 2008).

In the United States, women make up a majority of healthcare consumer and worker force. While the proportion of women is high in care giving roles such as nursing, the number of female physicians is less than men (Bureau of Labor Statistics, 2019). This seems to be changing, as for the past twenty years almost 50% of medical students have been women (Cheesman Day, Jennifer; Christnacht, 2019; Wehner, Nead, Linos, & Linos, 2015). In the 2017-2018 medical school application cycle, women matriculants surpassed men for the first time (“2019 FACTS: Applicants and Matriculants Data | AAMC,” n.d.).

While sex parity is being achieved in the early stages of medical careers of physicians, women remain severely underrepresented in leadership roles (Song, Lee, Toth, Singh, & Young, 2019; Stone, Miller, Southerlan, & Raun, 2019). Several studies show that among executive healthcare leadership, gender differences exist in the types of leadership roles women attain (Hoss, Bobrowski, McDonagh, & Paris, 2011; Kalaitzi, Czabanowska, Fowler-davis, & Brand, 2017; Marquez et al., 2020; Sexton, Lemak, & Wainio, 2014; Soklaridis et al., 2017; Song et al., 2019; Wehner et al., 2015; Wong, McKey, & Baxter, 2018; Yedidia & Bickel, 2001). A recent report of women in healthcare leadership across the country estimates that women represent about 30% of C-suite executive teams and 13% of CEOs (Stone et al., 2019).

The goals of our study were to examine differences in gender composition and compensation of Maryland hospital executives.

METHODS

We recorded information from all 47 of Maryland’s not-for-profit acute care hospitals (“Maryland Hospital Association Member Hospitals,” n.d.) using the available Internal Revenue Service Form 990 (tax filing years: 2013-2018). The IRS Form 990 is the tax return filed by not-for-profit organizations. It contains a variety of information, including hospital characteristics, financial statements, and compensation information for key executives and board members. In 2009, the Maryland General Assembly required Maryland hospitals to submit their most recently filed IRS Form 990 to the Health Services Cost Review Commission (HSCRC) for the forms to be posted publicly on the Commission’s website (“Maryland Health Service Cost Review Commission, Maryland Hospital IRS 990 Forms,” n.d.). Publicly available hospital IRS 990 forms can be up to two years behind the calendar year for which they are filed. Forms not found on the HSCRC website were located using ProPublica’s Nonprofit Explorer, a publicly available database that publishes non-profit organization’s tax returns (“ProPublica Nonprofit Explorer,” n.d.). Our final sample comprised of 276 IRS 990 Forms.

Part VII, Section A of the IRS Form 990 includes a table that lists Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees by name and title, along with their reported compensation for the tax year. Position titles typically reported include executive level managers, and in this study, we chose to record information on the common C-suite positions: President or Chief Executive Officer (P/CEO), Chief Financial Officer (CFO), Chief Medical

Officer (CMO), Chief Nursing Officer (CNO), and Chief Operating Officer (COO). Hospitals with no reported P/CEO, CFO, CMO, CNO, or COO, were recorded as blank data.

To calculate each executive's total annual compensation, we summed the total reportable compensation from the hospital, related organizations, and other forms of compensation from both the hospital and related organizations (Part VII, columns D, E, and F) similar to a previous study by Song *et al* (Song et al., 2019). This included salary and wages paid by the hospital and related organizations, and value added from additional forms of compensation, such as deferred compensation, employer provided health benefits, life insurance, and other benefits not recorded on an individual's W-2. If an executive position had an individual listed as an interim for a certain position, we added total compensation allotted by the hospital for that executive position by combining both the interim and non-interim executive compensation. In order to control for different hospital characteristics, we divided each executive's salary by the hospital revenue and hospital positive profit for that year, reported as "% of Hospital Revenue" and "% of Hospital Profit". Zero and negative profits were excluded from the statistical analysis. Because we compared salaries across different years, we used the United States Bureau of Labor Statistics Consumer Price Index Inflation calculator to adjust all salaries to the 2017 dollar ("United States Bureau of Labor Statistics Consumer Price Index Inflation Calculator," n.d.).

Gender was identified by searching the executive's name entered by the hospital on hospital websites, newspaper articles, press releases, and LinkedIn.com profiles. If an executive position had an individual listed as an interim for a certain position, we recorded the gender of the non-interim executive for that position.

Median was used to describe continuous variables and count (percent) was used to report categorical variables. Shapiro-Wilk test of normality and visualization of Q-Q plot was used to assess for normality of salary data. As the salary data were not normally distributed, we used two sample Wilcoxon sign-rank test to assess for significant differences in executive salaries. Cochran-Armitage test for trend was used to assess for significant annual changes in female executive composition. All statistical analyses were performed using STATA, version 15.1 (StataCorp. 2017. Stata Statistical Software: Release 15. College Station, TX: StataCorp LLC.). Significance was set at $p < 0.05$.

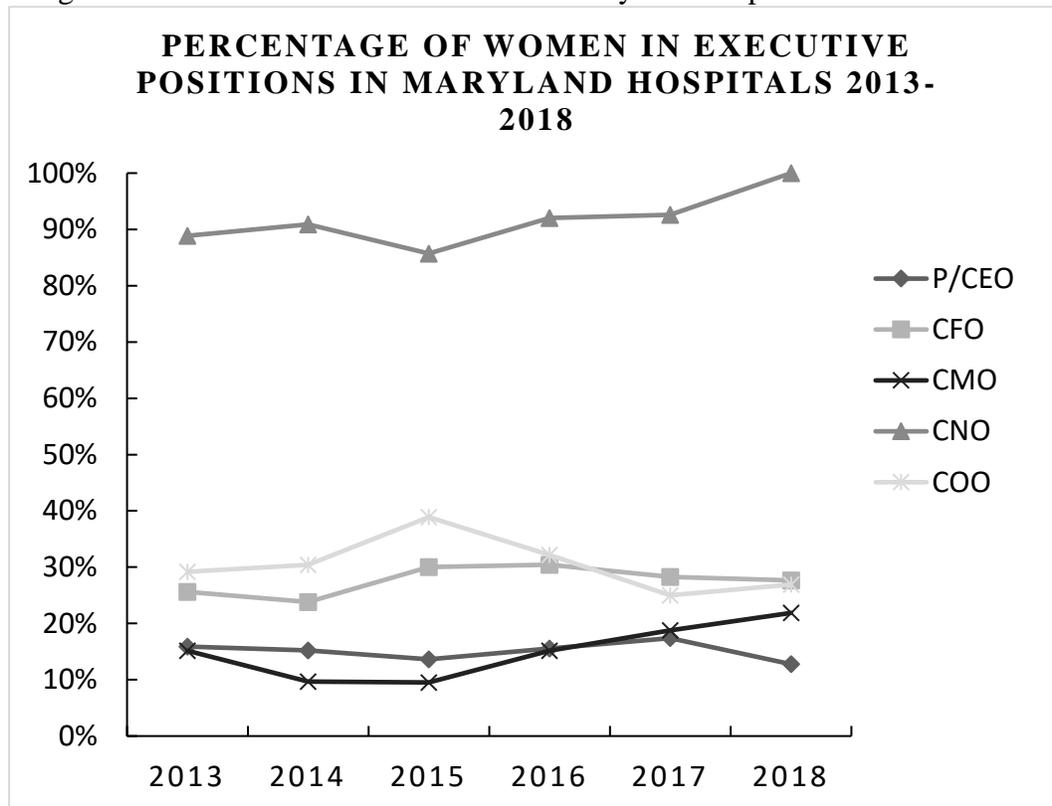
RESULTS

Hospital Executive Composition

Overall, 314/1001 (31%) of Maryland Hospital executives were women. This percentage did not change significantly over the study period ($p = 0.19$).

Women held substantially less healthcare executive positions compared to men: P/CEO (41/272, 15% women), CFO (72/260, 28%), CMO (28/182, 15%), and COO (44/147, 30%). For the role of CNO, 129/140 (92%) of the positions were held by women. Figure 1 shows a graphical representation of change in percentage of women executives for each position across the study period.

Figure 1: Percentage of Women in Executive Positions in Maryland Hospitals



Abbreviations: President and/or Chief Executive Officer (P/CEO), Chief Financial Officer (CFO), Chief Medical Officer (CMO), Chief Nursing Officer (CNO), Chief Operating Officer (COO).

Hospital Executive Compensation

Unadjusted by hospital revenue or profit, median salaries were significantly higher for men CFOs (\$512,914 vs \$420,237, $p=0.001$) (Table 1). Once adjusted for hospital revenue, the median salaries were significantly higher for men in the category of CNOs (0.16 vs 0.12, $p=0.04$; Table 1). Once adjusted for hospital positive profit, the median salaries were significantly higher for women in the category of CMO (7.76 vs 3.64, $p<0.01$) and for men in the category of COO (3.65 vs 2.24, $p<0.01$; Table 1).

Table 1: Median Salary and % of Hospital Revenue for Executive Positions by Gender in Maryland Hospitals 2013-2018

	N	Median Salary (Range)	P value	% of Total Hospital Revenue	P value	% of Total Hospital Profit	P value
P/CEO							
M	231	\$1,038,192 (\$126,093-\$7,146,606)		0.40%		8.50%	
F	41	\$1,003,506 (\$176,815-\$1,930,247)	0.2	0.39%	0.72	6.08%	0.13
CFO							
M	188	\$512,914 (\$15,983-\$2,340,836)		0.18%		3.87%	
F	72	\$420,237 (\$114,831-\$1,340,266)	.001	0.18%	0.93	3.79%	0.59
CMO							
M	154	\$521,747 (\$13,550-\$1,952,322)		0.16%		3.64%	
F	28	\$483,065 (\$298,424-\$1,060,588)	0.43	0.18%	0.71	7.76%	<0.01
CNO							
M	11	\$358,204 (\$139,714-\$598,610)		0.16%		3.19%	
F	129	\$315,193 (\$123,119-\$1,657,878)	0.57	0.12%	0.04	2.63%	0.97
COO							
M	103	\$430,365 (\$108,513-\$1,248,410)		0.14%		3.65%	
F	44	\$546,676 (\$128,937-\$1,959,175)	0.01	0.13%	0.18	2.24%	<0.01

Abbreviations: President and/or Chief Executive Officer (P/CEO), Chief Financial Officer (CFO), Chief Medical Officer (CMO), Chief Nursing Officer (CNO), Chief Operating Officer (COO).

DISCUSSION

Despite efforts to close the gender gap in the workforce, our study found that women remain underrepresented in executive roles in Maryland hospital systems. Our results revealed that there were fewer women than men in all executive roles except Chief Nursing Officer. Our results also revealed that the unadjusted median salaries were significantly higher for men CFOs. Once adjusted by hospital revenue, men CNOs had a significantly higher median salary. Once adjusted by hospital positive profits, men COOs had a significantly higher median salary. However, we found that adjusted by hospital profits, women CMOs had a significantly higher median salary.

Our findings are consistent with prior literature which reports that there is lack of sex parity in healthcare leadership (“2019 FACTS: Applicants and Matriculants Data | AAMC,” n.d.; Marquez et al., 2020; Stone et al., 2019; Wehner et al., 2015). Number of women in executive roles has remained relatively stagnant over the past few decades (Lantz, 2008; Song et al., 2019; Yedidia & Bickel, 2001). A recent report estimates that women represent only about 30% of C-suite executive teams and 13% of CEOs (Stone et al., 2019). There is also a significant disparity in salaries of women healthcare executives compared to men executives (Lantz, 2008; Wong et

al., 2018). A study showing that women CEOs earn 23% less than their men counterparts (Song et al., 2019) reflects the significant disparity. Even though men CNOs made up a minority of our sample (11/140, 8%), they had a significantly higher percentage of hospital revenue as compensation, a finding consistent with a previous report (Westphal, 2012).

Reasons for these trends are multifactorial and include both direct and implicit bias. Women tend to be limited by persistence of traditional gender roles and familial restraints which may lead to decreased geographic mobility and unequal access to opportunities (Hoss et al., 2011; Kalaitzi et al., 2017; Lantz, 2008; Marquez et al., 2020; Soklaridis et al., 2017; Song et al., 2019; Stone et al., 2019; Wong et al., 2018; Yedidia & Bickel, 2001). Inequitable mentorship and networking between men and women is another contributory factor (Kalaitzi et al., 2017; Lantz, 2008; Marquez et al., 2020; Stone et al., 2019; Wong et al., 2018; Yedidia & Bickel, 2001). While men generally project more confidence and are more proactive in seeking mentorship, women tend to be low in self-confidence and doubt their abilities and success, and are less likely to seek out mentorship (Stone et al., 2019). Likewise, networking seems to be more organic for men, as they have more in common with their predominantly men senior leaders and can form personal connections over time (Stone et al., 2019). In regards to the wage gap, it has been shown widely that women negotiate less and are more willing to accept lower pay (Song et al., 2019).

Although raising awareness of inequities and education regarding implicit biases and how they affect women leadership in the workforce is important (Stone et al., 2019), some thought leaders have called for a more formal, policy-based approach (Lantz, 2008; Yedidia & Bickel, 2001). This solution needs to be multi-pronged and include commitment to the recruitment, retention, and development of underrepresented candidates (Sexton et al., 2014). Creating mentorship initiatives is important as this aids career advancement through providing exposure to hospital leadership, creating avenues for interaction and increasing visibility with the senior leaders (Kalaitzi et al., 2017; Lantz, 2008; Sexton et al., 2014; Stone et al., 2019).

Our analysis is limited due to its retrospective, cross-sectional nature. The IRS 990 Form does not include characteristics that maybe relevant such as: age, education, experience, and tenure, which have been shown to correlate with compensation (Brickley, Van Horn, & Wedig, 2010). Our statistical analysis excluded years in which a hospital reported negative profits, which may have had an impact on executive compensation for that year. In addition, our dataset does not include “for-profit” hospitals, which may have a different approach for providing compensation of their executive employees. Despite these limitations, our results add to a growing body of evidence of gender inequity in opportunity and wage in healthcare.

CONCLUSION

Women remain underrepresented in many hospital executive positions, and are generally undercompensated compared to men in similar roles. This study further highlights the need for mentorship and dedicated career pathways to improve women representation in leadership roles in healthcare.

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Journal of Health Disparities Research and Practice Volume 13, Issue 4, Winter 2020

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