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Assessment of Contraceptive Needs and Improving Access in the U.S.-Affiliated Pacific Islands in the Context of Zika

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Abstract

Scientific evidence demonstrated a causal relationship between Zika virus infection during pregnancy and neurologic abnormalities and other congenital defects. The U.S. government's Zika Virus Disease Contingency Response Plan recognized the importance of preventing unintended pregnancy through access to high-quality family planning services as a primary strategy to reduce adverse Zika-related birth outcomes during the 2016–2017 Zika virus outbreak. The U.S.-affiliated Pacific Islands (USAPI) includes three U.S. territories: American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam, and three independent countries in free association with the United States: the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau. *Aedes* spp. mosquitoes, the primary vector that transmits Zika virus, are common across the Pacific Islands, and in 2016, laboratory-confirmed cases of Zika virus infection in USAPI were reported. CDC conducted a rapid assessment by reviewing available reproductive health data and discussing access to contraception with family planning providers and program staff in all six USAPI jurisdictions between January and May 2017. In this report, we summarize findings from the assessment; discuss strategies developed by jurisdictions to respond to identified needs; and describe a training that was convened to provide technical assistance to USAPI. Similar rapid assessments may be used to identify training and technical assistance needs

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Author Disclaimer

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in other emergency preparedness and response efforts that pose a risk to pregnant women and their infants.

Keywords

Zika; contraception; preparedness; USAPI

Introduction

Zika virus infection can cause severe brain abnormalities, including microcephaly and eye defects, among fetuses and infants of women infected with Zika during pregnancy.¹ Although transmission of Zika virus primarily occurs through the bite of an infected *Aedes* spp. mosquito, it can also be transmitted from a woman to a fetus during pregnancy or at birth, through sexual transmission, and blood transfusion.² The U.S. government's Zika Virus Disease Contingency Response Plan recognized the importance of preventing unintended pregnancy through access to high-quality family planning services as a critical consideration during the 2016–2017 Zika virus outbreak.^{3,4}

The U.S.-affiliated Pacific Islands (USAPI) include three U.S. territories: American Samoa, the Commonwealth of the Northern Mariana Islands (Northern Mariana Islands), and Guam, and three independent countries in free association with the United States: the Federated States of Micronesia (Micronesia), the Republic of the Marshall Islands (Marshall Islands), and the Republic of Palau (Palau). *Aedes* spp. mosquitoes are common across the Pacific Islands, increasing the likelihood of Zika being introduced into the population.⁵ In January 2016, American Samoa reported the first laboratory-confirmed cases of Zika virus infection in USAPI, and by May 2017, public health officials reported mosquito-borne transmission of Zika virus across the Pacific Islands, including Fiji, Marshall Islands, Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, and Tonga.⁶ In December 2017, across all U.S. territories, 4,690 pregnant women with laboratory evidence of Zika virus infection were reported,^{6,7} making contraceptive access a priority among women of reproductive potential (sexually active, not infertile, not currently pregnant, and not using a form of contraception), who chose to avoid a pregnancy during the outbreak.

As part of the CDC Zika emergency response, CDC conducted a rapid needs assessment by reviewing available data on reproductive health information and obtaining current information on access and availability of contraception through discussions with family planning providers and program staff in all six USAPI jurisdictions. In this report, we summarize findings from the assessment, discuss strategies developed by jurisdictions to respond to identified needs, and describe a training that was convened to provide technical assistance to USAPI in implementing these strategies.

Methods

Needs assessment

Due to the urgency of the Zika emergency, a rapid assessment methodology was used to assess available data and synthesize findings into a plan of action within a short time frame.⁸

Between January and May 2017, we used a mixed-methods approach and reviewed publicly available data on reproductive health indicators and family planning services to assess the availability of and barriers to contraception in USAPI, and held informational discussions with key stakeholders. Data sources were identified using Boolean phrases in PubMed, examples including "Pacific Basin" AND "contraception prevalence," "USAPI" AND "family planning," and "American Samoa" AND "fertility rate." Results were limited to English-language, peer-reviewed literature and publicly available reports published between 2006 and 2016. Data sources with relevant, recent information included census reports, Title X National Family Planning Program (Title X) Family Planning Annual Reports, the Central Intelligence Agency's World Fact Book, and reports from the United Nations. Each source was thoroughly examined for relevant data on reproductive health in USAPI and synthesized for needs assessment.

In August 2016, CDC published seven strategies states and jurisdictions could implement to increase access to contraception in the context of Zika preparedness and response: facilitate partnerships among insurers, manufacturers, and state/territorial agencies; reimburse providers for the full range of contraceptive services; remove logistic and administrative barriers for contraceptive services and supplies; train health care providers on current insertion and removal techniques for long-acting reversible contraception (LARC), which include intrauterine devices (IUDs) and contraceptive implants using evidence-based contraceptive guidance; support youth-friendly reproductive health services; engage smaller or rural facilities, including community health centers; and assess client satisfaction with service provision and increase consumer awareness.⁹

We held informational discussions with family planning nurses, medical doctors, family planning managers, and program coordinators from Title X and other family planning programs or contraception service provision sites from each USAPI jurisdiction to identify barriers and facilitators to implementing these strategies. These informants were identified through a professional network of federal, regional, and territorial family planning partners, and additional stakeholders were identified through informant referrals until all jurisdictions were represented. All informants voluntarily participated in discussions, which occurred by telephone, and were service providers in the jurisdictions they were describing. Informants described women's access to the full range of reversible contraceptive methods in their jurisdiction, barriers that prevent women from accessing contraception in their jurisdiction, and potential strategies to overcome barriers to contraceptive access. Informants also discussed women's attitudes and beliefs about Zika and women's knowledge of pregnancy prevention as a primary strategy to reduce adverse pregnancy and birth outcomes associated with Zika during pregnancy in each jurisdiction.

During the informational discussions, one person captured extensive notes and, when possible, verbatim quotes. Two reviewers separately reviewed notes using Microsoft Word to identify barriers, facilitators, and strategies reported by representatives. All barriers, facilitators, and strategies were categorized into two main themes: provider training and patient awareness and access to services. Following these analyses, reviewers used deductive coding to align representatives' comments with CDC's recommended state and local implementation strategies for increasing access to contraception during Zika preparedness

and response.¹⁰ Reviewers discussed disagreements until consensus was reached. The USAPI needs assessment was determined to be non-research public health practice.

Results

Needs assessment

Summary of secondary data. Data on reproductive health indicators across the USAPI are not uniformly or routinely reported, and available data included inconsistent reporting years, which limited our ability to draw comparisons between jurisdictions or with the U.S. women of reproductive-age population. In 2018, all USAPI jurisdictions, except Palau, reported higher fertility rates and birth rates than the United States (1.87 and 12.4, respectively) (Table 1).¹¹ Palau had the lowest rates (1.70 and 11.3) and Marshall Islands the highest (2.98 and 23.8) (Table 1).¹¹ Total fertility rate is defined as the average number of children that could be born per woman if all women lived to the end of their childbearing years and bore children according to a given fertility rate at each age and birth rate; birth rate is defined as the number of births during a year per 1,000 persons in the population at midyear.

Estimated contraception prevalence in 2015, defined as the percentage of women of reproductive age reporting current use of any contraceptive method, was only available on currently married women and varied by jurisdiction according to data from the United Nations. Data from the United Nations Population Division showed that about 1 in 3 currently married women 15–49 years of age in the Northern Mariana Islands and Palau (33.9% and 34.4%, respectively) reported using a modern method of contraception, including sterilization, an IUD, the implant, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods, lactational amenorrhea method, and emergency contraception (Table 1).¹² Guam reported the highest rate of currently married women using modern contraceptives (44.5%). Rates of periodic abstinence, the rhythm method, or withdrawal were not reported, and data were unavailable for American Samoa and Micronesia. Data on unmet need for family planning, defined as the number of women of reproductive age who would like to prevent or delay pregnancy, but are not using any contraceptive method, were only available on currently married women and were higher in the Northern Mariana Islands (22.1%) and Palau (22.9%), compared to the Marshall Islands (17.2%), Guam (16.8%), and the United States (6.7%).¹² Furthermore, the proportion of demand that was satisfied with modern contraception methods was higher in the Marshall Islands (68.1%) and Guam (63.5%), compared to Palau (55.4%), Northern Mariana Islands (54.5%), and the United States (84.7%) (Table 1).¹² Similar data from American Samoa and the Federated States of Micronesia were not available and therefore were not included in this assessment.

According to the 2015 National Title X Family Planning Annual Report, Title X funds supported family planning service delivery in all USAPI jurisdictions.¹³ Among Title X female family planning users at risk for unintended pregnancy, defined as women of reproductive age who are sexually active with a male partner and are not currently pregnant or seeking pregnancy, the reported rates of use of the most effective methods (i.e., sterilization, implants, and IUDs) were higher in Palau (22%), Northern Mariana Islands (21%), Micronesia (19%), and American Samoa (15%), compared to the Marshall Islands

(8%) and Guam (0%). For moderately (*i.e.*, injectables, vaginal rings, patches, pills, and diaphragms) and less effective methods (*i.e.*, female and male condoms, sponges, withdrawal, lactational amenorrhea, and spermicides), the reported rates were as follows, respectively: American Samoa (85%; 0%), Guam (82%; 13%), Marshall Islands (61%; 2%), Palau (75%; 3%), Mariana Islands (75%; 2%), and Micronesia (56%; 22%).¹³

Summary of informational discussions. All USAPI key informants ($n = 13$) reported methods of contraception available to women within their jurisdictions (Table 2). Condoms, oral contraceptive pills, injectables, and female and male sterilization were available in all jurisdictions. American Samoa and the Northern Mariana Islands were the only jurisdictions to have the full range of contraceptive methods available (including all forms of IUDs, except Jadelle[®], a non-Food and Drug Administration-approved implant). Injectables were the most commonly used method among women across all the jurisdictions, except in Guam, where patch was the most commonly used method.

Implementation strategies for increasing access to contraception during Zika preparedness and response. Informants reported barriers, facilitators, and potential approaches to address barriers and maximize facilitators, and responses were grouped under the seven CDC recommendations to increase access to the full range of reversible contraceptives (Table 3). The majority of responses best fit under three of the seven strategies: Strategy 3: remove logistic and administrative barriers for contraceptive services and supplies; Strategy 4: train health care providers on current insertion and removal techniques for LARC using evidence-based guidance; and Strategy 7: assess client satisfaction with service provision and increase consumer awareness.

Barriers

Under Strategy 3, most informants ($n = 11$) reported limited numbers of contraception provision sites, limiting women's access to contraception services same-day access. In addition, some informants ($n = 5$) reported limited access to transportation for traveling long distances for family planning or contraception appointments. Under Strategy 4, all informants ($n = 13$) reported a limited number of health care providers trained in client-centered contraceptive counseling and LARC insertion, removal, and management. One informant ($n = 1$) reported that the high rate of health care providers migrating out of USAPI makes it a challenge to maintain a cadre of trained providers. Under Strategy 7, most informants ($n = 10$) reported that cultural norms and practices limited women's use of the full range of reversible contraceptive methods, especially among unmarried women and adolescents.

Some informants ($n = 7$) reported that myths and misperceptions about contraceptive methods paired with limited awareness of the full range of reversible contraceptive methods lead to a high number of women using no method, and moderately and least effective methods, or low use of highly effective LARC methods. Finally, some informants ($n = 6$) reported a lack of awareness of Zika virus as a public health threat in their communities and the role contraception may play in preventing Zika-related adverse pregnancy and birth outcomes among women who choose to delay or avoid pregnancy during a Zika virus outbreak.

Facilitators and potential approaches to addressing barriers and maximizing facilitators

Informants discussed previous approaches to increase access to and the availability of contraception in their jurisdiction, and identified facilitators and potential approaches that could be implemented to expand these services. To address the barriers identified under Strategy 3, some informants ($n = 4$) reported that some jurisdictions have health assistants at dispensaries to support same-day provision of contraception. Increasing these clinics', dispensaries', and community health centers' capacities to provide contraception services and same-day access to methods may reduce logistical barriers and increase the reach of family planning services across a jurisdiction.

To address barriers identified under Strategy 4, some informants ($n = 6$) reported that providers are trained to initiate the full range of contraceptive methods, but still noted the need for refresher courses and trainings for providers in rural areas. All informants ($n = 13$) indicated that a cross-jurisdictional training on implementation strategies for increasing access to contraception during the Zika response could be an immediate and feasible approach to address the noted barriers. Finally, to address barriers identified under Strategy 7, some informants ($n = 5$) reported that using previously successful examples of marketing campaigns for family planning services could be adapted to other jurisdictions. Increasing communication between clinics and ministries/departments of health and community outreach through mobile clinics can further remove barriers and increase awareness for patients seeking contraceptive services.

Training

A major barrier identified by informants was a lack of provider training on LARC insertion and removal, which is one of CDC's seven identified strategies for jurisdictions to increase access to contraception. In addition, informants from each USAPI jurisdiction formally requested technical assistance from CDC to help address the needs of women of reproductive potential and Zika prevention. In response, CDC convened key leadership, family planning providers, and clinical care organizations that provide contraception from each USAPI jurisdiction to educate, train, and discuss facilitators for increasing access to highly effective contraception during the Zika outbreak. Meeting participants included both informants involved in the informational discussions and individuals identified through informant referrals to ensure available and appropriate individuals from each jurisdiction were in attendance.

Before the training, each participant completed an informal assessment through e-mail to build upon the information gathered during informational discussions. Participants shared additional information on women's attitudes and perceptions of Zika-related birth defects; if their family planning program or contraception provision site provides patients with information on the sexual transmission of Zika or contraception as a prevention strategy; the availability of the full range of contraceptive methods (including LARC, injectables, oral contraceptive pills, sterilization, etc.); barriers to stocking of certain methods; and requests for specific training needs. All participants responded and provided information for the assessment. Information provided in the assessment informed the curriculum and training agenda.

We conducted the training over 3 days in June 2016 in Honolulu, Hawaii, due to its proximity to all USAPI jurisdictions and had 21 participants in attendance. Participants included program managers, coordinators, physicians, family planning nurse practitioners, nurses, and medical assistants. The training was didactic and included discussion of jurisdiction-level strategies for reducing identified barriers and facilitators for improving access to contraception and how contraception could be used as a medical countermeasure to reduce adverse pregnancy and birth outcomes among women who chose to avoid pregnancy during the Zika epidemic, and an expert panel with representatives from jurisdictions for peer-to-peer sharing. The training also reviewed CDC's U.S. Medical Eligibility Criteria for Contraceptive Use,¹⁴ U.S. Selected Practice Recommendations for Contraceptive Use,¹⁵ CDC and the U.S. Office of Population Affairs' Quality Family Planning Recommendations,¹⁶ client-centered contraceptive counseling, and evidence-based recommendations for immediate postpartum reversible contraception.¹⁶ Two workshops were held concurrently: a hands-on IUD workshop for clinically trained participants (physicians and nurses) and a session on local responses to Zika within the scope of family planning for the public health participants. Following these workshops, a Nexplanon[®] training was held for 10 clinicians on insertion and removal techniques for the hormonal implant.

The final day of the training included breakout sessions to develop jurisdiction-specific action plans based on strategies identified during the sessions. These action plans served as a tool for USAPI jurisdictions to document process and progress related to the goals, strategies, actions steps, successes, and challenges. In the action plans, a goal of one jurisdiction was to collaborate with the Department of Education on outreach efforts in local high schools and colleges to educate and increase awareness of contraception. One jurisdiction stated their plan to meet with their colleagues at the Ministry of Health to share what they learned and discuss how to improve their current activities. One jurisdiction expressed their interest in setting up a Facebook page to share information with youth about family planning. Another jurisdiction shared their plans to host a workshop for all family planning coordinators in their jurisdiction to share information and discuss the strategies identified at the training.

Discussion

Rapid assessment was used to identify technical assistance and training needs in USAPI related to the prevention of unintended pregnancy as a primary strategy to reduce adverse Zika-related birth outcomes. Analyses of data collected from literature review and qualitative informational discussions can be used to enhance the completeness and confirmation of data, and is a viable option to understand and strengthen needs assessment results.¹⁷ Given the urgency of working within a short-term emergency response and the limited data on reproductive health indicators and contraception use among women of reproductive age in USAPI, the triangulation of needs assessment and informant discussion data allowed us to rapidly assess the accessibility to and availability of contraceptive services and identify the barriers and facilitators for technical assistance and training needs. Previous research has reported the use of this methodology to quickly gather essential data on contraception access and availability as well as technical assistance and training needs during the Zika virus outbreak in other U.S. jurisdictions, including Puerto Rico and the U.S.

Virgin Islands,^{8,18} to address prevention of unintended pregnancy as a primary strategy to decrease Zika-related adverse pregnancy and birth outcomes.

Data gathered during informational discussions highlighted multiple barriers to access and availability of contraceptive services. Gaps in contraceptive access, lack of awareness of Zika-related adverse pregnancy and birth outcomes among women of reproductive age, and limited service provision in each USAPI jurisdiction supported the need to build leadership and health care provider capacity in contraception knowledge, evidence-based contraceptive guidelines, contraceptive counseling, and initiation and management, including insertion and removal of LARC methods. Multiple large-scale programs and research studies to reduce barriers to contraceptive access have reported the importance of building capacity among providers and staff, including training on contraceptive counseling, providing didactic information about the full range of reversible contraceptives, and practical training in insertion and removal of LARC devices.^{19–22} In addition, previous research highlights that health care providers from remote or rural areas report lack of trained LARC providers as a key barrier.^{23,24} Offering to train in a central and easily accessible location may provide opportunities for health care providers from remote areas to participate. Furthermore, providing training materials in a format or template that can be used or adapted for local trainings may benefit other health care providers who did not attend the training or leadership to understand and support outcomes from training (*e.g.*, changes in clinic practice).

The training brought together teams from USAPI jurisdictions and provided an opportunity for peer-to-peer sharing across jurisdictions. In-depth discussions about challenges and barriers to contraception access, many of which were similar across jurisdictions, and strategies, including opportunities, successes, and lessons learned, emphasized jurisdiction-led examples that may inform and support adoption in other jurisdictions. Previous research has reported that state and local implementation strategies for increasing access to contraception during Zika preparedness and response could facilitate increased access to contraception, which might decrease the number of unintended pregnancies affected by Zika virus.¹⁰

In addition, the Zika Contraception Access Network (Z-CAN) implemented in Puerto Rico during the 2016–2017 Zika virus outbreak successfully served 29,221 women seeking to prevent pregnancy during the risk period for Zika infection.²⁵ Z-CAN demonstrated the success of rapidly implementing a network to increase access to the full range of reversible contraception that may have decreased the number of adverse birth outcomes following unintended pregnancy. The USAPI jurisdiction-specific action plans could be used to further identify goals, strategies, and action steps to increase contraception access and as a tool to identify knowledge and resource gaps. Other initiatives have successfully used action plans to guide state-led teams' activities for the subsequent year.^{26,27}

Following the training, all jurisdictions requested information presented during the training in a format they could share with colleagues and staff and use for local trainings, including slides and handouts. A clinic in one jurisdiction established an account to purchase Nexplanon since they had received insertion and removal training. The same jurisdiction

organized an outreach event with various stakeholders and the community health center to provide contraceptive services to remote and rural locations within their island. Furthermore, they ordered additional patient education materials, including brochures and posters, translated it into several local languages for distribution within the clinic setting, and developed job aids to assist teaching patients who are non-English speaking and/or of low literacy. Several jurisdictions collaborated with their Department of Education to increase awareness of contraception among youth as well as increase youth-friendly services.

Two jurisdictions requested additional technical assistance to develop culturally appropriate health messaging about contraception in the context of Zika. In response, CDC provided technical assistance to support formative research and development of communication materials and an implementation plan. Following the training, CDC held monthly follow-up calls with each of the six jurisdictions to address remaining technical assistance needs between July and December 2016. Each call discussed progress on goals and strategies of the action plans as well as recent achievements, barriers, and ongoing activities within the jurisdiction following the training and strategies to support their progress moving forward.

To our knowledge, this is the first comprehensive assessment of barriers and facilitators to contraception access in the USAPI. Similar rapid assessments may be used in other jurisdictions to identify training and technical assistance needs to increase awareness of contraception as a primary prevention strategy for adverse Zika-related pregnancy outcomes among women who choose to delay or avoid pregnancy.

The findings in this report are subject to at least five limitations. First, although we reviewed publicly available data on reproductive health indicators and family planning services, there may be data that were collected as part of required data collection for programmatic or funding requirements (e.g., quality indicators and performance measures), but not publicly available. Second, inconsistent reporting of data on reproductive health indicators across the USAPI limits our understanding of their reproductive health landscape, particularly among unmarried women. Third, information on contraceptive access was obtained from a relatively small number of persons from USAPI jurisdictions; analysis and subsequent approaches developed from information gathered might not be generalizable to these jurisdictions. Fourth, data collected from informants were self-reported and, therefore, do not necessarily represent official jurisdiction policies or all activities occurring in a jurisdiction. Finally, data collected from these informants were limited to their perspectives and may not fully represent the attitudes and beliefs of the women in their jurisdictions. Further research may be needed to assess the barriers to accessing contraception from the perspectives of women in the USAPI.

Conclusion

Prioritizing access to contraception in an emergency response may give women options for preventing adverse birth outcomes through pregnancy prevention during a time of crisis. When an urgent public health emergency response is needed, rapid assessment methodology can be used to identify the accessibility to and availability of contraceptive services, as well as the barriers and facilitators that may be addressed through technical assistance and

training to support a timely response approach. Capacity building with high-quality, evidence-based training may provide opportunities to address identified needs; facilitate peer-to-peer discussion about challenges and barriers to contraception access; and share opportunities, successes, and lessons learned. Contraception played an important role in preventing adverse pregnancy and birth outcomes during the Zika response and may be a key strategy in other emergencies in which infectious or environmental exposures pose a risk to pregnant women and their infants. Similar rapid assessments can be used to identify training and technical assistance needs in other emergency preparedness and response efforts that pose a risk to pregnant women and their infants, or in nonemergency settings in which the goal is to increase access to contraception or reduce unintended pregnancy.

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Table 1.

Reproductive Health Indicators, U.S.-Affiliated Pacific Islands by Jurisdiction

Jurisdiction	No. of women 15-54 years of age ^{a,b} (2018)	Total fertility rate ^{a,c} (2018)	Birth rate ^{a,d} (2018)	Contraception prevalence ^{b,d} (2015)		Unmet need for family planning prevalence ^e % (80% CI) (2015)	Proportion of demand satisfied with modern methods ^{e,f} % (80% CI) (2015)
				Any method % (80% CI)	Modern method % (80% CI)		
American Samoa	14,111	2.57	19.0	—	—	—	—
Guam	43,023	2.92	19.4	53.6 (39.1–67.3)	44.5 (30.9–58.3)	16.8 (9.4–25.7)	63.5 (47.6–76.9)
Marshall Islands	20,675	2.98	23.8	45.9 (35.4–56.7)	43.1 (33.2–53.3)	17.2 (11.4–24.0)	68.1 (57.0–77.8)
Micronesia (Fed. States of)	31,228	2.37	19.6	—	—	—	—
Northern Mariana Islands	13,609	2.76	14.9	39.7 (25.1–58.0)	33.9 (20.6–51.0)	22.1 (13.2–31.8)	54.5 (37.5–71.6)
Palau	5,586	1.70	11.3	38.9 (26.9–52.3)	34.4 (23.1–47.2)	22.9 (15.1–31.7)	55.4 (41.0–69.2)
US	85,579,488	1.87	12.4	75.1 (65.8–82.4)	69.2 (59.5–77.4)	6.7 (3.8–11.2)	84.7 (76.6–90.4)
World	2,091,501,795	2.42	18.2	63.6 (60.9–66.0)	57.4 (54.8–59.9)	11.9 (10.7–13.3)	76.0 (73.7–78.1)

^aSee Central Intelligence Agency.¹¹

^bData on the number of women 15–44 years of age, a proxy commonly used for women of reproductive age, were not publicly available. However, data on the number of women 15–54 years of age were available and used as an estimate for women of reproductive age, noting the limitation that pregnancy among women 50–54 years of age is uncommon.

^cTotal fertility rate defined as the average number of children that would be born per woman if all women lived to the end of their childbearing years and bore children according to a given fertility rate at each age.

^dBirth rate defined as the average number of births during a year per 1,000 persons in the population at midyear.

^eSee United Nations, Department of Economic and Social Affairs, Population Division¹²

^fUnited Nations model-based estimates are based on data that are derived from sample survey reports. Survey data estimate the proportion of married women (including women in consensual unions) currently using, respectively, any method or modern methods of contraception. Modern methods include female and male sterilization, the IUD, the implant, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods (including the diaphragm, cervical cap, and spermicidal foam, jelly, cream, and sponge), LAM, emergency contraception, and other modern methods not reported separately.

IUD, intrauterine device; LAM, lactational amenorrhea method.

Table 2.
Reported Available Contraception by Method Type, U.S.-Affiliated Pacific Islands by Jurisdiction, 2017

Jurisdiction	<i>Long-acting reversible methods</i>										
	Hormonal IUDs	Copper IUDs	Nexplanon® implant	Jadelle Implant	Injectable	Pill	Patch	Vaginal ring	Condoms	Sterilization	
American Samoa	X	X	—	N/A	X ^a	X	X	X	X	X	
Northern Mariana Islands	X	X	X	N/A	X ^a	X	X	X	X	X	
Guam	—	—	—	N/A	X	X ^a	X	X	X	X	
Micronesia	—	X	—	X	X ^a	X	—	—	X	X	
Marshall Islands	—	X	—	X	X ^a	X	X	—	X	X	
Palau	X	—	—	X	X ^a	X	—	—	X	X	

^aIndicates most commonly used method of patients, as reported by jurisdictional representatives.

N/A, Jadelle™ is not approved for use in the United States; X, contraceptive method available.

Table 3. Reported Barriers, Facilitators, and Strategies for Increasing Access to Contraception, U.S.-Affiliated Pacific Islands, 2017

Strategy	Barriers	Facilitators
1. Facilitate partnerships among private and public insurers, device manufacturers, and state agencies	<p>Nexplanon (implant) is recently available to ship to some jurisdictions, but requires certified training, which is unavailable unless a certified trainer comes to the respective jurisdiction.</p> <p>Due to high manufacturer charges, health care coverage for implant is limited.</p> <p>Limited referrals for contraceptive services from outside providers.</p>	<p>Condoms provided through partnership with UNFPA.</p> <p>UNFPA provides training on inventory resupply/product ordering.</p> <p>Potential approaches to address barriers and maximize facilitators</p> <p>Facilitate partnership between drug manufacturer and family planning coordinators in each jurisdiction to coordinate certified implant trainings for providers.</p>
2. Reimburse providers for the full range of contraceptive services	<p>High upfront costs of LARC.</p>	<p>Facilitators</p> <p>In some jurisdictions, UNFPA can provide no or low-cost contraception.</p> <p>Potential approaches to address barriers and maximize facilitators</p> <p>Facilitate a partnership between UNFPA program and family planning coordinators to obtain the full range of contraceptive methods for local clinics.</p>
3. Remove logistic and administrative barriers for contraceptive services and supplies	<p>Few locations offer contraception, either all or certain types (<i>i.e.</i>, LARC); patients who choose to use contraception may have to travel long distances for an appointment.</p> <p>Limited access to transportation for women who travel long distances for a family planning or contraception appointment.</p> <p>Limited number of female health care providers, particularly in rural areas, given the cultural appropriateness for women to see a female health care provider in some jurisdictions.</p> <p>Understaffed clinics are unable to keep up with inventory and supply ordering.</p> <p>Limited same-day services due to the need for referrals to family planning providers.</p>	<p>Facilitators</p> <p>In some jurisdictions, health assistants at dispensaries increase capacity for same-day provision of full range of reversible methods.</p> <p>Potential approaches to address barriers and maximize facilitators</p> <p>Improve care coordination between clinics on contraception provision for patients seeking specific types.</p> <p>Expand service sites for contraceptive services (<i>i.e.</i>, community health centers) to reach more women.</p>

Strategy

4. Train health care providers on current insertion and removal techniques for LARC using evidence-based guidance	<p>Increase community outreach through mobile clinics.</p> <p>Barriers</p> <ul style="list-style-type: none"> Limited number of trained clinic staff. High turnover rate of trained providers due to health care providers migrating out of USAPI. Limited training opportunities on LARC insertion, removal, and management techniques for other health care providers (e.g., midwives). Limited staff trained in client-centered contraceptive counseling. LARC are only available at the central health centers because not all providers in rural areas have been trained on insertion and removal techniques. <p>Facilitators</p> <ul style="list-style-type: none"> In some jurisdictions, providers are trained to initiate the full range of reversible contraceptive methods. Potential approaches to address barriers and maximize facilitators Coordinate trainings on LARC insertion, removal, and management for all providers, particularly in rural areas.
5. Support youth-friendly reproductive health services	<p>Barriers</p> <ul style="list-style-type: none"> Culturally appropriate resources and tools are needed for outreach education in the clinic and communities. Limited health education and messaging, targeting adolescents regarding contraception. Limited number of service sites offering extended or weekend appointments to allow adolescents to seek services outside of school hours. <p>Facilitators</p> <ul style="list-style-type: none"> In some jurisdictions, secondary schools implement a family planning curriculum. Potential approaches to address barriers and maximize facilitators Train health care providers to provide adolescents with client-centered reproductive health services. <p>Barriers</p> <ul style="list-style-type: none"> Limited culturally appropriate resources and tools for outreach education in the clinic and communities. <p>Facilitators</p> <ul style="list-style-type: none"> Leverage use of community health centers to increase number of contraception service sites. Potential approaches to address barriers and maximize facilitators Communicate and coordinate between clinics and ministries/departments of health on family planning messaging and where patients can access services. Increase community outreach through mobile clinics.
7. Assess client satisfaction with service provision and increase consumer awareness	<p>Barriers</p> <ul style="list-style-type: none"> Lack of capacity to assess client satisfaction with family planning services. Limited access for unmarried women and adolescents' use of contraceptive methods due to cultural norms. Limited patient awareness of the full range of reversible contraceptive methods.

Strategy

Limited patient awareness of Zika as a threat and the role of contraception in preventing Zika-related adverse birth outcomes.

Facilitators

Use examples of and adapt previous successful marketing campaigns for family planning services.

Potential approaches to address barriers and maximize facilitators

Educate providers, the health care community, and patients on the available family planning and contraception options.

Communicate and coordinate between clinics and ministries/departments of health on family planning messaging and where patients can access services.

LARC, long-acting reversible contraception; UNFPA, United Nations Population Fund.