

Primary Care Physicians' Perceptions of Barriers To Preventive Reproductive Health Care In Rural Communities

By Cynthia H. Chuang, Sandra W. Hwang, Jennifer S. McCall-Hosenfeld, Lara Rosenwasser, Marianne M. Hillemeier and Carol S. Weisman

Cynthia H. Chuang is associate professor of medicine and public health sciences, and associate director for research, Division of General Internal Medicine; Jennifer S. McCall-Hosenfeld is assistant professor of medicine and public health sciences; Lara Rosenwasser is a student; Carol S. Weisman is distinguished professor of public health sciences and obstetrics and gynecology—all at Penn State College of Medicine, Hershey, PA. Sandra W. Hwang is an undergraduate student at Cornell University, Ithaca, NY. Marianne M. Hillemeier is associate professor of health policy and administration, and associate director, Population Research Institute, Penn State University, College Park, PA.

CONTEXT: Women residing in rural areas are less likely than urban women to receive preventive reproductive health care, but reasons for this disparity remain largely unexplored.

METHODS: In 2010, semistructured interviews were conducted with 19 rural primary care physicians in central Pennsylvania regarding their experiences in two domains of preventive reproductive health—contraceptive care and preconception care. Major themes were identified using a modified grounded theory approach.

RESULTS: Physicians perceived that they had a greater role in providing contraceptive care than did nonrural physicians and that contraceptives were widely accessible to patients in their communities; however, the scope of contraceptive services they provided varied widely. Participants were aware of the importance of optimal health prior to pregnancy, but most did not routinely initiate preconception counseling. Physicians perceived rural community norms of unintended pregnancies, large families, and indifference toward career and educational goals for young women as the biggest barriers to both contraceptive and preconception care, as these attitudes resulted in a lack of patient interest in family planning. Lack of time and resources were identified as additional barriers to providing preconception care.

CONCLUSIONS: Rural women's low use of contraceptive and preconception care services may reflect that preventive reproductive health care is not a priority in rural communities, rather than that it is inaccessible. Efforts to motivate rural women to engage in reproductive life planning, including more proactive counseling by providers, merit examination as ways to improve use of services.

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Women in rural areas are less likely than urban women to receive contraceptive services^{1,2} and Pap smears.^{3,4} While this disparity is often attributed to less availability of obstetrician-gynecologists in rural than in urban communities,⁵ obstetrician-gynecologists are not the exclusive providers of preventive reproductive health care; primary care physicians provide these services in areas with a shortage of specialists. Challenges to providing reproductive services in rural areas include relatively high rates of poverty,^{6,7} difficulties related to the long distances that many women have to travel to access services,⁸ lack of privacy in small communities with few providers,^{9,10} and community attitudes such as conservatism and stigma associated with sexuality.¹¹ Primary care providers in rural communities may share community attitudes that serve as barriers to reproductive health care, or may be overloaded because of their expanded roles owing to a lack of specialist providers. On the other hand, given scarce health-related resources, they may view their role as important for promoting preventive reproductive health care. In this study, we explore rural primary care providers' practices regarding preventive reproductive health services and their perceptions of unmet needs for such services in their communities, the barriers to providing them and ways to improve their delivery. Our goal is to

identify strategies for improving preventive reproductive health care for rural women.

We focus on two types of services for women of reproductive age: contraceptive care and preconception care. The need for contraceptive services to prevent unintended pregnancy is well established. In 2008, an estimated 36 million U.S. women were in need of family planning services because they were sexually active, able to get pregnant and not trying to get pregnant.¹² More than 99% of U.S. women aged 15–44 who have ever had heterosexual intercourse have used at least one contraceptive method.¹³ Presumably, then, rural primary care providers may frequently be called upon to offer contraceptive counseling and services. However, in our previous work, women in rural central Pennsylvania were significantly less likely than their urban counterparts to report having received birth control information or counseling in the past year.²

Similarly, to reduce the risks for adverse pregnancy outcomes, most women of reproductive age arguably need preconception care, including screening for health conditions that can adversely affect a pregnancy, counseling on relevant health behaviors and assistance with pregnancy planning or spacing (including contraceptive services).¹⁴ Nationally, only about half of obstetrician-gynecologists provide preconception care to sexually active women,¹⁵ and

rural women are at increased risk of receiving inadequate prenatal care, having a low-birth-weight infant and experiencing neonatal mortality.¹⁶ Because of a shortage of obstetrician-gynecologists in rural areas,⁵ rural primary care providers may assume a greater role in preconception care than their urban counterparts, although providing preconception care could be challenging for those who have not focused on maternal and child health outcomes or been trained in pregnancy-related care. On the other hand, the majority of rural primary care providers are family practitioners and received obstetric training during their residencies,¹⁷ which could make them comfortable delivering preconception and other pregnancy-related care.

METHODS

Setting and Recruitment

As part of the Rural Women's Health Care Project, in 2010, we recruited a purposive sample of primary care physicians practicing in central Pennsylvania to participate in semistructured interviews about primary care delivery for adult women in rural areas. This study was approved by the institutional review board at the Penn State College of Medicine.

Rural central Pennsylvania consists of a range of communities from midsize and small towns to isolated rural areas. Ninety-two percent of the state's rural residents are white.¹⁸ In 2006–2010, some 19% of rural Pennsylvanians aged 25 and older had at least a bachelor's degree, compared with 29% of their urban counterparts; per capita income was \$10,483 less in rural counties than in urban counties in 2009.¹⁸ Thirty-four percent of women of reproductive age in the most isolated rural areas of central Pennsylvania are poor, compared with 27% of those in urban areas.² Fifty-two of Pennsylvania's 237 federally funded family planning clinics are in our target 28-county region, but four counties in our target region have no family planning clinic at all.¹⁹ In 2008, there was one primary care provider for every 1,501 rural residents, compared with one for every 981 urban residents in Pennsylvania.¹⁸

Using the American Medical Association's Physician Masterfile, we identified physicians who were actively practicing in the target region and who had a primary specialty in family practice, general practice, internal medicine, or obstetrics and gynecology. We included obstetrician-gynecologists with no subspecialty who identified themselves as primary care providers, because in many locations, women of reproductive age obtain primary care from their obstetrician-gynecologist;²⁰ physicians in Veterans Affairs practices were excluded.

Our sample was limited to practices located in rural zip codes or in zip codes immediately adjacent to rural ones (on the assumption that women in most rural areas travel to adjacent areas for their health care). We based our definition of rural zip codes on the Rural Urban Commuting Area (RUCA) codes, census tract–based classifications that take into account measures of population density, urbanization and patterns of daily commuting

flow.²¹ RUCA codes range from 1 (the most metropolitan or urban zip codes) to 10 (the most rural ones). We considered RUCA codes 7–10 to be rural zip codes and 4–6 to be adjacent ones. Using these definitions, 85 physicians from rural zip codes and 165 physicians from zip codes adjacent to rural ones met the inclusion criteria.

The 250 eligible providers were notified by letter that the Rural Women's Health Care Project would be conducted in their areas, and were invited to contact us by phone or e-mail if interested in participating. The majority were trained in either family practice (60%) or internal medicine (27%). In response to this letter, 12 physicians contacted us to volunteer to be interviewed and were enrolled in the study. We then telephoned eligible physicians who had not responded to the initial mailing, giving priority to those in the rural zip codes. We did not call all physicians who had not responded to the mailing, as we reached thematic saturation at the completion of 19 interviews. No physicians outright refused to participate.

Interviews

Two members of the research team conducted the interviews in person at the physician's office or by telephone, whichever the participant preferred and could be scheduled. The two interviewers attended each other's first few interviews to confirm that they both used the same approach; a third member of the research team was present at each interview to take notes. All interviews were audio-recorded and professionally transcribed.

All interviews began with ascertainment of the physician's number of years in practice, practice setting and reasons for practicing in a rural location. The physicians were then asked questions covering four main topic areas—cancer screening, preventive reproductive health, intimate partner violence and mental health—and were asked to focus their responses on their experiences providing primary care for adult rural women. In this article, we present data from the preventive reproductive health section, which addressed contraceptive and preconception care.

The contraceptive care questions examined physicians' relevant practices, their perceptions of women's access to contraceptive care in the community generally and their views of patients' attitudes toward reproductive planning. The preconception care questions explored physicians' relevant practices overall and for high-risk women, and their perceptions of barriers to care. We did not want to assume that physicians were familiar with the term "preconception care," so we phrased the questions in terms of providers' role in "helping women plan or prepare for future pregnancies," with an emphasis on topics other than contraception. To test physicians' comfort with and knowledge about preconception counseling for high-risk women, we asked whether they counseled women with diabetes about the associated increased risk of congenital malformations, as recommended by the American Diabetes Association.²² Concordant with accepted practice in qualitative research, the interview instrument was

modified as necessary throughout the study to allow us to further investigate emergent themes.

Analysis

We calculated frequencies for demographic characteristics of the primary care providers. For the qualitative analysis, two members of the research team independently analyzed each transcript using a modified grounded theory approach to identify themes related to the topics discussed. Grounded theory is a systematic approach to qualitative analysis emphasizing the formation of concepts and theories that are grounded in empirical observations in the data. The team then jointly decided on the major themes, for which there was full agreement. We present representative quotes from the participants to illustrate the themes. The NVivo8 software package for qualitative data was used to group the responses into appropriate theme categories.

RESULTS

Of the 19 participants, 12 were trained in family practice, five in internal medicine, one in general practice and one in obstetrics and gynecology. The sample comprised 10 men and nine women. Ten interviews were conducted in-person in the participant's office, and nine by telephone. Practices ranged from solo private practices to hospital-owned multispecialty groups and were located in 15 of the 28 counties in the target region; eight were in rural zip codes, and 11 in areas adjacent to rural zip codes. All of the physicians spent at least 50% of the work week providing adult primary care; most spent at least 80% of their time in such practice. The median number of years in practice was 21 (range, 1–38). Most participants had been in the same practice for their entire career, and only two had worked in urban locations. The predominant reason physicians gave for practicing in a rural area, cited by 11 participants, was that they had grown up in a rural area, often the one where they currently practiced. Other reasons were that physicians were fulfilling a visa requirement or a commitment to the National Health Service Corps or a loan repayment program.

The themes that emerged in the qualitative data did not appear to differ by physicians' gender or specialty. Furthermore, the telephone and in-person interviews yielded the same amount of data, and the same themes were identified in both, so we concluded that the data quality was the same for both types of interview.

Physician Practices

•*The role of rural vs. urban primary care physicians.* Overall, participants perceived that their patients were more likely to seek contraceptive care from primary care providers than were patients in urban settings. For example, a female internist, who had previously worked in an urban area, stated:

“They usually see the primary care provider [for contraceptive services]. ... I was not used to that. I was used to any contraceptive issues always went to the gynecologist.”

Participants believed they were more frequently called on for contraceptive needs than their urban counterparts were because of a lack of gynecologists in the rural areas. However, the amount of contraceptive care they provided varied widely. One physician provided no contraceptive services because of lack of comfort and interest; others were willing to provide oral contraceptive prescriptions to women already using the method, but were not comfortable giving a prescription to a new user. Still others provided more comprehensive contraceptive care (e.g., counseling about all available methods, prescription and management of hormonal methods, referral for procedure-based methods).

•*Preconception health and counseling.* Providers acknowledged the importance of optimal health prior to pregnancy and were aware that women may benefit from guidance in planning for pregnancy, but they tended to focus on contraceptive or prenatal care. Several reported taking a broad approach to preconception care, typically by assessing women's behavioral risk factors (e.g., alcohol, smoking, drug use), current medications, folic acid supplementation, chronic medical conditions, family history and pregnancy history. Physicians who provided these components of care expressed that doing so is an important way to inform women about how pregnancy can affect their health. A male family practitioner explained:

“I think [pregnancy is] a pretty big health issue. I've said ... many times that pregnancy is a bad health problem, and I say it with a smile on my face. It's ... the most wonderful thing in the world, but it's very serious.”

Participants differed in whether they believed that it is the primary care physician's role to initiate and discuss planning for pregnancy and preconception care. About half reported trying to initiate conversations about preconception care in certain situations, most commonly when performing routine Pap smears or when discussing contraception with younger women. None reported providing dedicated preconception care visits. Physicians did not consistently initiate preconception counseling because they did not prioritize it, they did not feel it was their role to do so or, in some cases, they were uncertain what they could offer. For example, one male physician commented that “[patients] should know that the opportunity is there to discuss it, but I don't really encourage them to discuss it.” Similarly, a male family practitioner said, “I don't know if it necessarily needs to routinely be done, but I think if it's something that the patient is thinking about, I definitely think it should be discussed.” Another male family practitioner said, “I don't think it'd be high on my list of priorities. I mean, 'cause I'm not sure what I'd tell them.”

Perceived Barriers to Care

•*Contraceptive access.* Overall, physicians felt that, given their own practices and local family planning clinics, access to contraceptive care was not a problem in their communities. One female family physician commented:

"I don't know that there's barriers. ... I mean, we have good access. We have family planning here, so I think that as far as [women's] getting here if they want to, that's not a problem. I think more the barrier is probably just not understanding the importance."

Family planning clinics were viewed as very important for providing contraceptive access for lower income and uninsured patients. The physicians perceived an overall shortage of obstetrician-gynecologists in their communities, and only one participant (an obstetrician-gynecologist) provided IUD and sterilization services. Nevertheless, they did not think it was difficult for women to obtain referrals for these services, although they acknowledged that some women might have to travel considerable distances for them and that access to sterilization was particularly limited for patients without insurance or on medical assistance. Participants all agreed that pharmacy access to contraceptives was adequate in their communities. Notably, none brought up emergency contraception availability when discussing pharmacy access.

•**Community norms as a barrier to care.** Participants considered rural community norms, which are accepting of unintended pregnancies, early childbearing and large families, the most prominent barrier to patients' receipt of contraceptive and preconception care. This perception is illustrated in comments from a female family practitioner:

"Some [women] may just stay on the farm and help their parents farm until they get married and the husband has a farm, and they just get married and help him and start having kids. That's kind of what's expected of them. ... Some of these girls have seven, or eight, or 10 other siblings [and think], 'If Mom did this, I guess that's what's gonna happen to me.' They have big families ... because Mom and Grandma did it."

Additionally, the physicians believed that rural residents, in contrast to urban dwellers, are indifferent to career and educational goals for young women. A female internist said:

"In the urban areas, [young women] have more careers, they're more interested in going to the colleges and all that. ... People here basically [have a] lower educational standard. ... They are not looking for a career. They are happy working in McDonald's."

As the physicians saw it, the general expectation that young rural women did not have ambitious life plans resulted in lack of any life planning, including family planning. Thus, in participants' view, the barriers to contraceptive use and pregnancy planning were rooted in the community norms, and not in health care access. A female internist stated that the true barrier to contraceptive access was the "total intentional negligence" on the part of the patients.

This perceived lack of interest in life planning was also described as a barrier to preconception care. A female internist said:

"Maybe it is the cultural background [rural women] grew up with. Their mom didn't plan, their grandmother didn't

plan, the sister didn't plan, so they don't think it is necessary to. They just think that it happens, just like that."

Similarly, a male family physician stated:

"It may be something cultural. I mean, I think it's a rural area where there's a lot of farms and a lot of ... families on the larger side, and I just don't think planning your pregnancy is high on their list of priorities."

As a result of these barriers, the physicians stated that encouraging women to engage in preventive reproductive health care could not be accomplished solely in their offices, but would require education and involvement in the schools and the communities. A female family practitioner said, "The problem is them wanting and understanding that it's important." And a female internist remarked, "The barrier is always at home." When asked where the social problems of unintended pregnancy and lack of contraceptive use should be addressed, one male participant responded:

"The optimal place would be in the home; I think that's pretty rare. The second most optimal place would be in the schools. ... I think [the physician's office is] probably the third line of defense, but there are a lot of people out there who never come to the doctor."

•**Patient preferences.** Primary care physicians tended to report that patients preferred to obtain contraceptive services from gynecologists, female physicians or family planning clinics, rather than from male primary care providers. One male internist reflected that he had been providing less and less contraceptive care over the years, and he cited three reasons for this shift:

"One is we got the new [female] partner, who [is doing more contraceptive care]. Secondly, ... they may prefer an ob-gyn—certified doctor. And the final thing—and this is very sad to say, but I hear this, too—I think there's a lot of prejudice because I'm a male."

•**Barriers to providing preconception care.** Participants widely agreed that lack of time was a barrier to providing preconception care, as exemplified by a female internist's comments:

"The problem that we as primary care doctors face is that there's just not enough time to get all of that information in a quick visit. You've got a limited amount of time, and you've got to talk about 10 other things, and I guess that conversation doesn't always come up routinely."

A male physician stated:

"I don't think it's practical for it to be done in physicians' offices at this time. Maybe if we get to the point of group visits and that sort of thing, we might be able to do it, but I'm not sure how much our patients would be interested in it."

Additionally, some participants stated that their rural patients did not initiate discussions about pregnancy planning with their primary care physician because they did not value it. One female family practitioner noted, "I think we could if the patient would come in and talk about it more, but they just don't." And a female internist said, "I think it is ... possible. I'm not saying they are going to

In participants' view, the barriers to [use of services] were rooted in ... community norms.

Overcoming attitudes such as indifference to family planning ... is essential to improving use of services.

listen to you; they'll say, "That's none of your business. ... That's my personal life."

Furthermore, reflecting the belief that specialists are needed to provide preconception care, several participants identified a lack of local specialists as a barrier. Specifically, physicians described lack of access to obstetricians with training in managing high-risk pregnancies who may assist with preconception care, or endocrinologists who may assist with management of diabetes. A male family practitioner remarked:

"We don't really have any obstetricians right here in town, ... so if [women] were thinking about wanting to see a specialist like that, it's not really available. They're gonna have to travel probably at least a half hour or 45 minutes to get somewhere to see one of those specialists."

Preconception Care for High-Risk Women

Participants widely agreed that preconception care was most important for women with specific risk factors, such as chronic medical conditions and medication use. They commonly cited diabetes, hypertension, seizure disorders and depression as conditions that would need particular attention. Comments from one male family practitioner illustrate this perspective:

"Certainly, if the patient [is] diabetic or hypertensive or on other medications for other medical problems, [it's] certainly appropriate to [discuss how childbirth] might impact other medical care. But to be honest, I would probably just limit [preconception counseling to those situations]."

Likewise, a male internist stated:

"I think women should plan a pregnancy, just like other events in life, because if they're on high-risk medications, it is not a good idea. Or if they have risk factors for pregnancy, [those risk factors] should be eliminated before. ... I strongly believe that women should understand that it should be a planned process."

When we asked specifically about participants' practices regarding women with diabetes, physicians noted the importance of glycemic control during pregnancy, and most were very aware of the risks of macrosomia and hypoglycemia in the newborn. However, only one participant specifically mentioned congenital malformations as an important adverse consequence of poorly controlled diabetes during pregnancy, which she routinely counseled diabetic reproductive-age women about as part of preconception care.

DISCUSSION

In this sample of primary care physicians practicing in rural central Pennsylvania, the greatest perceived barrier to providing preventive reproductive health care was community norms that do not support family planning. Several physicians described low community expectations for young women to pursue higher education or careers, which they felt resulted in low prioritization of

family planning. While physicians expressed disapproval of these norms, they did not see it as their role to confront them or try to empower women with regard to their reproductive options. Rather, they took a passive stance with regard to their role as providers of contraceptive and pregnancy planning services, and did not engage in more active counseling methods that can be effective in promoting reproductive health.

These physicians' observations about community norms are somewhat different from the perceptions of women residing in the study region, as reflected in a previous focus group study.²³ In that study, women reported a belief that reproductive outcomes were out of their control—i.e., that in spite of contraceptive use or improving health prior to pregnancy, fate or God would ultimately determine if they were to become pregnant or have healthy pregnancies. The key implication of these findings is that the traditional focus on increasing access to contraceptive and pregnancy planning services would not improve the use of contraceptive services or preconception care in communities where such attitudes predominate. Rather, overcoming attitudes such as indifference to family planning and perceptions that one cannot control pregnancy outcomes is essential to improving use of services.

In our sample, physicians uniformly believed that access to contraceptive services in their rural communities, either through their own practices or through family planning clinics, was sufficient. This was surprising, given that several participants reported not providing comprehensive contraceptive care themselves, and most rural communities suffer from a shortage of obstetrician-gynecologists.⁵ The physicians also acknowledged no barriers to pharmacy access in their communities, although at least one study has documented limited pharmacy hours in rural areas of Pennsylvania as a barrier to contraceptive availability.²⁴

Study participants' practices and opinions regarding preconception care are in contrast with the Centers for Disease Control and Prevention's recommendations, which suggest primary care as a key setting for preconception care, including discussing a reproductive life plan.¹⁴ While a few physicians were aware that women may need help ensuring their optimal health prior to pregnancy, none had incorporated routine preconception counseling into their practices, and most viewed this as a job for specialists treating high-risk women. While preconception care clearly is not yet a routine part of preventive primary care in these rural communities, it is unclear whether this finding is specific to rural areas.

Limitations

Our study has certain limitations. Although we interviewed a diverse group of primary care physicians in our target rural region and believe that we reached thematic saturation, the 19 study participants may not represent the experiences or opinions of all primary care physicians in

the region, and the small sample size did not permit formal comparisons across specialty areas. Additionally, the findings may not be generalizable beyond this particular rural area, which has a largely non-Hispanic white population. Future research might address differences by specialty area and examine provider and patients' perceptions in different rural contexts.

Conclusions

Previous efforts to increase contraceptive use and reduce unintended pregnancies have largely focused on improving access to care by increasing availability of providers and reducing financial barriers to services.²⁵ Our findings suggest that expanding access to preventive reproductive health services in rural areas may not be sufficient to improve use of contraceptive services and preconception care. Raising public awareness of the importance of pregnancy planning and good preconception health is needed. Our findings point to the importance of encouraging primary care physicians to take a more proactive role in promoting preventive reproductive health care. This could be accomplished through continuing education programs and skills-building workshops to increase provider knowledge about and self-efficacy for reproductive health counseling in rural communities.

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Author contact: cchuang@hmc.psu.edu