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Women's Health Fellowships: Examining the Potential Benefits and Harms of Accreditation

Molly Carnes, MD, MS, 1-5 and Bennett Vogelman, MD²

Abstract

This commentary responds to the assertions by Foreman et al. that credentialing of women's health (WH) fellows by the American Board of Medical Subspecialties and accreditation of current and future WH fellowships by the Accreditation Council for Graduate Medical Education would improve the health and healthcare of women by increasing the number of primary care providers competent to meet a growing clinical need. They speculate that such accreditation would raise the status of WH fellowships, increase the number of applicants, and result in more academic leaders in WH. They assert that curricular deficiencies in WH exist in physician training and that WH fellowships are the preferred means of training physicians to care for midlife women. We review the evidence to support or refute these claims and conclude that accrediting WH fellowships would not have the forecasted outcomes and would jeopardize the success of current WH fellowships.

POREMAN AND COLLEAGUES¹ argue that the primary care needs of women, particularly midlife women, are not currently being met because this population is growing and because women's health (WH) providers require a unique set of clinical skills. They further speculate that these clinical skills can best be provided through fellowship training and that credentialing of fellows by the American Board of Medical Subspecialties (ABMS) and accreditation of current and future WH fellowships by the Accreditation Council of Graduate Medical Education (ACGME) would be an effective strategy to increase the number of primary care providers competent to meet a growing clinical need and improve the health and healthcare of women.

Due to the growing number of women entering the military, the Department of Veterans Affairs (VA) has invested in developing leaders to champion research, education, and clinical care aimed at improving the health of women.² In 1994, the VA established six Advanced Fellowships in Women's Health (AFWH) to develop academic leaders in WH. These fellowships supported physicians from internal medicine, obstetrics and gynecology (Ob/Gyn), psychiatry, family practice, or surgery for 2–3 years of post-residency training. In 1995, two additional sites were funded.² By 2010, 87 physicians had completed a VA AFWH.³ Recognizing the importance of WH leadership beyond medicine and congruent with its efforts to foster interprofessional training and practice,⁴ in 2012, the VA extended training at six recurring and two new sites to nonphysician postdoctoral fellows in

clinical fields such as nursing and psychology⁵ and developed a National AWHP Coordinating Center. An annual directory of women's health residency and fellowships lists nine 2-year WH fellowships in addition to the eight from VA AFWH, eight 1-year fellowships (two limited to psychiatry), and eight WH residencies.⁶

We sought evidence to support Foreman et al.'s assumptions of benefit as well as evidence for potential harms of pursuing WH fellowship accreditation by reviewing the descriptions of existing WH fellowships and residencies in the Directory of Residency and Fellowship Programs in Women's Health, ACGME requirements for 2-year fellowships, the evaluation of the VA AFWH programs, the case of ACGME accreditation of geriatric fellowships in 1988 leading to a Certificate of Added Qualification, the experience of general internal medicine (GIM) fellowships which remain unaccredited, physician trends away from primary care specialties, hysician trends away from primary care specialties, hysician boards of Internal Medicine (ABIM) fellowship matching data, and research on gender and status. Table 1 summarizes our assessment of the evidence supporting and opposing accrediting WH fellowships.

Assumption 1: Accrediting WH Fellowships Will Increase the Status of WH Training

Foreman et al. believe that accreditation would increase the status of WH fellowships. Although on the surface this

¹Center for Women's Health Research and Departments of ²Medicine, ³Psychiatry, and ⁴Industrial and Systems Engineering at the University of Wisconsin, Madison, Wisconsin.

⁵William S. Middleton Memorial Veterans Hospital, Madison, Wisconsin.

Potential harm Table 1. Potential Benefits and Harms of Accrediting Women's Health Fellowships: What is the Evidence?

Assumption of benefit	Supporting evidence	Opposing evidence	
If accredited, the status of WH training will increase.	• Recognition by a high status group can increase social capital and confer legitimate power. 50.51	 Women are overrepresented in physician specialties with the lowest compensation, one measure of status. WH "specialists" will be >95% women physicians; Ob/Gyn has expressed concern 	• The wel and stat which a field wir

- about the loss of specialty status as the percent women in the field increases. ^{28,52} Alpha Omega Alpha status than those who did not pursue fellowships. fellowships were more likely to have received General internal medicine fellowships remain unaccredited, yet faculty who had taken
- of clinical training added to geriatric fellowships The ACGME- and ABMS-required 12 months of lower status among academic leaders.36 upon accreditation led to perceptions
 - WH would be a primary care fellowship; the number of physicians choosing primary care fields has fallen.

As new clinical specialties

accredited by ACGME. historically become develop, they have

fellowships will increase

if they are accredited.

The number of physician

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applicants to WH

- 57% of accredited geriatric fellowships were filled. 13 Accreditation of geriatrics in 1988 did not increase In the past decade, the number of geriatric fellows has fallen by 35% while most other medical subspecialty fellowships have seen an increase in the number of U.S. medical school graduates entering geniatric fellowships. ¹³ Seven years after accreditation (and before reducing to 1 year) only
 - fill in 2014)* there is no guarantee that accreditation will solve this problem as many currently accredited fellowships do not fill.¹² Although the existing WH fellowships do not fill (e.g., 2 of 8 Veterans Administration sites did not the number of fellows.

- ell documented conflation of gender attract >95% women to create a atus could lead WH fellowships ith lower status and pay than specialties with a greater gender mix 20,24,28,53,54
- fellowships less attractive to top graduates. The loss of status will make WH •

from these disciplines.

		Table 1. (Continued)	
Assumption of benefit	Supporting evidence	Opposing evidence	Potential harm
Accredited fellowships will produce more academic leaders who will lead WH research, infuse WH issues into medical curricula, and serve as role models to attract future physicians.	Many academic leaders completed subspecialty fellowships.	 Percent academic leaders emanating from current WH fellowship is high relative to other fellowships, ¹⁸ with 79% reporting an academic appointment, 43% competing for an National Institutes of Health K-award, and 49% having held a major leadership position.³ General internal medicine fellowships remain unaccredited and successfully train academic leaders.⁸ Before accreditation, 60% of former geriatric fellows reported being active in research and 85% taught some geriatrics; ⁴⁰ following accreditation (but before reduction to 1 year), 32% reported being active in research and 75% taught.⁷⁷ Unaccredited fellowships allow fellows sufficient time for academic skill development and many complete advanced degrees during fellowship.^{3,8} ACGME and ABMS accreditation will require 12 months of clinical work, which will constrain the ability to individualize training and prepare fellows for academic careers. 	 Accreditation would eliminate the current flexibility in WH fellowships that allows training academic leaders. The curricular restrictions of accreditation could jeopardize the ability of WH fellowships to partner with medical subspecialty fellowships to develop academic leaders with WH knowledge, skills, and perspectives (e.g., women's endocrinology, women's cardiology, older WH). Accrediting WH fellowships as a physician subspecialty would reduce or eliminate the ability of WH fellowships to train future academic leaders in WH from other clinical disciplines, thereby reducing the number of future academic leaders in WH.
WH fellowships are the best way to develop a clinical workforce to provide the spectrum of primary care to women.	Subspecialty fellowships are the traditional way to provide comprehensive knowledge, skills, and experiences in a specific area of internal medicine or family practice.	ning in 1, 5,41 stailed 1 care, 43 ical 14% medical contain s	 If accreditation of WH fellowships excuses residencies from ensuring adequate training in WH, ACGME could be complicit in perpetuating the overuse of residents to provide inexpensive clinical service. Interprofessional practice may be the preferred model for providing healthcare to many women, 4.45.46 claiming ownership of WH fellowships by physicians could reduce the ability of current WH fellowships to foster interprofessional practice.

ABMS, American Board of Medical Subspecialties; ACGME, American College of Graduate Medical Education; Ob/Gyn, obstetrics and gynecology; WH, women's health. *AFWH National Coordinating Center, unpublished data.

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seems like a plausible argument, this was the same supposition proffered to support the accreditation of geriatrics fellowships. Therefore, the case of geriatric fellowship accreditation bears scrutiny. The experience of accreditation of geriatric fellowships is particularly germane to WH fellowships because both are essentially primary care fellowships, built around a segment of the adult population.

How do we assess the status of a fellowship? If a marker of status is the percent of fellowship positions that fill with United States medical school graduates (USMGs), the status of geriatrics fellowships did not increase following accreditation. Although the number of geriatric fellows increased following ACGME accreditation, the percentage of U.S. trained physicians entering these fellowships decreased from 68% in 1991 to 45% in 2001. The More than a decade after accreditation, a national study of geriatric medicine fellowship programs in 2002 concluded that "the recruitment of high-quality USMSGs remains a challenge for the discipline." In 2013, only 98 USMGs, 30% of available positions, were in geriatric fellowships—one of the lowest percentages among all residency and fellowship training programs.

Another marker of fellowship status could be the record of producing academic leaders. Tilstra et al. conducted an evaluation of the Veterans Health Administration AFWH by surveying program directors and physician graduates.³ The outcomes of this evaluation are relevant because the Veterans Health Administration fellowships account for almost half (8/ 17) of all 2-year WH fellowships and 1-year programs have insufficient time in which to develop the foundation for an academic career. ^{6,8,16,17} Tilstra et al. were able to contact 77 of the 87 AFWH graduates. Of the 42 respondents with evaluable data, 79% held an academic position, 39% were on the tenure track, 43% had been awarded a National Institutes of Health Career Development (K)-award, 30% had been awarded a National Institutes of Health Research Project (R01) or Exploratory/Developmental Research Grant (R21), and 49% had held a major academic leadership position. Compare this, for example, with pulmonary/critical care fellowships in which 38% of trainees remain in academic medicine with 20% involved in research. 18 The remarkable success of unaccredited WH fellowships makes it unlikely that accrediting them would increase their status by the metric of producing future academic leaders.

Gender is conflated with status in our society in both explicit and implicit ways. ^{19–21} Tilstra et al. found that 97% of WH fellows in their survey were women. The percentage of women physicians in medical specialties and subspecialties is strongly correlated with the prestige and remuneration of the specialty. 20,22 Pediatrics and Family Medicine draw a large percentage of women residents and are among the lowest paid specialties.²³ In countries where physicians are predominantly women, the status of the profession is low.²⁰ Even within the same specialty for the same work, studies repeatedly find that women earn lower salaries. 23-27 Ob/Gyn has seen a rapid change in the percentage of women entering the field and this change has generated open concern within the discipline about a loss in status of the specialty.²⁸ Some have speculated that the "feminization of medicine" due to the growing number of women physicians will lead to an overall loss of income and status for the entire medical profession.²⁹ Multiple studies confirm the following: (1) when women comprise at least 75% of an occupation, it is assumed to require traits that align with female gender stereotypes; ^{30,31} (2) work viewed as aligning with female gender stereotypes is devalued ³²; and (3) even when men and women are identically credentialed, women are offered lower salaries than men. ^{32–34} There is enough evidence for concern that accrediting a subspecialty made almost entirely of women physicians who provide primary care only to women would lead to relatively lower income and status.

Because in the status hierarchy of academic medicine physician-scientists are at the top followed sequentially by physician-educators and clinicians, another measure of a fellowship's status might be the degree to which training focuses on research. Only one of the 17 2-year fellowships (Case Western) does not list research training as a focus.⁶ Capitalizing on the ability of the fellowships to draw predominantly women, 35 some WH fellowships were designed to strategically provide a portal of entry for women physicians into academic medicine by providing mentorship, research training, and frequently an advanced degree. 3,5,6 Therefore, in spite of the implicitly lower status of a fellowship composed almost entirely of women trainees and devoted to the care of women, the focus on research training and academic leadership development has brought WH fellowships status within their respective academic institutions. ACGME accreditation and ABIM credentialing would likely require fellows to complete 12 months of clinical training, similar to all internal medicine 2-year fellowships. Returning to geriatrics as a relevant exemplar, in-depth interviews with leaders in GIM following ACGME accreditation of geriatric fellowships noted "the persistent belief that geriatrics is principally a clinical field rather than a distinct intellectual, scholarly discipline," and because of this clinical focus, the perception that "geriatric fellows are not of the same intellectual caliber as general internal medicine fellows."36 GIM fellowships remain unaccredited, attract top medical graduates, and produce academic leaders in the field.8 The ACGME- and ABMS-mandated 12-month clinical requirement that would come with accreditation would severely curtail the time WH fellows could devote to research and potentially lower the status of the current training programs, as it appears to have done for geriatrics.

Moreover, by examining evidence suggesting a loss in status following accreditation of geriatric fellowships, the large body of experimental and observational data on the lower status of occupations occupied predominantly by women, the continued high status of unaccredited GIM fellowships, and the success of unaccredited WH fellowships in training researchers and producing academic leaders; we conclude that accrediting WH fellowships would not elevate and could potentially lower their status.

Assumption 2: The Number of Physician Applicants to WH Fellowships Will Increase if They Are Accredited

Historically, new clinical fields in medicine have acquired ACGME accreditation. Because an increasing proportion of residents from internal medicine, pediatrics, and Ob/Gyn are drawn toward subspecialty fellowships, on the surface it might appear logical that accrediting WH fellowships would draw more applicants. ^{9–11} However, at least within internal medicine, several features of WH fellowships predict that

they would not hold the same appeal to residents as other subspecialty fellowships. WH fellowships would offer enhanced clinical skills in providing primary care to women, yet there has been a steady decline in the percentage of internal medicine residents planning to pursue primary care careers. It follows that residents would not choose additional training at a fellow salary to ultimately enter a primary care practice when they could acquire such training within their residencies and start a practice without a fellowship. This is especially true since one reason for the disfavoring of primary care careers by internal medicine residents is the relatively low salary.

A hallmark of ACGME accreditation is standardization of training. Although superficially this might seem beneficial, such rigidity would eliminate the major benefit of existing unaccredited WH fellowships (i.e., the ability to individualize training to meet the career goals of the fellow). Following a similar loss of flexibility with accreditation of geriatrics fellowships, the applicant pool decreased: 13 7 years after accreditation in 1988 (and before reducing to 1 year) only 57% of accredited geriatric fellowships were filled. 13 In the past decade, with a single year of training, the number of geriatric fellows has fallen by 35%, while most other medical subspecialty fellowships have seen an increase in number of fellows.³⁷ This retreat from training in accredited geriatric fellowships has occurred despite the growing workforce need driven by the increasing number of older adults in the United States.38

At the present time, WH fellowships can partner with internal medicine subspecialty fellowship programs to foster the career development of future academic leaders. This strategy increases the pool of potential applicants to WH fellowships, results in subspecialists who are knowledgeable in discipline-specific WH issues, and broadens the institutional impact of WH fellowships. The loss of flexibility with accreditation would remove the appealing features of a WH fellowship for subspecialists. Accrediting WH fellowships (either in internal medicine or jointly between internal medicine and family practice) would also eliminate applicants from disciplines currently eligible at many programs, including Ob/Gyn, psychiatry, pediatrics, emergency medicine, and surgery. In Tilstra et al.'s survey, most VA AFWH fellows were from internal medicine (74%), but 26% were from other specialties. Eight of the 42 (19%) AFWH fellows were from Ob/Gyn, and 12 of all 25 1- and 2-year WH fellowships list Ob/Gyn among eligible specialties. Most Ob/Gyn residents do not want to practice primary care, and post-residency Ob/Gyn fellowships are largely surgical. 11 Even if they remained eligible for WH fellowships after accreditation, Ob/Gyn residents attracted by the opportunity for research training in current WH fellowships would likely not be attracted to a fellowship with reduced research time and a required 12 months of clinical training at a salary far below their market value.

Foreman et al. state that with ACGME accreditation of WH fellowships "it is likely that a greater number of physician graduates would undergo specialized training." It is unclear where these potential physician graduates would come from. Nonprocedural fields are almost all struggling to match physician graduates. Accreditation does not guarantee that residents will apply to a subspecialty fellowship. Within internal medicine, procedural and highly remunerated spe-

cialties attract the largest number of applicants per position and over 95% of programs fill. ¹² In contrast, while they are accredited, many subspecialty fellowships have few applicants per position and the percentage of programs that did not fill in 2014 (e.g., endocrinology, 13%; rheumatology, 14%; infectious disease, 44%; nephrology, 44%; geriatrics, 74%) is similar to or greater than the 25% of VA AFWH fellowships that did not fill in the same year (AFWH National Coordinating Center, unpublished data). ¹² These results suggest that neither the lack of accreditation nor inefficient recruitment strategies are responsible for failure to fill available WH fellowship positions as Foreman et al. suggest.

In summary, we found no evidence that accreditation would increase the number of applicants to WH fellowships, as accreditation of geriatric fellowships—an analogous primary care fellowship—did not enhance recruitment of geriatric fellows and many currently accredited subspecialty fellowships do not fill. We did find considerable evidence to suggest that accreditation would decrease the number of applicants by eliminating residents from a number of specialties in the current pool of eligible applicants and by making the fellowship unattractive to those who want to pursue research.

Assumption 3: Accrediting WH Fellowships Will Produce More Academic Leaders in WH

We found no evidence to support the assumption that accrediting WH fellowships would produce more academic leaders in WH who will lead WH research, infuse WH issues into medical curricula, and serve as role models to attract future physicians. The percentage of academic leaders emanating from current WH fellowship is already high.³ A survey of primary care physician faculty found that those who took fellowships were more likely to be engaged in research and had achieved a higher rank than those without fellowships. Many of these faculty likely pursued GIM fellowships that remain unaccredited.⁸ In a survey of 109 GIM fellows, over 70% rated preparation for an academic career as important or very important in their fellowship (e.g., mentor, protected time for research or teaching, research support, and availability of an advanced degree), whereas only 28% similarly valued a written curriculum.³⁹ If we can assume that GIM fellowships, which are also in primary care and also unaccredited, are analogous to WH fellowships, the standardized clinical curriculum required for ACGME accreditation might discourage residents who want an academic career. Accreditation of geriatric fellowships reduced academic activity of graduates. Before accreditation 60% of former geriatric fellows reported being active in research and 85% taught some geriatrics;⁴⁰ following accreditation (but before reduction to 1 year) 32% reported being active in research and 75% taught.¹⁷

As noted above, a major strength of remaining unaccredited is the flexibility to tailor training to the career goals of each fellow. Constraining the ability to individualize training and shifting the focus to the acquisition of a prescribed set of clinical skills would likely make fellowships less appealing to future physician scientists and educators. For example, the ability of current fellowships to partner with medical subspecialties in training physicians who want an academic career allows infusion of sex and gender issues into subspecialty training. In this model, fellows enroll in the WH

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fellowship either before or after subspecialty training and emerge with enhanced academic skills and deeper content knowledge regarding sex and gender issues within their own discipline (e.g. older women's heath, WH infectious disease, WH endocrinology). Accrediting WH fellowships would jeopardize the ability to support this training model and thereby reduce the potential for WH fellowships to produce academic leaders.

A strength of current WH fellowships is that they are interand multidisciplinary and support training not only of physicians from a variety of specialties, but also of other clinical postdoctoral fellows. ^{5,6} Accreditation within one or more physician specialty would almost certainly reduce or eliminate the ability of current programs to support applicants from these disciplines. Although there is precedent for accreditation across medical specialties, accreditation across disciplines is not feasible. Therefore, ACGME accreditation of WH fellowships would reduce training of academic leaders in WH beyond medicine resulting in an overall loss of those who could implement improvements in the health and healthcare of women.

In summary, we found no evidence to support the assumption that accrediting WH fellowships would increase the number of academic leaders in WH. We found a fair amount of evidence that accrediting WH fellowships could reduce their current success in training academic leaders. This reduction would occur because the restrictions placed by accreditation on fellowship training would make the current WH fellowships less appealing to top applicants with academic career aspirations and make applicants from an important multidisciplinary pool of future academic leaders ineligible.

Assumption 4: WH Fellowships Are the Best Way to Develop a Clinical Workforce to Provide the Spectrum of Primary Care to Women

Effective nonfellowship models of enhancing training in clinical aspects of adult care of women have been successfully incorporated into internal medicine residencies. 41 WH tracks are available within both primary care and categorical internal medicine residency programs.⁶ One program documented enhanced knowledge and confidence in primary care WH in residents enrolled in the WH track. 6 This model is congruent with recommendations from leaders in GIM who recommend tailoring the final 1-2 years of residency toward anticipated practice and career goals. 42 For any physician planning to enter primary care, and particularly for women because female patients self-select women providers, such tailoring could include enhanced training in WH within the current residency program. Family medicine competencies already include detailed knowledge and skills in WH and sex/ gender specific health care.43

Another model to consider is the Focused Practice certification currently available to hospitalists. Hospital medicine is a relatively new practice specialty; physicians within this specialty can qualify for certification by the American Boards of Internal Medicine (ABIM) and Family Practice (ABFP) in Focused Practice in Hospital Medicine (FPHM). ABIM states that FPHM "recognizes and sets standards for the specific knowledge, skills, and attitudes of general internists who focus their practice in the care of hospitalized patients." If primary care physicians feel it is desirable to let their patients

know that they have achieved a set of competencies in caring for women, certification in Focused Practice in Women's Health would be an option that would allow physicians to accrue eligibility for certification while they practice rather than prolonging their training by serving 2 years at relatively low salary. We must also ask ourselves whether current internal medicine residencies are failing their trainees if residents complete 3 years of training and still require at least 12 months of enhanced training in WH to gain clinical competency to provide care for 51% of the population. If ACGME moves toward accreditation of WH fellowships, therefore, would it not be complicit in perpetuating the overuse of residents to provide inexpensive clinical service and placing institutional needs above the learning needs of residents?

The World Health Organization, ⁴ Institute of Medicine, ⁴⁴ the Veterans Health Administration, and others ^{45,47} are promoting the benefits of interprofessional training and practice. WH fellowships currently foster interprofessional collaboration in research, education, and clinical care. A concern about claiming ownership of WH fellowships by physicians would be the loss of what is currently a strength. ⁴

In summary, while curricular content of WH varies among medical schools and internal medicine residencies, ^{47–49} effective training models that increase clinical competencies in primary care WH exist and do not require a fellowship beyond residency. Rather than increasing the number of clinicians competent to provide health care to women, accrediting WH fellowships as a physician specialty in primary care would eliminate applicants from Ob/Gyn and nonphysician clinical disciplines, reduce the ability of unaccredited fellowships to foster interprofessional training and practice, and potentially siphon resources away from WH training within existing residencies.

Conclusions

We have examined evidence to support or oppose Foreman et al.'s assumptions that accrediting WH fellowships would benefit the health of women. We conclude that the extant evidence does not support a benefit of accreditation and identifies a number of potential harms. These harms include the potential for lower status for a specialty where nearly all providers will be women, inflexibility to meet individual fellows' training needs given ACGME's and ABMS's 12-month clinical requirement, the inability to continue the success in training academic leaders in multiple medical specialties/subspecialties, and the exclusion of nonphysician fellows once programs are accredited for physician training. We further find evidence to support effective nonfellowship models to enhance physicians' clinical skills in providing primary care to women. We disagree with Foreman et al's. statement that investing time and resources to accredit WH fellowships that will train perhaps 100 physicians annually will "better serve the greater than 50 million patients." On the contrary, to meet the health care needs of women patients across the lifespan, improving WH competencies in the clinical training of the > 13,000 physicians who annually complete residencies in internal medicine, Ob/Gyn, family medicine, and pediatrics would have a far greater positive impact.

Author Disclosure Statement

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Address correspondence to:

Molly Carnes, MD, MS
Center for Women's Health Research
University of Wisconsin
700 Regent Street
Suite 301
Madison, WI 53715

E-mail: mlcarnes@wisc.edu