

Gender disparity within the Canadian Urological Association: A comparison with the Quebec Urological Association

Sophie Abou Samra, Ashley Cox, Naeem Bhojani

¹Université de Montréal, Montreal, QC, Canada; ²Dalhousie University, Halifax, NS, Canada*Acknowledgement: The authors wish to thank the Equity, Diversity, and Inclusion Committee of the CUA for their support in this study, as well as the CUA and QUA offices for providing the data.***Cite as:** Abou Samra S, Cox A, Bhojani N. Gender disparity within the Canadian Urological Association: A comparison with the Quebec Urological Association. *Can Urol Assoc J* 2023 September 29; Epub ahead of print. <http://dx.doi.org/10.5489/cuaj.8436>

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Corresponding author: Dr. Sophie Abou Samra, ¹Université de Montréal, Montreal, QC, Canada; sophie.abou.samra@umontreal.ca

ABSTRACT**Introduction:** The aim of this study was to examine gender diversity within the Canadian Urological Association (CUA) and to compare it with the Quebec Urological Association (QUA).**Methods:** A retrospective review of women's representation regarding membership, committees' composition, awards, grants, and conferences between 2012–2022 was performed.

Data and gender were extracted from databases and annual meeting programs provided by the CUA and the QUA.

Results: In 2022, females accounted for 18% (256/1431) of the membership at the CUA and 23% (52/228) at the QUA. The female proportion of committee members at the CUA increased from 9% (63/676) from 2012–2016 to 14% (177/1230) from 2017–2022 ($p \leq 0.0001$). In 2022, the QUA had a significantly higher proportion of female committee members than the CUA, with 39% (15/38) vs. 22% (50/225) women ($p = 0.0226$), respectively. Moreover, from 2012–2022, 11% (5/46) of the CUA awards were given to women, whereas 38% (13/34) of the award winners at the QUA were women over the**KEY MESSAGES**

- Improvement in terms of gender diversity has been observed at both CUA and QUA over the past decade.
- Female representation at the QUA has outpaced that of the CUA.

same time period ($p=0.0038$). Between 2012 and 2022, there was 16% (20/126) female CUA grant recipients and 44% (14/32) at the QUA ($p=0.0095$). The proportion of grants awarded to women at the CUA increased from 13% (5/39) in 2012–2016 to 17% (15/87) in 2017–2022. Two percent (1/53) of the plenary invited speakers at the CUA annual meetings from 2012–2016 were women, compared with 21% (14/66) at the QUA annual meetings from 2017–2022 ($p=0.0016$).

Conclusions: Over the past 10 years, there has been an increase in women's representation at the CUA and the QUA; however, data show that the increase in female representation at the QUA has outpaced that of the CUA.

INTRODUCTION

Over the past decades, there has been great progress regarding the inclusion of women in the medical and surgical fields. However, although the number of women pursuing a urology residency has increased, there is still gender disparity in leadership positions in urology.¹ Gender diversity is becoming an increasingly important matter in the medical field. Indeed, there is a growing body of literature showing that females are underrepresented in urology leadership positions such as in senior academic positions², editorial boards³ and society conferences⁴. However, there are few studies that examine gender equity in medical associations.⁵ As explained by Silver et al. (2017), medical associations are seen as « gatekeepers » for career advancement, because of the major leadership opportunities they provide to its members.⁵

Literature that examines gender diversity in medical associations should be considered as a first step towards gender equity.⁵ Thus, the purpose of our study is to examine women's representation at the Canadian Urological (CUA) association from 2012-2022 and to do a comparison with the Quebec Urological Association (QUA). Females represent approximately 27% of the practicing urologists in Quebec, in comparison to only 10% in the other Canadian provinces. Therefore, we hypothesised that there would be greater progress in terms of gender diversity within the QUA compared to the CUA.

We will focus, as suggested by Silver et al. (2017), on the representation of women in membership, leadership positions, annual congresses, awards, and scholarships.⁵ This is the first study that provides an overview of gender diversity within the CUA.

METHODS

This is a retrospective cross-sectional study that includes a comparison between the CUA and QUA in terms of gender diversity from 2012 to 2022. We reviewed membership representation, leadership positions on committees, invited speakers at the annual

meeting, award, and scholarship recipients. The main outcome was the evolution of the proportion of females over the years in leadership positions at the CUA and the QUA. Data from 2012-2022 was acquired from the CUA and the QUA offices. Gender of the CUA membership was obtained from a database that held the member's self-identified gender. The QUA provided annual congress brochures from which data was extracted. In the brochures, the names of the urologists were preceded by the French abbreviation « Dre » or « Dr », indicating gender. Gender was considered as binary.

Membership gender representation could only be obtained for the years 2021 and 2022 since the CUA started tracking its member's gender only in 2021. For 2021, an estimation of the representation of gender in the membership was given by the CUA. For the year 2022, we estimated membership representation based on the CUA database from November 2022. Invited speakers at annual meetings included both local and foreign experts invited to deliver a presentation. There was no QUA annual meeting in 2020 due to the COVID-19 pandemic.

Analysis was performed using GraphPad Prism 9.4.1. Chi-squared tests were used to compare the categorical variables. A p-value <0.05 was considered statistically significant. After consultation with the University of Montreal Health Center Research Center ethics committee it was determined that institutional board approval was not required as no confidential information was used.

RESULTS

Membership

In 2021, the CUA estimated that there was 16% of females and 84% of males. In 2022, according to the CUA database, 18% (256/1431) of the members self-identified as females, 81% (1162/1431) as males and 1% (13/1431) did not self-identify their gender. At the QUA, females represented 22% (47/212) of the membership in 2021, and 23% (52/228) in 2022. (Table 1) There was a greater proportion of female membership at the QUA than at the CUA in 2022 (23% vs 18%).

Representation on committees

The proportion of female committee members at the CUA significantly increased from 9% (63/676) between 2012-2016 to 14% (177/1230) between 2017-2022 ($p < .0001$). For each year between 2012-2022, the QUA had a significantly greater proportion of female committee members than the CUA. (Table 2, Figure 1) In 2022, the female representation on committees was significantly higher at the QUA (39%) compared to the CUA (22%) ($p = 0.0226$).

Female representation among committee chairs was significantly higher at the QUA than at the CUA, with respectively 42% (11/26) vs 4% (3/79) in 2012-2016 ($p < 0.0001$), and 52% (12/23) vs 8% (8/104) in 2017-2022 ($p < 0.0001$). Surprisingly, at

the QUA in 2012-2016 and 2017-2022, there was a higher proportion of female committee chairs than female committee membership. All past CUA and QUA presidents between 2012-2022 have been male.

Annual congress

Between 2012-2016 to 2017-2022, the proportion of female plenary invited speakers significantly increased from 2% (1/53) to 21% (14/66) at the CUA ($p=0.0016$).

At the QUA, there was an increase from 16% (11/69) to 27% (25/91) ($p=0.0837$). (Table 4)

To note that, in 2022 53% (9/17) of invited plenary faculty were women at the QUA annual conference, compared to only 23% (3/13) at the CUA annual meeting ($p=.0980$).

Awards and scholarships

Between 2012-2022, 11% (5/46) of the CUA awards were given to females, whereas 38% (13/34) of the award winners at the QUA ($p=0.0038$) were women. The proportion of awards given to women increased at both the CUA and the QUA, from respectively 8% (2/24) and 33% (6/18) in 2012-2016, to 14% (3/22) and 44% (7/16) in 2017-2022. However, at the QUA the prestigious *Jean Charbonneau prize* has never been awarded to a woman. Similarly, at the CUA, prestigious awards such as the *Lifetime achievement award*, or the *Honorary membership* award has only had male recipients (see table 3).

Between 2012-2022, 16% (20/126) of CUA grant recipients were female vs 44% (14/32) at the QUA ($p=0.0095$). The proportion of grants awarded to women at the CUA increased from 13% (5/39) in 2012-2016 to 17% (15/87) in 2017-2022 ($p=0.5301$). At the QUA, it increased from 22% (4/18) in 2012-2016 to 71% (10/14) in 2017-2022 ($p=0.0054$).

DISCUSSION

Our data shows there has been undeniable progress towards gender equity over the past years at the CUA. However, we are far from reaching gender parity and there is still a significant gap compared the QUA, which dates to beyond the last decade.

Hird et al. (2020) found that in comparison to other provinces, there was more actively practicing female urologists in Quebec than other parts of Canada.⁶ They explain that there are more female medical students and physicians in Quebec and that there may be more female mentorship and early urology exposure for female students. Hird et al. (2020) also mentions that in Quebec, there are guidelines put in place by the Quebec Federation of Medical Residents regarding duty hours restriction and maternity leaves, allowing for greater career flexibility.⁶ Together, these factors foster an equitable learning environment, likely promoting more women entering surgical specialties such as urology.

Furthermore, it is encouraging to notice that in 2022, in comparison to the whole CUA membership, there was greater female representation in committee compositions, awards and scholarship recipients, and invited plenary speakers. This increase in female representation among organizing, nominating and award committees will be beneficial for future inclusion of women. Indeed, an American case study showed that by increasing the number of females who hold decision making positions and providing transparent gender statistics to the program committee, they managed to achieve gender equity at the conference.⁷

However, within the CUA, females are underrepresented in leadership roles such as committee chairs. Our results showed that there was an increase in the proportion of women among the CUA committee chairs from 2012-2016 to 2017-2022. Although this trend is encouraging, more work is needed to reach gender equity in leadership positions in comparison to the QUA. Indeed, our data showed that female representation among committee chairs was significantly higher at the QUA than the CUA, with around half of the committee chairs being females at the QUA in the past years. Also, female committee chairs accounted for a greater proportion than female committee members at the QUA. At both the QUA and CUA, there was no female president from 2012-2022. However, it is interesting to mention that in 2008-2011, it was the first and only time a woman was president of the QUA. There is yet to be a female president of the CUA. The differences in the representation of women in leadership roles on committees may be attributed to the variations in the nomination process between the two associations. In the case of the CUA, members are required to submit their applications to be considered by the nominating committee, whose choices are then presented to the voting membership at the annual meeting. Conversely, the QUA also has a nominating committee, but the selection process is less strict. For executive positions, the QUA committee not only approaches and recommends individuals within the association, but also considers volunteers. The nomination is accepted by the assembly, or a vote takes place. On another hand, for other QUA committees, the selection process is more informal. Nonetheless, the QUA always ensures the participation of urologists from each university and community-based practitioners. There is no current equity, diversity and inclusion policy, neither a « Women's Committee » within the QUA. However, there is a true effort of inclusiveness in nominating committees. Also, it seems that the QUA's less strict nominating process may have facilitated female involvement. Indeed, it allowed women who are community-based and those who do not hold senior academic positions to be considered for leadership positions.

Even though we unfortunately do not have the data to support this statement, in comparison to the QUA, the CUA does seem to have a greater proportion of members in leadership positions who are more likely to have academic practices. To understand this trend, it is important to consider the fact that the QUA has a more localized and focused

mandate than the CUA, as the QUA is a smaller association that prioritizes the needs and perspectives of urologists working in Quebec. As a result, QUA leadership positions are more accessible and relevant to community-based urologists who are actively practicing in Quebec and have a vested interest in shaping the direction and policies of the association. Conversely, the CUA is a national organization that represents urologists from across Canada. Therefore, involvement in leadership positions may require a higher level of academic qualification. A study by Ilin et al (2019) showed that there continues to be fewer female urologists holding senior academic positions.²

Moreover, from 2012-2016, there was only one female invited speaker at the CUA annual conference. We witnessed a positive evolution over the years with a proportion of almost a quarter of female invited speakers at the 2022 CUA annual conference. However, the QUA has been more progressive with more than half of the invited speakers in 2022 being females. It is crucial to have diversity on panels to ensure that the participants can learn from a variety of perspectives and viewpoints. Unfortunately, all male panels (manels) are still common in urology. Teoh et al. (2021) showed that manels represented nearly 60% of meeting sessions and that male faculty members were most likely to have the opportunity to be a panelist compared to their female counterparts, even with comparable academic qualifications.⁴ As we mentioned previously, Teoh et al. (2021) also acknowledged that a way to promote gender diversity is to increase the number of female members in the organizing committees.⁴ It is also important to consider that invited speakers may decline invitations to speak at major congresses for reasons such as maternity leaves or due dates. These factors lead to gender disparity and need to be recognized and corrected. A first step would be for conferences program organisers to track declined invitations and their motives.

Regarding awards, there is the same trend at the QUA and the CUA, where women are likely to receive early career awards such as the QUA's *Resident prize* or the *CUASF development award*. However, female urologists have yet to be successful in obtaining awards reserved for late-stage career, such as the *lifetime achievement award*. Perhaps this reflects the fact that there are few practicing female urologists who are nearing the end of their career. In addition, for those who are later in their careers, they likely lacked female mentors or sponsors which, in itself, leads to inequity in ascending academic ranks and achievements. It cannot be disregarded that there are documented gender disparities in promotions and academic ranks within urology.² This also provides insight to how medical associations have benefited its males members career's in the past decades by providing them the needed opportunities for reaching prestigious senior awards.⁵

As Ioannadis (2012) states:

Each professional society and organization creates its cadre of leaders, with meetings making these leaders visible to the members who usually participate passively

by listening. Given the dynamics of large professional societies and conferences, leadership is sometimes judged not on scientific merit, hard work, and originality of thought but rather on the ability to navigate power circles.^{8 (p. 1257)}

Interestingly, our review of the composition of committees did reveal that very often the same urologists are at the head of leadership positions. It is important for medical associations to promote diversity across leadership positions to ensure inclusivity and representation of the membership. Having more females in leadership positions also allows for positive role models for early career female urologists.⁹

As Silver et al. (2017) comments:

If medical specialty societies are gatekeepers to critical resources that physicians need to develop and advance their careers, then it seems clear that a comprehensive and transparent examination of gender metrics, that triggers responsive and data-driven strategies focused on the equitable inclusion of women, is essential.^{5 (p. 812)}

This is part of the mandate in the hands of the CUA's Equity, diversity, and inclusion committee that was formed in 2020. In 2021, the CUA adopted an equity, diversity and inclusion policy¹⁰ which aims to « foster member involvement that reflects the growing number of urologists training and practicing in Canada »^{10 (p.3)}, without establishing a quota system. The committee started tracking gender metrics and implementing initiatives to promote diverse representation at the CUA. We hope that our study will help in bolstering the efforts of this committee, as it is crucial for diversity initiatives to continue and intensify.

Limitations

Our study has several limitations. Firstly, gender was seen as binary. This is by nature paradoxical since it doesn't reflect the spectrum of gender diversity. Moreover, we could only obtain the gender breakdown of membership for 2021 and 2022. We also only focused on gender as a diversity metric whereas diversity clearly doesn't limit itself to gender. Of note, the CUA has now begun collecting data on gender with members having the option to identify as male, female, non-binary, transgender or 'prefer not to answer'. This will hopefully help provide more inclusive data for future studies. Further research needs to focus on all aspects of diversity such as race, ethnicity, sexual orientation, physical ability, gender identity and age as examples.

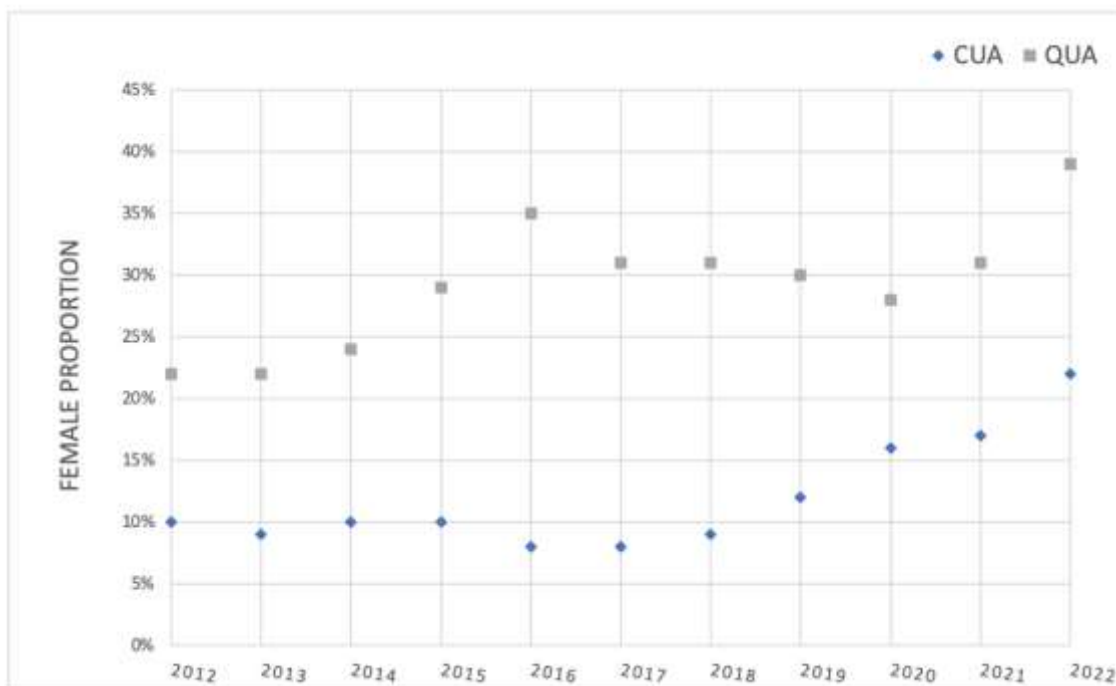
CONCLUSIONS

The past decade witnessed progress in gender diversity at both the CUA and the QUA. Nevertheless, our data reveals that overall female representation at the QUA has outpaced that of the CUA. Review of the trends of female representation is crucial for tracking progress in gender equity and we hope this will help support initiatives of the CUA's Equity, Diversity, and Inclusion Committee.

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FIGURES AND TABLES

Figure 1. Representation of women on committees at the Canadian Urological Association (CUA) and the Quebec Urological Association (QUA) from 2012–2022.**Table 1. Membership gender breakdown at the CUA and the QUA in 2021 and 2022**

		Gender proportion, % (nb/total)	
		CUA	QUA
2022	Females	18 (256/1431)	23 (52/228)
	Males	81 (1162/1431)	77 (176/228)
	Not identified	1 (13/1431)	n/a
2021	Females	16	22 (47/212)
	Males	84	78 (165/212)

CUA: Canadian Urological Association; QUA: Quebec Urological Association.

	Female proportion, % (nb females/total)		p
	CUA	QUA	
2017–2022	14 (177/1230)	32 (64/198)	<0.0001
2022	22 (50/225)	39 (15/38)	0.0226
2021	17 (35/207)	31 (11/35)	0.0429
2020	16 (33/209)	28 (7/25)	0.1254
2019	12 (27/218)	30 (10/33)	0.0068
2018	9 (17/193)	31 (10/32)	0.0003
2017	8 (15/178)	31 (11/35)	0.0001
2012–2016	9 (63/676)	26 (46/174)	<0.0001
2016	8 (13/164)	35 (12/34)	<0.0001
2015	10 (11/108)	29 (10/34)	0.0059
2014	10 (13/133)	24 (8/34)	0.0309
2013	9 (12/135)	22 (8/36)	0.0111
2012	10 (14/136)	22 (8/36)	0.0567

CUA: Canadian Urological Association; QUA: Quebec Urological Association.

CUA		QUA	
	Female proportion % (nb females/total)		Female proportion % (nb females/total)
Total	11 (5/46)	Total	38 (13/34)
Lifetime achievement award	0 (0/10)	Jean Charbonneau prize	0 (0/5)
Presidential citation	33 (1/3)	Resident prize	45 (13/29)
Award of merit	25 (1/4)		
Honorary membership	0 (0/10)		

Award of excellence in education	0 (0/1)	
CUASF Career Development Award	17 (3/18)	

CUA: Canadian Urological Association; QUA: Quebec Urological Association.

	Female proportion, % (nb females/total)		p
	CUA	QUA	
2017–2022	21 (14/66)	27 (25/91)	0.3702
2022	23 (3/13)	53 (9/17)	0.0980
2021	67 (6/9)	22 (4/18)	0.0242
2020	0% (0/8)		
2019	17 (2/12)	11 (2/18)	0.6610
2018	17 (2/12)	38 (6/16)	0.2272
2017	8 (1/12)	18 (4/22)	0.4384
2012–2016	2 (1/53)	16 (11/69)	0.0098
2016	10 (1/10)	15 (2/13)	0.7039
2015	0 (0/10)	9 (1/11)	0.3061
2014	0 (0/11)	20 (3/15)	0.1148
2013	0 (0/11)	23 (3/13)	0.1148
2012	0 (0/11)	12 (2/17)	0.2075

CUA: Canadian Urological Association; QUA: Quebec Urological Association.