

Innovating Within the ACGME Regulatory Environment Is Not an Oxymoron

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Innovating Within the ACGME Regulatory Environment Is Not an Oxymoron

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BACKGROUND AND OBJECTIVES: The aim of this study was to describe the analysis of program citations and cycle length for re-accreditation in the 14 family medicine residencies participating in the P4 project.

METHODS: An exploratory narrative analysis was conducted on all actions taken by the Review Committee for Family Medicine (RC-FM) between 2003 and 2012. The analysis included cycle length and types of citations associated with accreditation actions. Several validation steps were undertaken to confirm findings reported.

RESULTS: Mean cycle length for all P4 programs was 4.0 before P4 (2007) and did not change significantly during P4. The average number of citations per program before P4 was 6.2, and during P4 the average was 6.8. The P4 averages were similar to national norms during the project period. The citations that most commonly decreased during the P4 project were: Continuity of Patient Care/Inpatient, FMC Patient Population/Patient Volume, Orthopedics or Sports Medicine Curriculum, Resident Final Evaluation, Resident Workload/Duty Hours, and Resident Attrition. The citations that most commonly increased during the P4 project were FMC Patient Population/Demographics, Certifying Exam Scores, and Management of Health Systems Curriculum.

CONCLUSIONS: Innovation and redesign of residency training in the P4 programs appears not to have affected the average cycle length or number of citations per program. The current regulatory environment in family medicine residency education appears to allow for innovation and experimentation.

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is the regulatory body responsible for monitoring and evaluating family medicine training programs in accordance with established accreditation requirements.² The current RC-FM program requirements have been in effect since July 2007 but are about to change as the Next Accreditation System (NAS) rolls out to accelerate the ACGME's movement toward accreditation based on educational outcomes.³ Despite the vision of the NAS to focus more on the success of programs and less on problem identification, it is unclear whether innovation in residency design can survive and even thrive in the current regulatory environment.

The Preparing the Personal Physician for Practice (P4) Project was organized to stimulate experimentation in the training of family physicians and has informed innovation in residency education in family medicine and primary care.⁴ It aligns well with the intention of the original ACGME essentials of training to tailor the educational program to meet the needs of future practice.⁵ The

In the 1966 Willard Report, the authors outlined the optimal educational environment for the new specialty of family practice. Their recommendations included that "standards for family practice training must allow substantial freedom and flexibility in their content

and organization."¹ Regulation of any specialty necessarily requires some restrictions while allowing for freedom and flexibility. The Review Committee for Family Medicine (RC-FM), under the auspices of the Accreditation Council for Graduate Medical Education (ACGME),

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P4 programs created experiments that had the potential of pushing the boundaries of the family medicine accreditation requirements and, as this project progressed, how the RC-FM would balance the RC's regulatory function with flexibility as they reviewed the P4 programs was uncertain.

As part of the application process for P4, the program's cycle length and citations were considered by the selection committee to avoid having any selected programs drop out because of accreditation issues. In addition, the American Board of Family Medicine (ABFM) provided assurance to P4 programs that their graduates would be eligible to take the certifying examination regardless of the program's status with the ACGME. Despite being in "good standing" at the outset, P4 programs still feared their experimentation would adversely affect their standing with the RC-FM, leading to more citations or a decrease in their accreditation cycle length.

In this paper, we aim to answer the following research questions: What is the relationship between the number of citations and cycle length in the P4 programs relative to national averages, and what changes in citations and cycle length did each P4 program experience before and during P4? We report the results of accreditation review in the 14 family medicine residencies associated with the P4 project from RC-FM site visits conducted prior to and during the P4 project and compare those to national averages.

Methods

Setting and Participants

The P4 project is a 7-year (2007–2014) national demonstration initiative of a spectrum of residency training innovations associated with the patient-centered medical home (PCMH).⁶ The innovations were implemented between 2007 and 2012, and the project is now in a follow-up period where graduates of the program are being surveyed about their scope of practice, practice characteristics, adequacy of training, and

presence of PCMH features in their practice. All family medicine residencies were invited to apply to P4. The final programs were selected from an applicant pool of 40 residencies that had been invited to submit full proposals from the original group of 84 applications. A copy of the program's most recent accreditation letter from the ACGME was required in the application. The 14 participating programs conducted experiments that include changes in the length, structure, content, and/or location of training. Details of the P4 project and characteristics of the selected programs, including type, size, and their specific innovations, are described elsewhere.⁷

Each P4 site and the central evaluation team at Oregon Health & Sciences University (OHSU) received an Institutional Review Board (IRB) review and were granted exemptions, waivers, or approvals by their sponsoring institutions.

Data Source

RC-FM Reviews. The 2003–2004 to 2011–2012 academic time period was selected for analysis because it encompassed at least two RC-FM reviews for each P4 program: one before the start of P4 and one during it. Copies of all accreditation letters to program directors were provided to one of the authors (MPE) for detailed analysis. A narrative analysis was conducted with each letter to identify the cycle length for reaccreditation and program citations.⁸ The letters were each reviewed three times to verify the data. The P4 programs did not receive any type of blanket waiver from the RC-FM for their innovations, and their programs were reviewed in accordance with how all other residencies are reviewed. If programs submitted a Proposal for Program Experimentation and Innovation Project, a copy of the RC-FM action on the proposal was also collected and analyzed for approval or denial. Five programs submitted a Proposal for Program Experimentation and Innovation Project to the RC-FM during the P4 Project. One was approved, one was deemed

unnecessary since the program was fully in compliance, and three were denied. The reasons for the denials include: (1) failure to obtain RC-FM approval for major program changes prior to implementation, (2) failure to demonstrate how the experimentation was to be logistically attained within the program's current curriculum structure, and (3) the program did not meet the minimum required cycle length of 4 years for submission of an innovation and experimentation proposal.

National averages for the cycle length for reaccreditation were obtained from the ACGME website, and national averages for program citations were obtained from ACGME staff notes from the minutes of RC-FM meetings. Common areas of program citations nationally were obtained from the annual RC-FM updates at the Program Director's Workshops.

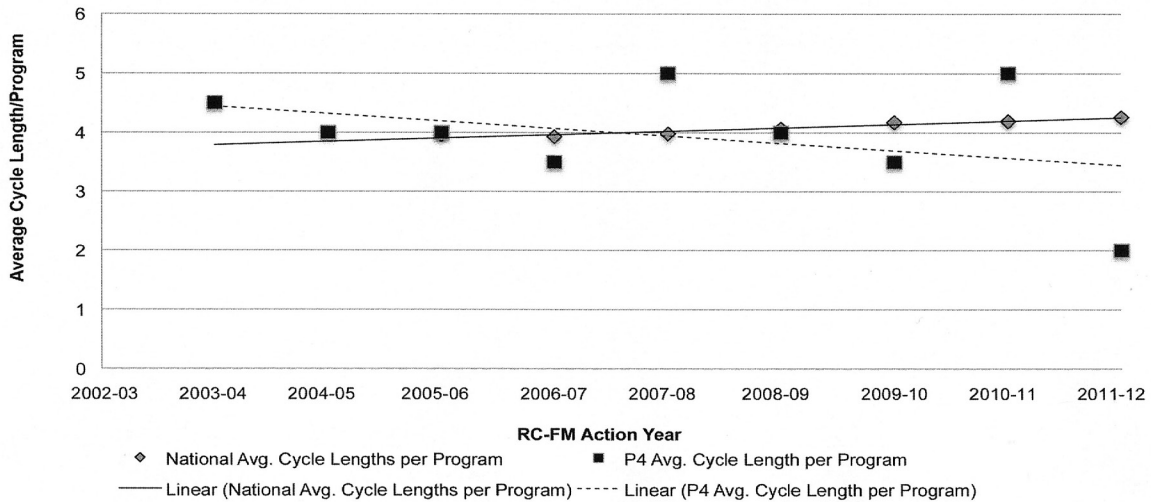
Data Analysis

In this exploratory analysis, descriptive statistics were used to characterize both the cycle length and number of citations that occurred over time. Paired *t* tests were used to assess average differences in citations and cycle length before and during P4. All tests were two tailed, and the alpha level was set at 0.05 to determine statistical significance.

Results

Six P4 programs increased their cycle length, two stayed the same, and six programs decreased their cycle length, including one program placed on probation (Figure 1). The per program average for cycle length in the before P4 period compared to during P4 was not significant (mean 4.0 versus 3.8, $P=.67$). During the same time period, the national average per program cycle length ranged between 3.93 and 4.26 (data not available for 2003–2004 and 2004–2005 years). Nationally average cycle length increased slightly while it decreased slightly in P4 programs, though this was not significant.

Figure 1: Average Per Program RRC Cycle Lengths in P4 Programs and Nationally 2003–2011



	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Total No. of Core FM programs reviewed*	175	123	129	139	157	120	129	109	118
No. of P ⁴ Programs reviewed and program cycle detail	4 Prog A=4 Prog B=4 Prog C=5 Prog D=5	3 Prog E=3 Prog F=4 Prog G=5	3 Prog H=3 Prog I=5 Prog J=4	4 Prog K=5 Prog L=4 Prog M=3 Prog N=2	2 Prog A=5 Prog B=5	5 Prog C=3 Prog H=4 Prog N=5 Prog E=5 Prog F=3	4 Prog D=2 Prog M=4 Prog G=4 Prog J=4	1 Prog I=5	2 Prog L=2 Prog K=2

RRC—Residency Review Committee
 P4—Preparing the Personal Physician for Practice

The number of citations received during P4 increased in five programs, decreased in eight programs, and did not change in one (Figure 2). The number of citations per program before P4 was 6.2 and during P4 was 6.8 ($P=0.73$). During the study period, the national average of per program citations ranged from 4.26 to 7.45. Though not significant, the trend in national per program citations dropped between 2003 and 2012 while the P4 trend was increased.

The most frequent citations occurring in P4 programs, either before or during the project, are outlined in Table 1. The citations that most commonly decreased in the P4 programs during the project were Continuity of Patient Care/Inpatient, FMC Patient Population/Patient Volume, Orthopedics or Sports Medicine Curriculum, Resident Final Evaluation, Resident Workload/Duty Hours and Resident Attrition. Citations that most

commonly increased in the P4 programs during the project were FMC Patient Population/Demographics, Certifying Exam Scores, and Management of Health Systems Curriculum. In the summary of RC-FM reviews nationally in the 2009–2010, 2010–2011, and 2011–2012 years, citations for FMC Patient Population/Demographics and Certifying Exam Scores were among the most common citations for all FM programs.⁹

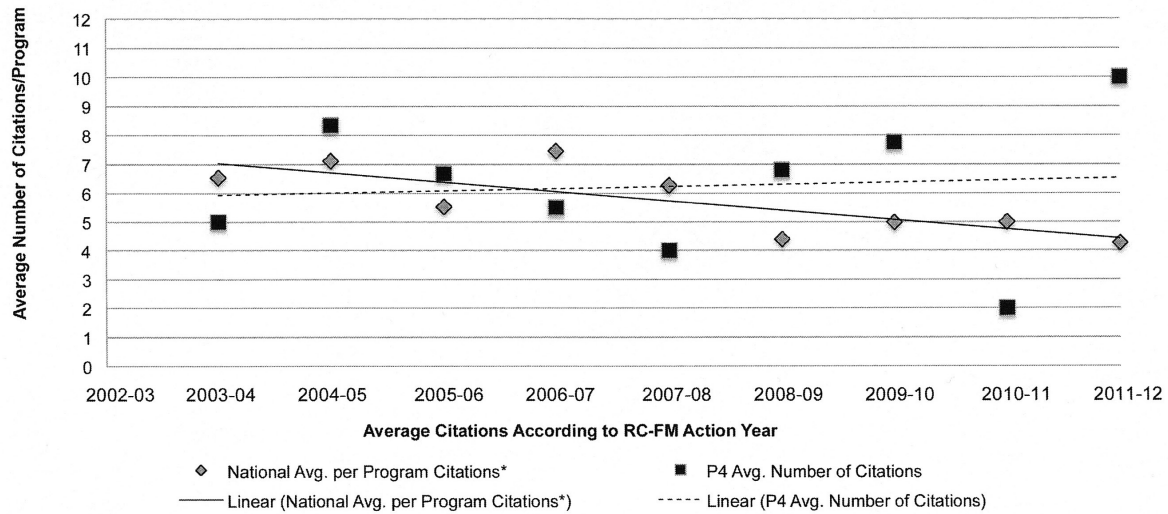
Discussion

The results of this exploratory analysis suggest that when considering the P4 programs as a group, innovation and redesign of residency training did not adversely affect the average cycle length or number of citations per program, and the P4 averages were similar to national norms during the project period. When comparing individual programs' citation and cycle length histories, other results are exposed, ie,

six programs received shorter cycle lengths (three dramatically shorter), and eight programs actually reduced their number of citations.

Major curricular changes can be destabilizing to a residency program so it is not surprising that several programs experienced difficulties with regulatory compliance resulting in shorter cycle lengths while engaged in their redesign work. In fact, the P4 programs expected to be more out of compliance with the ACGME during the project and considered it an acceptable risk of innovation. Though some P4 programs found navigating regulatory waters a challenge, programs were still able to innovate within the rules, and a majority of programs actually had fewer citations during the project. Perhaps faculty in the P4 programs believed they would be under greater scrutiny as a result of their participation in the project, which resulted in extra attention to complying with RC-FM

Figure 2: Average Per Program RRC Citations in P4 Programs and Nationally 2003–2011



	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Total No. of Core FM programs reviewed*	175	123	129	139	157	120	129	109	118
No. of P ⁴ Programs reviewed and program citation detail	4 Prog A=7 Prog B=7 Prog C=7 Prog D=7	3 Prog E=11 Prog F=10 Prog G=4	3 Prog H=12 Prog I=2 Prog J=6	4 Prog K=2 Prog L=12 Prog M=8 Prog N=0	2 Prog A=5 Prog B=3	5 Prog C=13 Prog H=9 Prog N=3 Prog E=3 Prog F=6	4 Prog D=18 Prog M=6 Prog G=2 Prog J=5	1 Prog I=2	2 Prog L=14 Prog K=6

RRC—Residency Review Committee
P4—Preparing the Personal Physician for Practice

Table 1: Most Frequent Citations* in P4 Programs Before and During the Project**

Program Citations	Before P4 Total	During P4 Total
Citations That Decreased		
Continuity of Patient Care/Inpatient	7	4
FMC Patient Population/Patient Volume	7	4
Orthopedics or Sports Medicine	5	1
Resident Attrition	5	2
Maternity Care/Total Deliveries	4	2
Evaluation of Resident/Final Evaluation	4	0
Resident Workload/Duty Hours	3	0
Faculty Development	3	1
Gynecologic Care	3	1
Citations That Increased		
FMC Patient Population/Demographics	3	7
Certifying Exam Scores	2	5
Practice Management/Management of Health Systems Curriculum	2	5
Sponsoring Institution/Internal Review	1	3
Total Program Citations	Before P4 Total 87	During P4 Total 95

P4—Preparing the Personal Physician for Practice
* Most frequent= citations that occurred in at least 3/14 P4 programs either before or during the project.
** n=14

regulations. It is also possible that the process of redesigning residency training toward the future led to a ripple effect of improvement in the residency program that brought previously problematic areas into compliance.

Although the average number of citations per program did not change significantly, some notable changes in the types of citations P4 programs received deserve mention. Fewer programs were cited for problems with continuity of patient care in the inpatient setting, patient volume in the FMC, resident duty hours, and resident attrition, which are all signs of improvement in the training environment. More programs were cited for problems with patient demographics in the FMC, pass rates on the board certification examination and their Management of Health Systems curriculum. Citations for patient demographics and board exam performance have been common citation areas in all reviewed programs nationally in the past few years, which may account for the change in P4 programs.⁹ It is unclear why P4 programs were cited more often for their Management of Health Systems curriculum, which should have been a strength in programs redesigning toward a medical home. Further study is needed to determine if these citation areas become more prevalent, leading to potential unintended consequences of residency innovation.

In his iconic work, *The Innovator's Dilemma*, Clayton Christenson, a Harvard Business School professor, describes the theory of disruptive innovations, which has changed the way we view innovation.¹⁰ When suggesting solutions to our current health care crisis, he offers that, "Instead of working to preserve the existing system, regulators need to frame their jobs differently. They need to ask how they can enable disruptive innovations to emerge."¹¹ As the regulators of graduate medical education, the ACGME has recognized the need for increased flexibility to allow for more innovation.

The new family medicine program requirements, currently in review following the public commentary period, are slated to go into effect July 2014 and incorporate changes that support innovation such as fewer time-based metrics, increased flexibility, and an expanded definition of continuity.¹² The NAS will base accreditation in part on the educational outcomes of programs informed by ongoing data collection and trend analysis. The new program requirements explicitly state which requirements are core, outcome, or detail. Under this system, programs that demonstrate high-quality outcomes will gain the flexibility to innovate in the detailed areas without requesting formal approval of the RC-FM. With the shift to more continuous exchange between the ACGME and residencies, high-performing programs inspired to innovate and produce new and better training models will hopefully feel supported instead of fearful of making bold changes.

Important limitations exist in this work. One is that this analysis was exploratory and was not powered to specifically study the impact of cycle length and citations in programs that were innovating, though this study does provide important effect sizes that would be used for a larger study. In addition, the P4 selection process resulted in participating programs being in good standing with the RC-FM, which may have added bias to our findings. Since programs were in a state of continual evolution of their innovations over the course of the 5-year project, and the results of an RC-FM site visit are a comprehensive view of the entire program at a particular point in time, we were not able to directly correlate specific citations to specific innovations. Also, other factors contribute to change in cycle length and citations for programs so not all changes can be attributed to innovation and redesign efforts. For example, in 2010, the RC-FM began reducing the cycle length in programs based on standard thresholds for pass rates on the boards and performance on

the certification exam for all examinees has been decreasing in the past few years.^{13,14} Though not specifically presented in the results, we know that two of the three P4 programs that had substantial decreases in their cycle length were also cited for poor board performance. Another limitation of this work is the unknown effect of the RC-FM denial of the Proposal for Program Experimentation and Innovation Project in three of the P4 programs, which may have altered their number of citations in subsequent site visits. Lastly, the 14 P4 programs were engaged in a wide variety of curricular changes and are not necessarily representative of family medicine residencies that are innovating and redesigning programs. However, the P4 programs do represent a diversity of program types (university based and community based), sizes, settings (urban and rural), and geographic regions.

Since the start of the P4 project, many other family medicine residencies are innovatively redesigning their training to better prepare their graduates for the future. The work of the P4 programs, a contemporary manifestation of the original ACGME program requirements that called for flexibility and training tailored to future practice,⁵ can inform regulatory changes with the potential to enhance the training environment in family medicine. Residency accreditation guidelines should evolve using guidance from relevant evidence and experience. Our findings suggest that innovating within the current ACGME environment is indeed not an oxymoron, and programs that are pushing the envelope can still work within the system to achieve their goal of producing a more highly skilled family physician.

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