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AVAILABILITY AND AFFORDABILITY OF CONTRACEPTIVE COMMODITIES IN PHARMACIES AND PRIMARY HEALTHCARE FACILITIES IN ARMENIA

DESCRIPTIVE STUDY REPORT



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EXECUTIVE SUMMARY

The vast majority of unintended pregnancies worldwide are a result of contraceptive nonuse, inconsistent use, or a reliance on ineffective methods of contraception. Key barriers to contraceptive use include financial constraints, lack of knowledge about the safety and efficacy of the various methods as well as the unavailability of choices. The two main factors that determine safe behavior in terms of preventing unwanted or mistimed pregnancies are knowledge about contraceptive commodities and their availability.

The reproductive health of the Armenian population is a top priority for the Armenian Government. As part of the national Reproductive Health Program and Strategy, the Ministry of Health implements numerous activities in close collaboration with national and international organizations. In spite of significant improvements over the past decade, the overall health status of the population is poor and utilization of reproductive health services is low. Among women using traditional methods of contraception, 37% mentioned cost and 26% mentioned unavailability of modern methods as reasons for not using more reliable modern methods of contraception. Abortion in Armenia continues to be used as a means to control and regulate fertility with 45% of all pregnancies ending in abortion. Abortion is believed to be more accessible, safer and cheaper than modern contraceptive methods. Two out of five (37%) women in Armenia have had an abortion. Women who have had an abortion report that the lack of comprehensive information (60%) and unavailability or high cost (15%) deterred them from using modern methods of contraception.

In July 2007 Project NOVA conducted a small-scale study to examine the availability and affordability of modern methods of contraception in pharmacies, polyclinics, ambulatories and health posts in Armenia. The study design used a descriptive, cross-sectional survey and included the following Armenian health networks: Talin in Aragatsotn marz (province), Vedi in Ararat marz, Armavir in Armavir marz, Sisian in Syunik marz and Vayk in Vayots Dzor marz.

Data collectors contacted over 150 healthcare facilities (polyclinics, ambulatories/health centers and health posts) and pharmacies. The main findings are summarized into three main topics: availability, affordability and consumption. The high response rate and overall insignificant differences between the health networks suggest that the study findings may be generalized country-wide.

Study results show limited availability (18%) of the appropriate contraceptive method mix in all types of facilities participating in the study throughout the five health networks. Only 6% of ambulatories and health centers, 44% pharmacies and 80% of polyclinic had the appropriate method mix leaving 94%, 46%, and 20%, respectively, without any methods of family planning available. No methods of family planning were available at rural health posts.

Overall, pharmacies provided a better choice of modern contraceptives than public primary healthcare facilities where methods are available free of charge. Method mix availability was higher (61%) in urban facilities compared to rural areas (3%). While the availability of condoms and hormonal pills was the highest in all types of facilities, intrauterine devices (IUDs) were difficult to find in both private and public sector. IUDs are the method of choice for almost 10% of contraceptive users in Armenia and are known to be the most cost effective method.

The calculation and analysis of annual costs of modern methods of contraception in Armenia revealed that the IUD was the most affordable method of contraception and spermicides the

most expensive. Comparison of direct individual expenses associated with the use of each method during a one-year period with average individual annual wages in Armenia demonstrated that most of the modern methods constituted more than one percent of the yearly wages. Expenses related to contraceptive use also indicated that, with the exception of the IUD, the cost of an abortion for women was lower than the cost of using contraception for a year.

The study has shown a greater need for more effective family planning services, including better financial and geographic access to modern methods of contraception in rural areas.

1. INTRODUCTION

One fifth of the worldwide burden of illness and premature death is due to problems in reproductive and sexual health.¹ In May 2004, the 57th World Health Assembly adopted the World Health Organization's strategy on reproductive health to accelerate progress towards meeting the Millennium Development Goals, which include significant reduction of maternal mortality worldwide. One aspect of that strategy includes providing high quality contraceptive services. Methods of contraception make it possible for individuals and couples to determine the number and spacing of their children¹ and to reduce reliance on abortion as a means to prevent unwanted pregnancy. The vast majority of unintended pregnancies are due to contraceptive nonuse, inconsistent use and reliance on ineffective methods of contraception.² However, 29% of women in developing countries have an unmet need for modern methods of contraception. Lack of a method of choice, knowledge about safety, effectiveness and availability of choices as well as financial constraints are listed among key barriers to contraceptive use worldwide.¹

When effective methods of contraception became available in the second half of the 20th century, it was recognized as the "first reproductive revolution"³. Today there are many modern methods of contraception with different routes of administration, including hormonal pills, spermicides, IUDs, condoms, rings and others.³ Direct access to the modern methods of contraception is important for all types of contraception and especially for emergency contraceptives, since they are most effective within 72 hours after unprotected intercourse – the earlier it is used the more effective the result.^{4,5} Emergency contraception is a relatively new method which could also prevent a significant number of unwanted or mistimed pregnancies.⁶ The determinants of contraception use are women's and providers' knowledge of the method; prescription and dispensing patterns of physicians and clinics; and acceptability of the method.^{6,7} Women who know where family planning services and modern methods of contraception are available are more likely to use them.⁸ A major barrier to contraception access is lack of availability of contraceptive commodities at pharmacies, which has not been thoroughly investigated.^{6,9} However, prevalence of modern methods of contraception is highest in countries where access to all methods is uniformly high.¹⁰

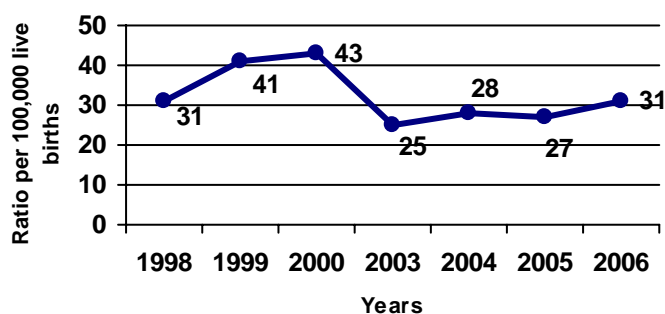
Two main factors that determine safe behavior in terms of preventing unwanted or mistimed pregnancies are knowledge about contraceptive commodities and their availability. These factors are interrelated, since lack of both patient and provider knowledge results in the lack of supply and demand.⁶ For an individual to make an informed choice and to use an appropriate method of contraception, available methods should include male and female methods, some temporary, reversible methods as well as long-acting and permanent ones.^{10,11}

The reproductive health of the Armenian population is a top priority for the Armenian Government. As a result of the National Reproductive Health Program and Strategy, the Ministry of Health (MOH) implements numerous activities in close collaboration with national and international organizations. In spite of significant improvements over the past decade, the overall health status of the population is poor and utilization of reproductive health services is low.¹²

From 1980-1990s the total fertility rate (TFR) in Armenia remained stable, fluctuating between 2.3 and 2.6. This is considered low for a developing country (TFR 3.1-3.8) but high in comparison with developed industrial countries (TFR 1.8). However, current data demonstrates a significantly lower fertility rate for Armenia. Official MOH statistics report a TFR of 1.2 for 2001, 1.4 for 2004, and the 2005 Armenian Demographic and Health Survey (ADHS) shows a slightly higher rate of 1.7.¹² Both sources indicate that currently the TFR is

below the replacement level of 2.1. The overall number of births decreased compared with previous decades and the average family size declined. Eighty percent of Armenian families have two children. A significant percent of married women (70%) and men (62%) do not want to have any more children, although in ideal conditions they would like to have on average 2.7-3.1 children.¹²

Figure 1. MMR in Armenia

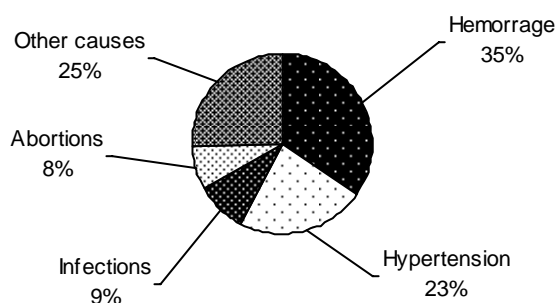


The maternal, perinatal, and infant mortality rates in Armenia exceed that of the developed countries (Figure 1). The maternal mortality ratio (MMR) is an important indicator of women’s health and their access to health services. The current Armenian MMR is similar to the data reported in late 1980s, which suggests that Armenia experienced little improvement.

According to the Republic of Armenia Ministry of Health data for 1993 – 2006 major causes of maternal deaths are hemorrhage, hypertension, infection, and abortion (Figure 2). A significant proportion of maternal deaths (75%) occurs after the 28th week of gestation.

Abortion in Armenia continues to be used as a means to control and regulate fertility with 45% of all pregnancies ending in abortion.¹² Abortion is believed to be more accessible, safer and cheaper than modern contraceptive methods. Two out of five (37%) women of reproductive age in Armenia have had an abortion.¹² Earlier studies revealed that women who had abortions mentioned that lack of comprehensive information (60%) and unavailability or high cost of

Figure 2. Causes of Maternal Deaths in Armenia, 1993 - 2006 (n=193)



contraceptives (15%) deterred them from using modern methods of contraception.² The 2005 ADHS discovered a significant decline in the total abortion rate from 2.6 per woman in 2000 to 1.8 in 2005.¹² One of the possible reasons for the decline could be due to the recent wide availability of the drug Cytotec® (misoprostol), which is used off-label to induce abortion of a pregnancy up to 12 weeks of gestation.¹² The decline in total abortion rate in Armenia has been observed along with a decline in the use of contraceptives, which correlates with the overall declining total fertility rate. This confirms findings from the empirical study on the aggregate relationships between contraceptive use and induced abortion, which says that holding other factors constant, a rise in contraceptive use and/or effectiveness must lead to a decline in induced abortion and vice versa. When fertility levels in a population are changing, the relationship between contraceptive use and abortion may take a variety of forms, frequently involving a simultaneous increase/decrease in both.¹³

Overall knowledge regarding existence of modern and traditional contraceptive methods among Armenian men and women is high: 97% and 95% respectively. On average men and women can name four to five methods of contraception.¹² Even though the use of family planning is relatively high among married Armenian women (53%), only 19.5% use modern methods. The most commonly used method is withdrawal (28%), followed by the IUD (9%) and male condom (8%).¹²

Most Armenian women disapprove abortion and prefer birth control, indicating a significant demand for fertility regulation in Armenia. However, this demand is largely unfulfilled as Armenian women and men of reproductive age still do not have access to modern means of family planning.¹² If traditional method users shifted to modern methods and the unmet need was fulfilled, the abortion rate would be reduced by 63%.¹⁰ Among women using traditional methods of contraception, 37% mentioned cost and 26% mentioned unavailability as reasons for not using modern methods.¹⁴

According to the PRECEDE-PROCEED behavior change model there are several groups of factors necessary in order for healthy behavior, in this case the use of modern methods of contraception, to occur. They include predisposing, enabling and reinforcing factors.¹⁵ The present study focuses mainly on the enabling factors and examines the availability and affordability of modern methods of contraception in the pharmacies, polyclinics, medical ambulatories health centers and health posts of five health networks (HN)* in Armenia (one HN per marz).

The two main research questions in the study were:

1. What is the *availability* of modern methods of contraception in pharmacies and primary health care (PHC) facilities in five HNs?
2. What is the *affordability* of modern methods of contraception in five HNs?

2. METHODS

Study design

The study was conducted using a one-time descriptive, cross-sectional survey design. The study areas included the health networks (HNs) of Armenia: Talin HN in Aragatsotn marz, Vedi HN in Ararat marz, Armavir HN in Armavir marz, Sisian HN in Syunik marz and Vayk HN in Vayots Dzor marz. It includes in-patient and out-patient service delivery sites, e.g. hospital and polyclinic (women's consultation center), ambulatories, health centers and health posts. For the most part, HNs in Armenia correspond to the geographical sub-division by regions within marzes. In this context terms (health) network and region are interchangeable (See Appendix 1 for maps of the five selected HN).

In order to capture all legal sources of modern contraceptives, network pharmacies were also included in the study. The Ministry of Health (MOH) provided the list of licensed pharmacies. The sampling unit was a licensed pharmacy, a polyclinic, an ambulatory or health center and a health post. The sample included all polyclinics, ambulatories, health centers, some of the health posts (convenience sample of facilities where Project NOVA conducted community partnership for health initiative) and all of the pharmacies in the villages of the HN. Since the number of pharmacies in the cities was small, and the probability of non-response and/or refusal existed, all pharmacies were included in the study.

Study Instrument

The research teams designed a study instrument, which included brand names of contraceptive commodities potentially available in Armenian public and private sectors. The data collection tool was based on an instrument used in another Armenian study.¹⁶ The study instrument consisted of five sections broken down by the type of contraceptive methods:

* A HN is defined as health facilities linked by both ownership structure and referral patterns.

hormonal pills, emergency contraceptives, spermicides, IUDs and condoms (See Appendix 3 for the instrument). The instrument included information on the manufacturer, unit, dose, sub-unit, price, sales/usage per month and available stock. Selected types and specific names of the contraceptive commodities were based on the list of registered contraceptives in Armenia obtained from the Scientific Center of Drug and Medical Technology Expertise and from eight price lists from pharmaceutical companies distributing contraceptive commodities in Armenia.

Project NOVA pre-tested the instrument in two pharmacies of Yerevan where most contraceptive commodities were available. The study team revised the final instrument based on results of the pretest. The interviewer package included the study instrument, guidelines on how to complete the study form (Appendix 4), a verbal informed consent form (Appendix 5), and the list of facility identification numbers (created by Project NOVA).

Data collection

The study team identified and trained five interviewers for the data collection. The student investigator conducted the training with assistance from the Project NOVA Senior Research, Monitoring and Evaluation Officer. The training took two hours and covered basic aspects of the study, including study design, data collection, ethical considerations during data collection, and fieldwork logistics. The field work was conducted within a one month period.

The study team entered data using the Access database and then exported and analyzed data using the STATA statistical package. The team conducted data entry and cleaning in parallel with data collection, which lasted one month. The team used range and outliers check techniques to clean the data.

Variables

For purposes of the study *Availability* is defined as: “availability of at least three methods of modern contraception in pharmacies or PHC facilities.” Given the Armenian circumstances, the term availability of at least three methods is used interchangeably with the term “method mix”.

Affordability or ability to pay for modern methods of contraception is defined as: “a proportion (percentage) of annual income (wages) paid for yearly use of a specific method of modern contraception.”

Study Limitations

Several limitations possibly could bias the study results. The present study used information regarding only registered methods of contraception in registered facilities. The study was conducted only in public PHC facilities, however, maternities or delivery/gynecological wards also provide family planning services (in particular and most commonly for IUD insertion) to the population. Maternities and hospital delivery/gynecological wards were not included in the assessment: this may cause an underestimate of the availability and use of IUDs by the population within health networks.

Ethical considerations

The Institutional Review Board of the American University of Armenia approved the study. The study did not pose any risk to the participants since information collected was public and could not be used to harm the participants. It did not include specific information on pharmacists or healthcare providers.

3. RESULTS

Descriptive characteristics

More than 150 healthcare facilities and pharmacies were contacted to measure the availability of modern contraception methods in the five health networks. Table 1 presents the overall number of pharmacies and PHC facilities contacted during the fieldwork. The response rate was 100% in all five networks, except for Sisian, where two pharmacies refused to participate in the survey and two pharmacies refused to provide prices of modern contraceptives. The high response rate and insignificant differences between the HNs suggest that the study findings could be generalized country-wide.

| Health Network | Pharmacies | MA/HCs | HPs | PCs (WCC) | Total |
|----------------|------------|-----------|-----------|-----------|------------|
| Armavir | 21 | 20 | 12 | 1 | 54 |
| Sisian | 9 | 7 | 12 | 1 | 29 |
| Talin | 7 | 4 | 18 | 1 | 30 |
| Vayk | 5 | 1 | 8 | 1 | 15 |
| Vedi | 8 | 8 | 10 | 1 | 27 |
| Total | 50 | 40 | 60 | 5 | 155 |

*The sample included all pharmacies, MA/HCs, PCs in the health network as well as 50-100% of Health Posts depending on the network

The location of public healthcare facilities is currently regulated by the MOH with ambulatories, health centers, and health posts located only in villages and polyclinics located only in semi-rural areas – regional towns. However, the distribution of private pharmacies is sporadic – three out of four pharmacies are currently located in semi-rural areas and only a quarter of them in rural settlements. Furthermore, the location of pharmacies is not consistent across all HNs. Whereas 53% of pharmacies are located in rural areas within the Talin HN, no rural pharmacies exist in the Vayk HN although the far-to-reach mountainous areas of Vayots Dzor marz call for a more flexible and even distribution of pharmacies (Table 2). The difference between the semi-rural and rural distribution of pharmacies is related to the demand of pharmaceuticals: pharmaceutical demand depends on the population size of villages (rural communities in Armavir and Vedi health networks are larger), proximity to the regional town, overall road conditions and passability during winter time, the general economical state of each network and its rural communities, and incentives and motivations-driven private sector planning. Private sector looks at a variety of different factors, including socio-economic status of the population, market maturity and political environment before it translates into a market opportunity.

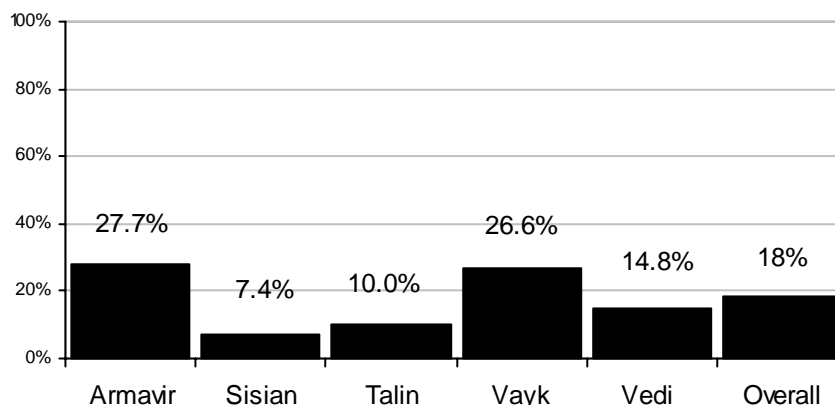
| Health Network | Semirural | | Rural | | Total n |
|----------------|-----------|------------|-----------|------------|-----------|
| | n | % | n | % | |
| Armavir | 17 | 81% | 4 | 19% | 21 |
| Sisian | 5 | 71% | 2 | 29% | 7 |
| Talin | 4 | 57% | 3 | 43% | 7 |
| Vayk | 5 | 100% | 0 | 0% | 5 |
| Vedi | 5 | 63% | 3 | 37% | 8 |
| Total | 36 | 75% | 12 | 25% | 48 |

Availability

Overall availability of contraceptive commodities was measured through availability of at least three modern methods of contraception (later referred to as the [appropriate] method mix). This allows women to choose the most preferable and appropriate method based on individual preferences and circumstances.

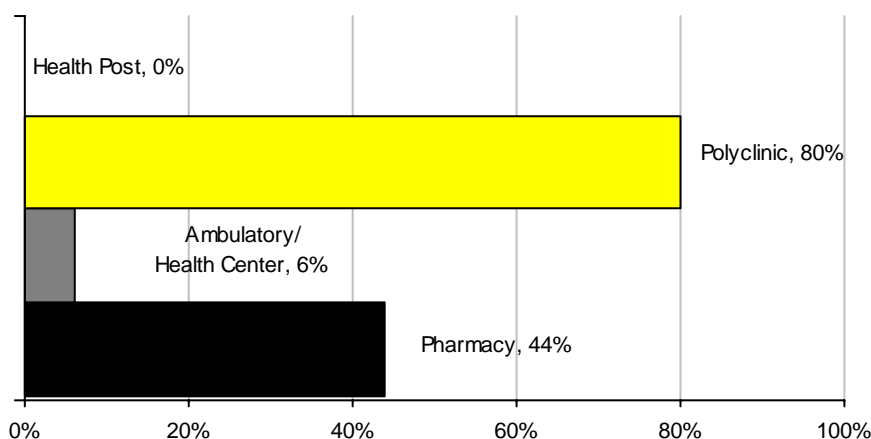
Throughout the five HNs, only 28 out of 153 facilities (18%) participating in the survey had the appropriate method mix available. The Armavir HN had the highest availability at 28% and Sisian the lowest at 7% (Figure 3).

Figure 3. Availability of Method Mix by Network



Overall, 44% of all surveyed pharmacies, 80% of polyclinics, and 6% of ambulatories and health centers had the appropriate method mix available for sale or free of charge. No methods of family planning were available at rural health posts (Figure 4).

Figure 4. Availability of Method Mix by Facility Types



Out of 48 pharmacies surveyed in all five networks, less than half had appropriate method mix available for sale. Method mix availability in pharmacies was the highest in Armavir (62%) and Vayk (60%), followed by Vedi (38%), Sisian (29%) and Talin (14%). The situation is significantly worse in

the rural PHC facilities where contraceptive commodities are available free of charge. Only 6% of ambulatories/health centers had the appropriate method mix leaving 94% without any methods of family planning available. A more detailed analysis indicates that out of a total 40 ambulatories and health centers surveyed in five health networks, only two ambulatories (one in Armavir and one in Talin) offered their clients a selection of family planning methods. All other ambulatories and health centers in the Talin, Armavir, Sisian, Vedi and Vayk HNs did not have any contraceptive commodities available.

Four out of five polyclinics surveyed had the method mix available, which is important because polyclinics are healthcare facilities where both rural and semi-urban patients are most likely to come for family planning services.

Table 3 provides detailed information on the availability of the method mix and overall lack of contraceptive commodities disaggregated by facility type within each HN.

While overall availability of the appropriate method mix is relatively low in all types of facilities either for sale or free distribution, pharmacies in general provided a better assortment of contraceptive commodities than other types of facilities (Table 4).

Pharmacies had more brand names for each particular modern method of contraception than other facilities, especially for pills ranging from 6 to 11 brand names and for condoms ranging from 20 to 27 brand names.

Eager to make a profit, pharmacies often sell birth control pills without a prescription, whereas according to MOH patients should only receive contraceptive pills with a prescription from an obstetrician-gynecologist or a family doctor. Pharmacies rarely carry IUDs although four different brands of IUDs are registered and approved for sale in Armenia. IUDs require a prescription and insertion by an obstetrician-gynecologist; and can be purchased at the pharmacy or received free of charge at the primary healthcare facility.

Ambulatories, health centers and polyclinics only had one brand name for each method available. Recent changes in the expected job functions for family doctors at medical ambulatories allow them to provide family planning counseling as well as prescribe or dispense birth control pills free of charge if available.

Currently polyclinics were family planning rooms are located are considered the main source for family planning services and subsidized contraceptive commodities in Armenia. Results of the survey indicate that although the method mix was available in all but one polyclinic, IUDs were only found in two out of five polyclinics surveyed.

Health posts are staffed only by a community nurse and do not have any contraceptive commodities available. According to the community nurse's job description, they are not allowed to prescribe any contraceptives or distribute them (including condoms). However, the community nurses' scope of practice allows them to provide family planning information and refer patients to ambulatories or polyclinics where a physician (family doctor or obstetrician/gynecologist) can prescribe/dispense contraceptives. In addition, de facto community nurses are allowed to dispense condoms, given they are available at the facility, although this is not explicitly stated in their job description.

Table 3: Availability of contraceptive commodities

| Health network/ Facility | | No methods | ≥ 3 methods Method mix |
|--------------------------|--|-------------|------------------------|
| Armavir | Pharmacy (n=21) | 5% | 62% |
| | Polyclinic (n=1) | 0% | 100% |
| | Ambulatory/Health Center* (n=20) | 95% | 5% |
| | Health Post (n=12) | 100% | 0% |
| Sisian | Pharmacy (n=7) | 0% | 29% |
| | Polyclinic (n=1) | 100% | 0% |
| | Ambulatory/Health Center (n=7) | 100% | 0% |
| Talin | Health Post (n=12) | 100% | 0% |
| | Pharmacy (n=7) | 0% | 14% |
| | Polyclinic (n=1) | 0% | 100% |
| | Ambulatory/Health Center* (n=4) | 75% | 25% |
| Vayk | Health Post (n=18) | 100% | 0% |
| | Pharmacy (n=5) | 0% | 60% |
| | Polyclinic (n=1) | 0% | 100% |
| | MA/HC (n=1) | 100% | 0% |
| Vedi | Health Post (n=8) | 100% | 0% |
| | Pharmacy (n=8) | 0% | 38% |
| | Polyclinic (n=1) | 0% | 100% |
| | Ambulatory/Health Center (n=8) | 100% | 0% |
| Overall | Health Post (n=10) | 100% | 0% |
| | <i>Pharmacy (n=48)</i> | <i>0%</i> | <i>44%</i> |
| | <i>Polyclinic (n=5)</i> | <i>20%</i> | <i>80%</i> |
| | <i>Ambulatory/Health Center (n=40)</i> | <i>94%</i> | <i>6%</i> |
| | <i>Health Post (n=60)</i> | <i>100%</i> | <i>0%</i> |

* In Armavir and Talin networks contraceptive commodities were available only in Health Centers, not in Ambulatories

| Health network/Facility | | Pills | EC | Spermicides | IUD | Condom |
|-------------------------|--------------------------|-------|----|-------------|-----|--------|
| Armavir | Pharmacy | 11 | 1 | 5 | 0 | 27 |
| | Polyclinic | 1 | 0 | 1 | 0 | 1 |
| | Ambulatory/health center | 1 | 1 | 1 | 1 | 1 |
| | Health post | 0 | 0 | 0 | 0 | 0 |
| Sisian | Pharmacy | 9 | 1 | 3 | 0 | 23 |
| | Polyclinic | 0 | 0 | 0 | 0 | 0 |
| | Ambulatory/health center | 0 | 0 | 0 | 0 | 0 |
| | Health post | 0 | 0 | 0 | 0 | 0 |
| Talin | Pharmacy | 6 | 0 | 0 | 1 | 20 |
| | Polyclinic | 3 | 1 | 0 | 1 | 1 |
| | Ambulatory/health center | 1 | 0 | 1 | 0 | 1 |
| | Health post | 0 | 0 | 0 | 0 | 0 |
| Vayk | Pharmacy | 8 | 2 | 2 | 1 | 25 |
| | Polyclinic | 2 | 0 | 1 | 1 | 1 |
| | Ambulatory/health center | 0 | 0 | 0 | 0 | 0 |
| | Health post | 0 | 0 | 0 | 0 | 0 |
| Vedi | Pharmacy | 8 | 1 | 3 | 0 | 20 |
| | Polyclinic | 0 | 1 | 1 | 0 | 2 |
| | Ambulatory/health center | 0 | 0 | 0 | 0 | 0 |
| | Health post | 0 | 0 | 0 | 0 | 0 |

Health Networks). The modern method users had to travel to the regional town in order to obtain their preferred modern methods and/or get family planning counseling by a healthcare provider. A previous study conducted in 1997 in Vietnam revealed that a woman, who lives within one kilometer from the source of a contraceptive method, has a three times higher probability of using that method as compared to a woman who lives farther than one kilometer.¹⁷ The distance from villages to the regional town was uniformly farther than one kilometer in all HN. However, this issue needs more research and exploration to account for different components of accessibility such as availability of public transportation from rural villages, transportation cost and the road conditions among other things.

Method mix availability was also higher in the private (pharmacies) versus public sector (polyclinics and ambulatories/health centers). In all five HNs on average 46% of all private facilities and 6% of all public facilities had the method mix available. Availability of at least three methods in the private sector ranged from 14% in Talin to 62% in Armavir, whereas in the public sector it ranged between 0% in Sisian to 10% in Vayk.

Currently, private sector facilities (pharmacies) are the main source of modern methods of

Facilities having the appropriate contraceptive method mix available were unevenly distributed in semi-rural and rural areas. Semi-rural facilities included all pharmacies and polyclinics in towns and rural facilities included pharmacies, ambulatories/health centers and health posts located in rural areas. **Throughout the five HN, 61% of facilities located in semi-rural areas had the appropriate method mix compared to only 3% in rural areas.** It ranged from 33% in Sisian to 72% in Armavir for semi-rural areas, and from 0% in Sisian, Vayk and Vedi to 6% in Armavir for rural areas (Table 5).

While the availability of the method mix was high in semi-rural facilities, the population in rural settlements had significantly lower access to contraceptive commodities (Attachment 2. Maps of Availability of Contraceptive Methods in

| Network | Semi-rural ¹ | Rural ² |
|----------------|-------------------------|--------------------|
| Armavir | 72% | 6% |
| Sisian | 33% | 0% |
| Talin | 40% | 4% |
| Vayk | 67% | 0% |
| Vedi | 67% | 0% |
| Overall | 61% | 3% |

¹Pharmacies and polyclinics in regional-level towns
²Pharmacies and MAs/HCs in rural villages

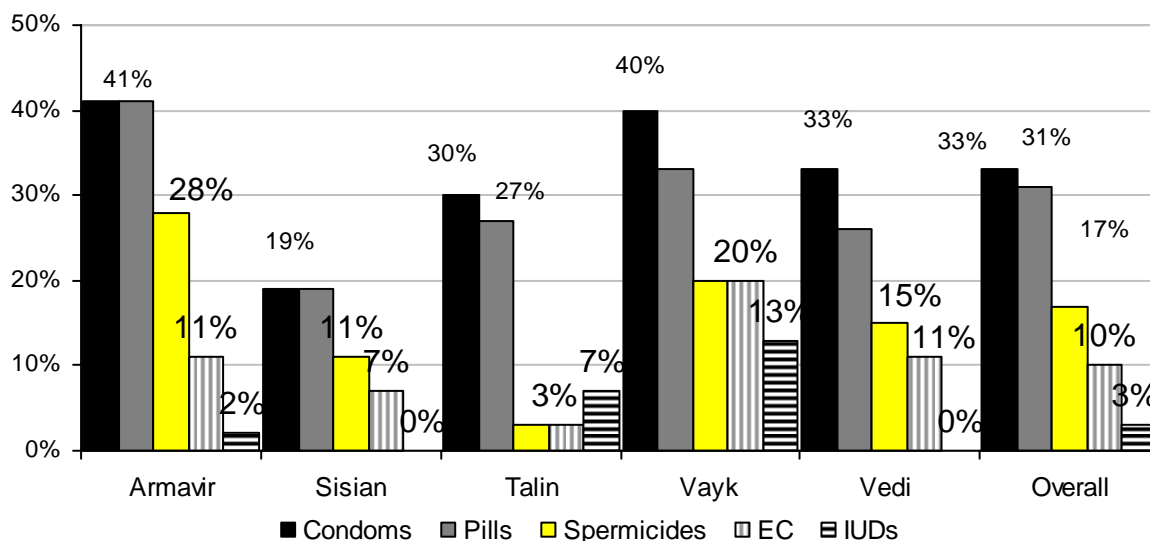
contraception in Armenia. However, out of 900-1100 pharmacies existing in Armenia, an estimated 70-80% are located in the capital city of Yerevan.¹⁸ Even though the method mix availability was not very high in pharmacies, the situation was substantially worse in the public sector that provides free contraceptive commodities, which is especially important for people from the lower socioeconomic stratum. Limited availability in the public sector affects primarily the rural population. Not only are there fewer pharmacies located in villages where people can buy contraceptives, the income of the rural population is much lower than that of the semirural population.

Findings of this study are comparable to the 2005 ADHS that reported the difference in the contraceptive availability in the private versus public sector. The availability of modern methods of contraceptive commodities significantly declined in the public sector in 2005 compared to 2000. This trend was explained by the decline of contraceptive donations from different NGOs, donors and/or individuals.¹² Likewise, this study revealed that all public facilities had the same brand names of contraceptive commodities, except for one facility where two brands of condoms were available. Currently UNFPA is the only source of contraceptive commodities in public facilities. During informal conversations with healthcare providers in several public facilities, they mentioned previously having a better assortment of contraceptive commodities provided by different organizations.

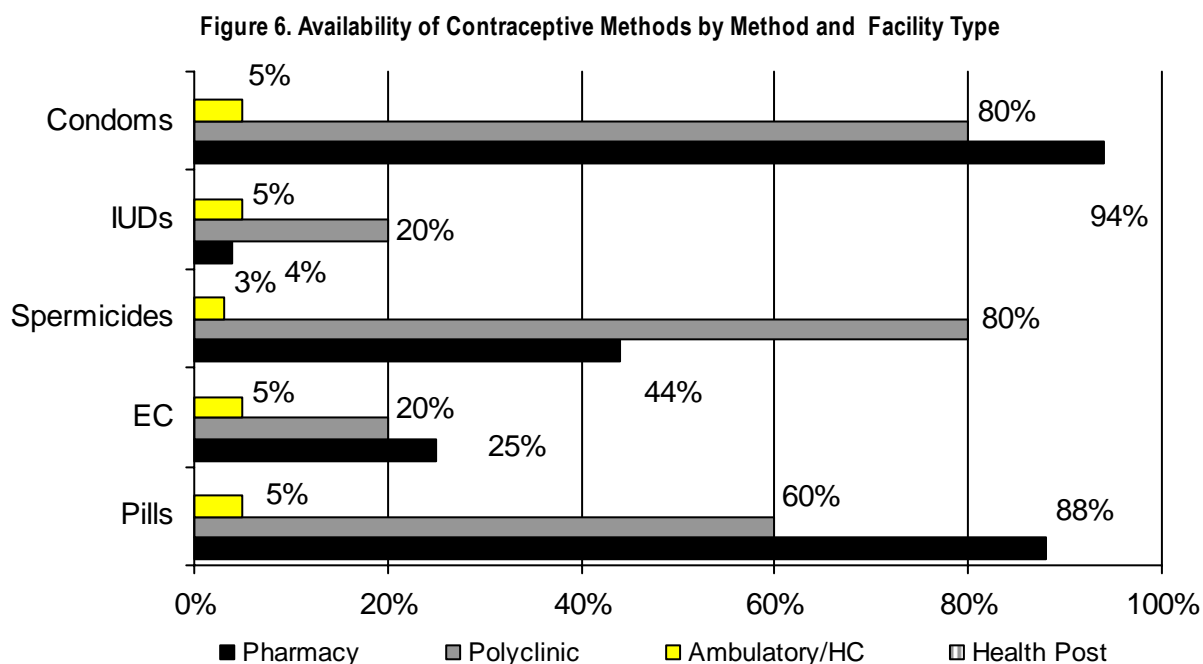
Availability of modern methods of contraception in the public sector is critical for the low socioeconomic status population. As a comparison, in the United States nearly all publicly funded family planning clinics offer pills, injectables and condoms, 75% offer the patch, and 80% offer emergency contraceptives.¹⁹ In countries, where modern methods of contraception are largely available in the public sector, mainly less-educated, low-income, young, minority, unmarried women are utilizing these services.^{20,21}

Given the overall low proportion of facilities with the method mix available, the study also looked at the availability of each modern method of contraceptive (Figure 5). Condoms had the highest availability in all networks (33%), followed by hormonal contraceptive pills (31%). The availability of spermicides (17%), emergency contraceptives (10%), and IUDs (3%) was lower compared to the first two types.

Figure 5. Availability of Contraceptive Methods by Method Type and Network



Condoms, emergency contraception pills and hormonal pills were more available in pharmacies; whereas, IUDs and spermicides were more likely to be found and distributed at polyclinics (Figure 6).



Overall availability of individual methods of contraception at pharmacies and polyclinics located in semi-rural areas was satisfactory. However, the study revealed that the rural population had limited access to modern methods of contraception at both PHC facilities (ambulatories/health centers and health posts) and rural pharmacies. There is very little accessibility of emergency contraception pills throughout all types of facilities, but in particular in rural areas.

Affordability

The study analyzed the estimated average individual expenses associated with the annual use of contraceptive supplies. The data collectors only reviewed contraceptive commodity retail sales prices at pharmacies, since family planning services, including counseling and contraceptives, are provided free of charge to the population at public PHC facilities as part of the program supported by UNFPA and implemented by the Government of Armenia. Nevertheless, 42% of current contraceptive users obtain their contraception from private facilities, mostly pharmacies.¹²

Unit price for each method of contraception fluctuated between HN due to the ‘flexibility’ in setting retail sales prices at pharmacies. This led to differences in the average annual costs of contraceptives. The study calculated the average direct costs associated with the use of modern methods of contraception separately for the four most commonly used and available methods: hormonal pills, spermicides, IUDs and condoms. The study took into account the average use for each method during a one-year period. Indirect expenses to family planning patients, including mandatory laboratory tests and exams for pills and IUDs, insertion fees for IUDs, travel expenses, lost wages and “informal” thank you payments to healthcare providers, etc. were not included in the calculation.

For estimation purposes, the study assumed that an individual has sexual intercourse an average of two times per week. This average entered into the average number of spermicides and condoms needed for a one-year period if used with each intercourse:

$$2 \text{ sexual intercourses a week } \times 52 \text{ weeks per year } = 104 \text{ sexual intercourses per year.}$$

As all hormonal pills come in a pack of either 28 pills or 21 pills with a 7 days break, it was also assumed that women use 13 packs of hormonal pills per year:

$$365 \text{ days a year } \div 28 \text{ pill per pack } = 13 \text{ packs a year.}$$

Although an IUD can stay in situ for up to 12 years, the amortized cost of IUD use was calculated assuming that an IUD can offer contraceptive protection over a five year period.

The cost analysis indicated IUD as the cheapest method of modern contraception and spermicides as the most expensive, followed by pills and condoms universally for all five HNs (Table 6).

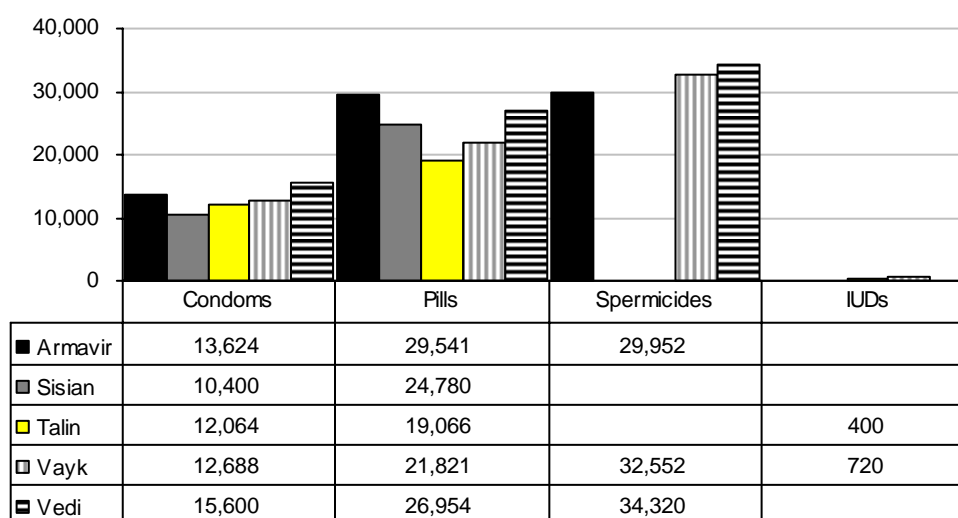
| Method of Contraception | Pills | Spermicides | IUDs ¹ | Condoms |
|-------------------------|------------|-------------|-------------------|------------|
| Networks Average | 28,910 AMD | 38,077 AMD | 560 AMD | 13,380 AMD |

¹Cost of IUD is amortized over a 5-year period

Annual costs for pills, IUDs, condoms and spermicides did not vary significantly between different HNs (Figure 7).

On average, the cost of using spermicides for a one year period constitutes 4% of an annual family income, followed by hormonal pills at 3.1%, condoms at 1.6%, and IUDs at 0.07% (Table 7). Family planning social marketing programs suggest a “rule-of-thumb measure-

Figure 7. Average Annual Costs of Contraceptive Commodities by Method Type and Network in Armenian Drams (AMD)



ment” such as “contraceptive commodities costs should not exceed 1% of household expenditures or income”, as it has been documented that willingness to pay for contraceptives sharply decreases when the costs reach 1% of the annual income.^{20, 21,22,23} Caution should be used when interpreting data on average income because studies show that reported expenditures are too low to support the reported household asset structure. Rather one should use the government-endorsed poverty line reported at 21,555 AMD in year 2006.^{24, 25} The actual income in health networks participating in the study might be lower because of the high unemployment rates in rural areas.

Table 7: Annual cost of using a contraceptive method as a percentage of average yearly wages by marzes

| Network | Marz | Annual wages ¹ | Pills | Spermicides | IUDs | Condoms | % of population in lowest and second quintiles ² |
|----------------|-------------|---------------------------|-------------|-------------|--------------|-------------|---|
| Armavir | Armavir | 795,120 AMD | 3.7% | 3.8% | NA | 1.7% | 67% |
| Sisian | Syunik | 1,100,472 AMD | 2.3% | NA | NA | 0.9% | 30% |
| Talin | Aragatsotn | 695,400 AMD | 2.7% | NA | 0.06% | 1.7% | 80.6% |
| Vayk | Vayots Dzor | 679,248 AMD | 3.2% | 4.8% | 0.1% | 1.9% | 69.7% |
| Vedi | Ararat | 729,180 AMD | 3.7% | 4.7% | NA | 2.1% | 65.6% |
| <i>Average</i> | | <i>799,884 AMD</i> | <i>3.1%</i> | <i>4.0%</i> | <i>0.07%</i> | <i>1.6%</i> | |

¹Source: National Statistical Service of the Republic of Armenia
²Source: Armenia DHS 2005

Another important determinant to consider when analyzing affordability of contraceptive commodities is the proportion of population in the lowest and second income quintiles. Based on the information received from the 2005 ADHS, more than half of the population in Armavir, Aragatsotn, Vayots Dzor and Ararat marzes are recorded in the lowest or second lowest wealth quintiles, and over three-fourths of the rural population in general are in the lowest and second quintiles. This coincides with the data showing that the rural population residing in four out of five HNs cannot afford contraceptive commodities at regular retail prices in pharmacies (Table 7). It also confirms recommendations made by the 2002 family planning market segmentation analysis to continue providing contraceptive commodities through the public sector for the poorest segments of the population.²³

Consumption

Under the terms of this study, pharmacists or healthcare providers were asked to report on sales and/or free distribution of contraceptive commodities during a one-month period. The study used number of available packages/units of contraceptives as an indicator of the available stock at the time of the survey. Overall, in all five HNs an average of 23.1 condoms, 2.4 IUDs, 1.1 packs of hormonal pills, 0.6 packs of emergency contraceptives, and 1.2 packs of spermicides were sold or distributed during a one-month period per pharmacy or PHC facility.

Table 8: Average sales/distribution of contraceptive commodities during a one-month period in all facility types

| Network | Pills ¹ | EC ¹ | Spermicides ¹ | IUDs ² | Condoms ² |
|------------------------------|--------------------|-----------------|--------------------------|-------------------|----------------------|
| Armavir | 1.2 | 0.7 | 1.4 | 2.0 | 43.9 |
| Sisian | 0.8 | 0.5 | 0 | 0 | 9.9 |
| Talin | 0.3 | 0.04 | 1.0 | 2.5 | 10.4 |
| Vayk | 0.8 | 0.9 | 0.7 | 2.5 | 10.0 |
| Vedi | 1.7 | 0.1 | 1.7 | 0 | 14.8 |
| Average | 1.1 | 0.6 | 1.2 | 2.4 | 23.1 |
| ¹ Number of packs | | | | | |
| ² Number of units | | | | | |

Average monthly sales/distribution of hormonal pills ranged from 0.3 packs in Talin to 1.7 packs in Vedi. For emergency contraception pills, an average number of packs sold or offered to family planning clients free of charge ranged between 0.04 in Talin and 0.9 in Vayk. For spermicides, the average number of packs varied from 0 in Sisian to 1.7 in Vedi. Although IUD was

the least available method of contraception in all HNs, it ranked second in its consumption with a monthly average of 2 IUDs sold/distributed in Armavir and 2.5 in Talin and Vayk HNs. The average number of condoms consumed in a one-month period ranged from 9.9 in Sisian to 43.9 in Armavir.

An average of 31.4 condoms, 11.8 IUDs, 4.7 packs of spermicides, 1.8 packs of emergency contraception pills, and 1.2 packs of hormonal pills were in stock at surveyed pharmacies and PHC facilities (Table 9). The average number of packs of hormonal pills available in stock ranged between 0.8 in Talin and 1.5 in the Vedi. Availability of emergency contraception pills in stock ranged from 1 pack in Vedi to 9 packs in Talin. The

Table 9: Average stock of contraceptive commodities at the time of the survey in all facility types

| Network | Pills ¹ | EC ¹ | Spermicides ¹ | IUDs ² | Condoms ² |
|-----------------------------------|--------------------|-----------------|--------------------------|-------------------|----------------------|
| Armavir | 1.2 | 1.1 | 5.2 | 2.0 | 23.3 |
| Sisian | 1.1 | 1.5 | 3.5 | 0 | 16.3 |
| Talin | 0.8 | 9.0 | 1.0 | 15.5 | 5.1 |
| Vayk | 1.3 | 2.0 | 7.2 | 13 | 8.5 |
| Vedi | 1.5 | 1.0 | 2.7 | 0 | 94.7 |
| Average | 1.2 | 1.8 | 4.7 | 11.8 | 31.4 |
| ¹ Mean number of packs | | | | | |
| ² Mean number of units | | | | | |

average number of spermicidal products available in stock ranged between 1 in Talin and 7.2 in Vayk. IUDs were in stock in three out of five networks with an average low of 2 in Armavir and 15.5, the high, in Talin network. The minimum average number of condoms was in Talin at 5.1 and the maximum in Vedi at 94.7 condoms.

4. CONCLUSIONS AND RECOMMENDATIONS

Although knowledge of family planning methods in Armenia is high and 53.1% of married women are currently using a method of contraception, almost half of all pregnancies end up in abortion, with 43% of them attributable to the incorrect and inconsistent use of traditional methods of contraception, including withdrawal (33%) and periodic abstinence (6%).¹²

Women in Armenia rely on traditional methods of contraception over modern more effective methods: 59% of women name it as their husbands/partners' choice, 47% fear side effects of modern methods, 37% are concerned with the cost of modern methods, and 26% of women believe modern contraceptives are difficult to find.¹² Although modern contraceptive methods are available at select public healthcare facilities free of charge as part of the national program supported by UNFPA and implemented by the Government of Armenia, 42% of users obtain their methods of contraception from the private sector, mostly in pharmacies.¹² The annual cost to individuals of using modern contraceptive supplies purchased in pharmacies is high (13,380 – 38,077 AMD) for all methods but the IUDs and exceeds the cost of one abortion (8,000 - 15,000 AMD).

Overall, this study has shown a greater need for more effective family planning services, including better financial and geographic access to modern methods of contraception in rural areas.

Financial Access

Overall contraceptive supplies in the private sector are expensive and unaffordable to the vast majority of the rural and semi-rural population. With the exception of the IUD, the financial costs to the patient of using contraception over the course of a year was significantly higher than the cost of an abortion and constituted more than 1% of the annual income.

Recommendations:

- 1) Develop public-private family planning partnership and synergies between RA MOH programs, international agencies, donor activities, and private sector investment in order to determine the optimal public-private contribution mix for the Republic of Armenia.
- 2) Develop a contraceptive security strategy for the rural areas and combine health education efforts, taking into account both economical and geographical conditions in Armenia. The contraceptive security strategy will improve the private sector's ability to offer a variety of modern contraceptive methods at a range of prices to specific segments of the population who can pay for them, while helping the public sector to better target free contraceptive commodities to the people who need them most.
- 3) Strengthen the stewardship role of the Government of Armenia (MOH) in ensuring a favorable environment for the private sector in the provision of contraceptive supplies and regulating overall family planning service delivery.
- 4) Consider reducing the price of contraceptive commodities (e.g. oral contraceptives) to make them more affordable to the general population by bringing to the market less expensive generic products.

Geographic Access

The study revealed a critical need for contraceptive commodities in rural communities where no pharmacies exist and PHC services are provided at health posts or ambulatories. Patients have to travel a great distance to receive family planning services and obtain/purchase contraceptive commodities. Overall, pharmacies provided a better choice of modern contraceptives than public PHC facilities where methods are available free of charge.

Recommendations:

- 1) Explore opportunities of encouraging private pharmacies to consider opening pharmaceutical kiosks in rural communities and to include contraceptive commodities in all their rural retail outlets.
- 2) Provide refresher training for pharmacists, especially pharmacists or "pharmaceutical provisors" in rural areas, in modern contraceptive technologies and basic contraceptive counseling and information-giving.
- 3) Better equip community nurses with necessary knowledge and skills to provide basic family planning information, including information on modern methods of contraception available for sale and/or free distribution, and to make referrals to appropriate healthcare facilities/providers.

- 4) Explore the feasibility of increasing access to contraceptive commodities in rural areas by making contraceptive commodities available at health centers and ambulatories. Currently UNFPA plans to purchase another round of contraceptive commodities and make them available for the most vulnerable Armenian population. 10% contribution for the purchase of contraceptive pills and IUDs is expected to come from the Government of Armenia as a minimum requirement for UNFPA procurement. Future distribution plan of contraceptive commodities shall not be limited to the family planning rooms established throughout the country.
- 5) Provide refresher training for family doctors and family nurses working at ambulatories in family planning counseling.

Contraceptive Supplies Access

While the availability of condoms and hormonal pills was the highest in all types of facilities, IUDs, the preferred method for almost 10% of contraceptive users were difficult to find in both the private and public sectors.

Emergency contraception pills can reduce the risk of unintended pregnancy by at least 75% if taken within 72 hours of intercourse. International data also demonstrate that emergency contraception has played a significant role in reducing the abortion rate in the United States: as many as 51,000 abortions were averted in the United States in 2000 by the use of emergency contraceptive pills alone. In Armenia, emergency contraception is the least-known and the most underused family planning method among providers and patients. The rural community needs better access to emergency contraception through rural ambulatories, health centers and pharmacies.

Sexually transmitted infections have been on the rise in Armenia for the past several decades and the number of people living with HIV/AIDS in the neighboring countries of Russia and Ukraine has grown significantly. If the HIV/AIDS pandemic spreads to Armenia, the high cost of treatment and education activities can affect the health system's ability to deal with other health problems, leading to a steeper decline in general health than that caused by the spread of HIV/AIDS alone. Thus it is critical to promote condom use, and make them available in both rural and urban areas.

Recommendations:

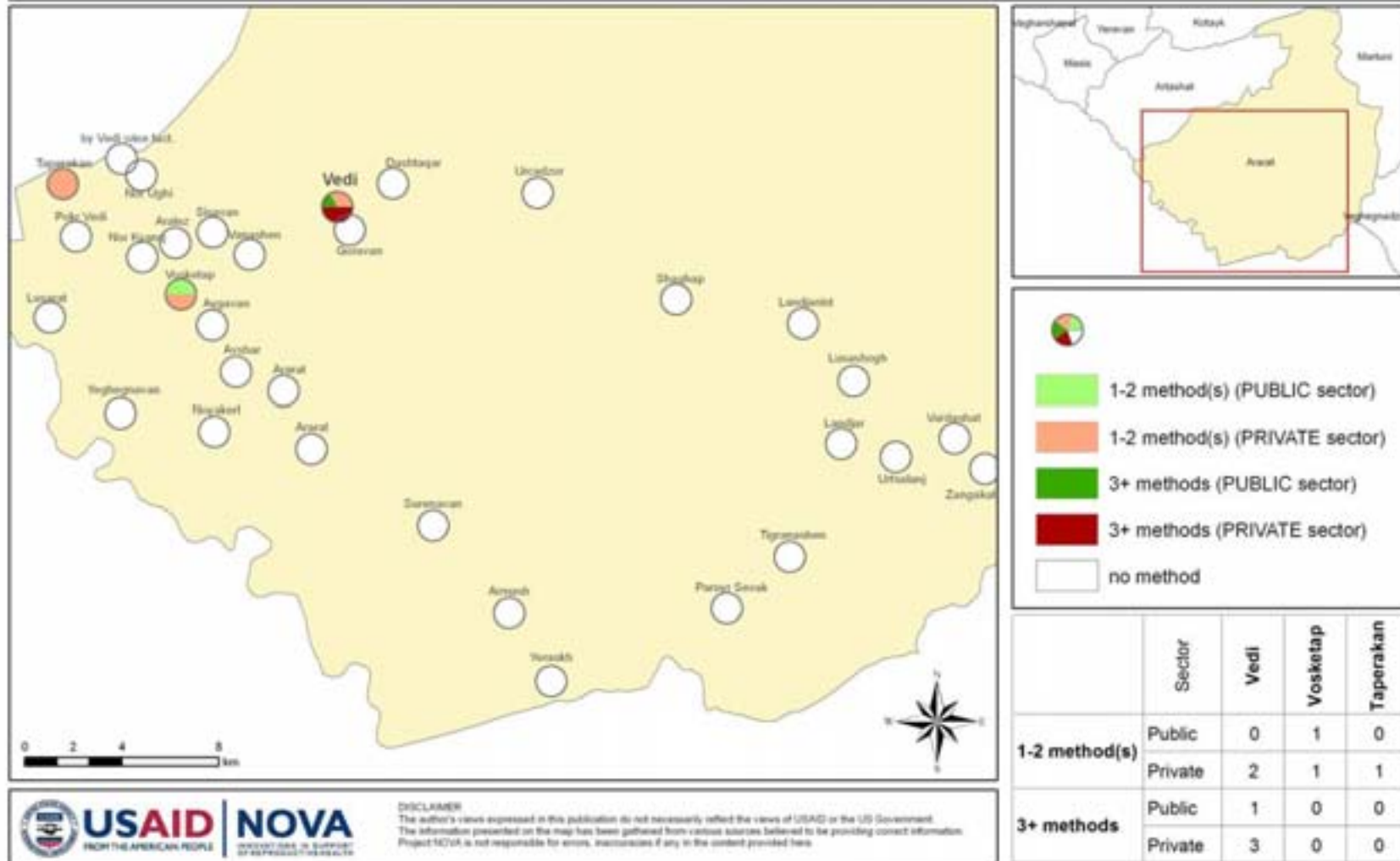
- 1) Make emergency contraception, IUDs and condoms more accessible in rural areas in both the private and public sector to improve method mix for rural women.
- 2) Through variety of channels raise overall public awareness of the availability and use of emergency contraception, and prevention of sexually transmitted infections.

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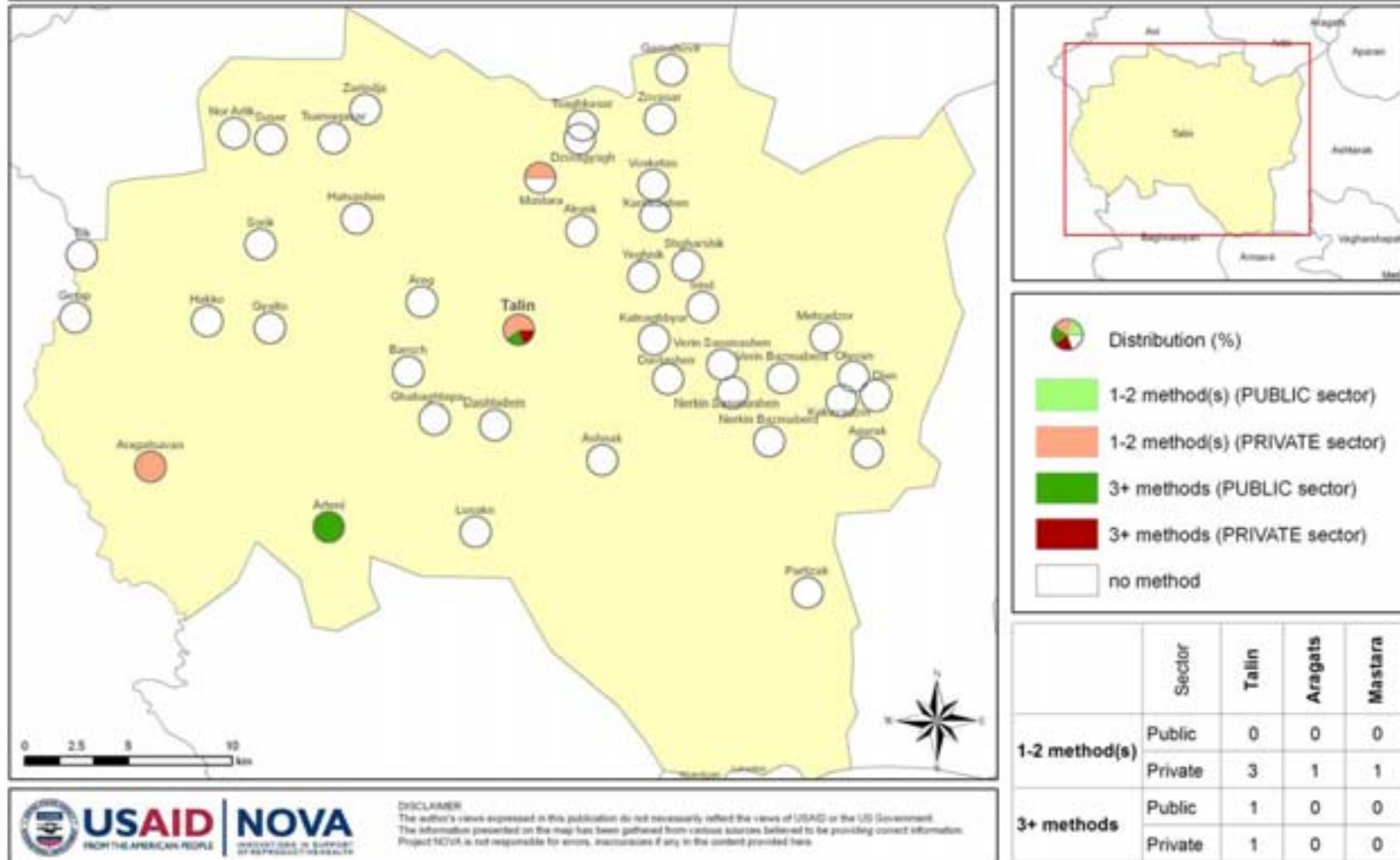
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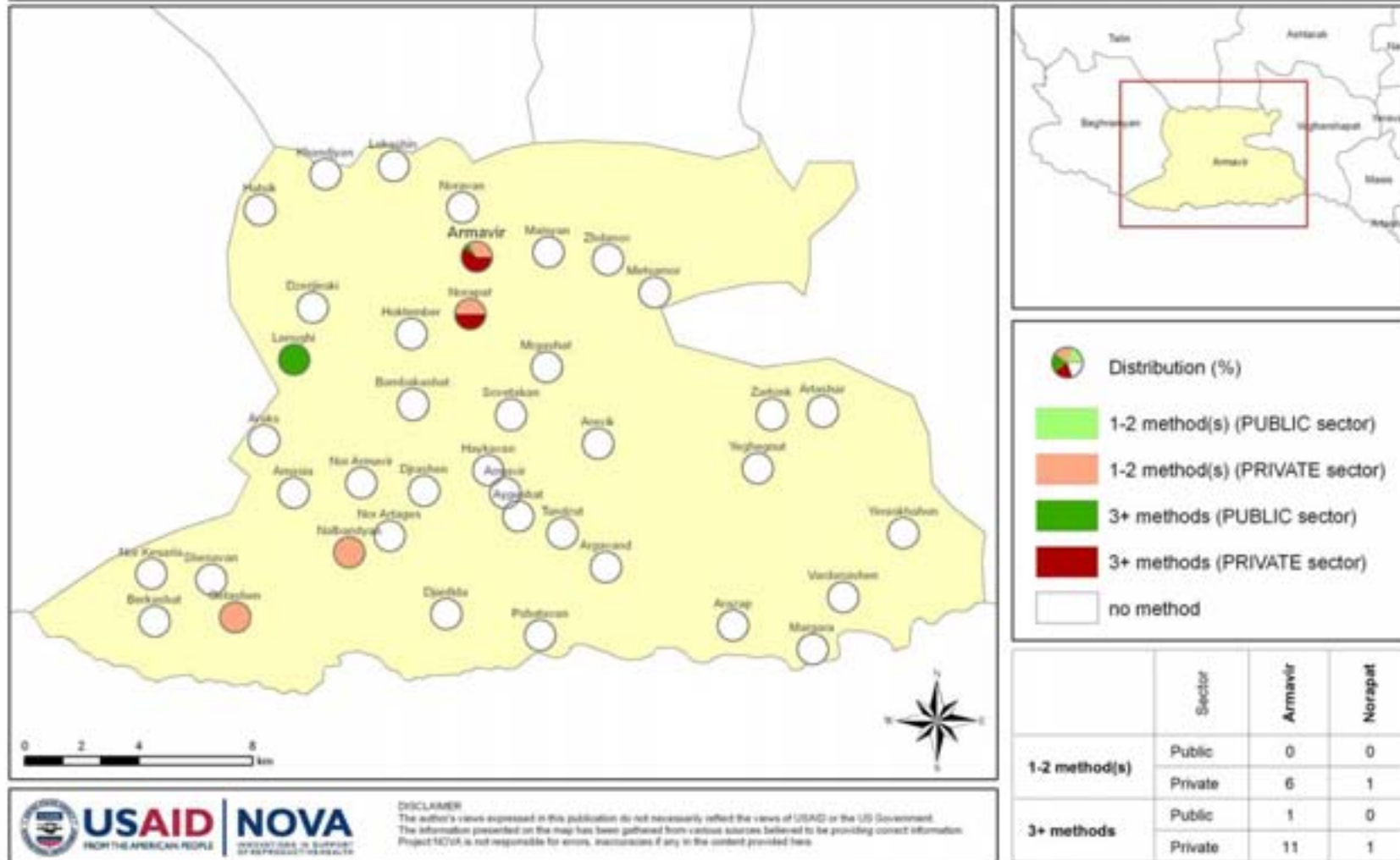
Availability of Modern Contraceptive Methods at Pharmacies and PHC Facilities in Ararat Marz Ararat Region



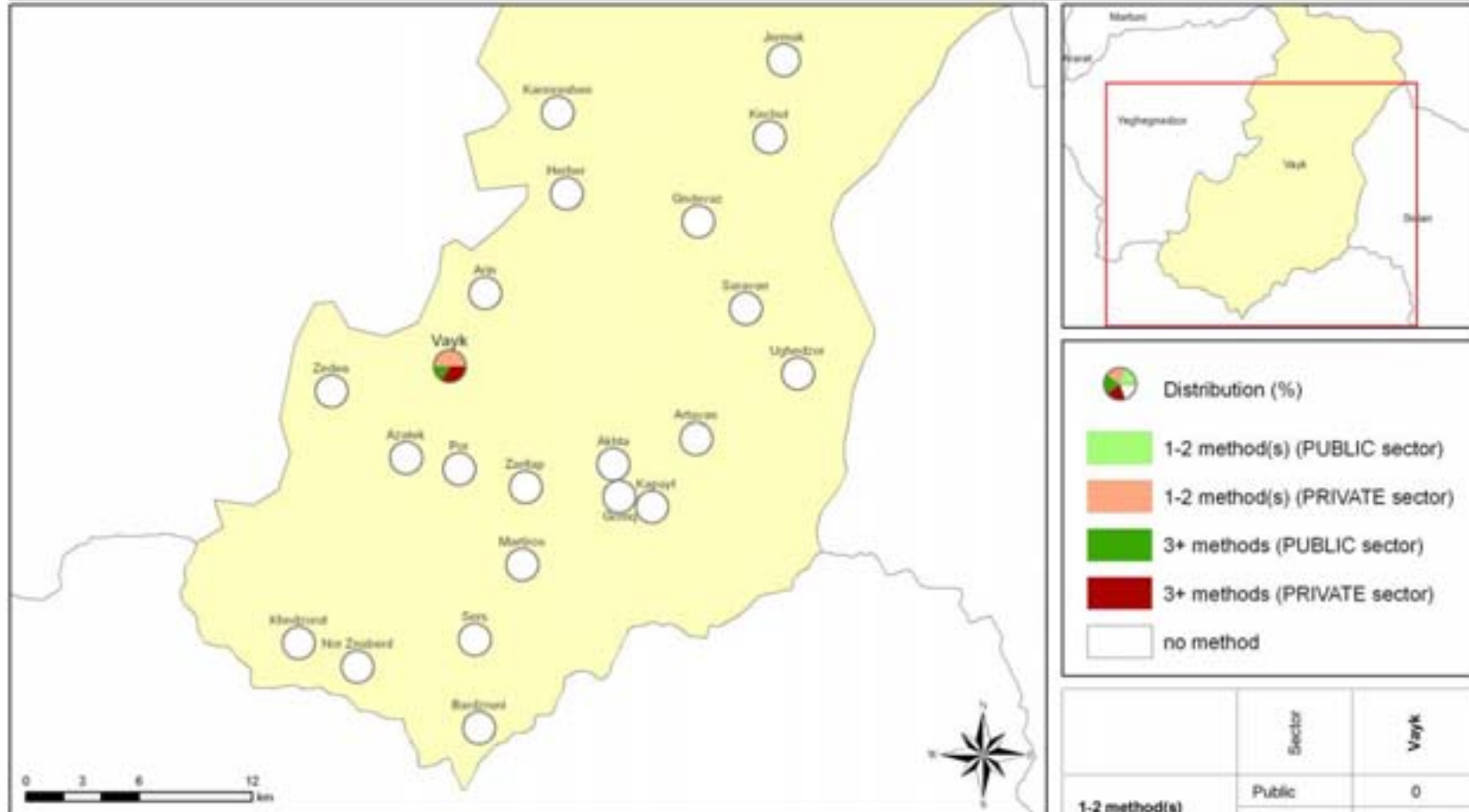
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Availability of Modern Contraceptive Methods at Pharmacies and PHC Facilities in Armavir Marz Armavir Region



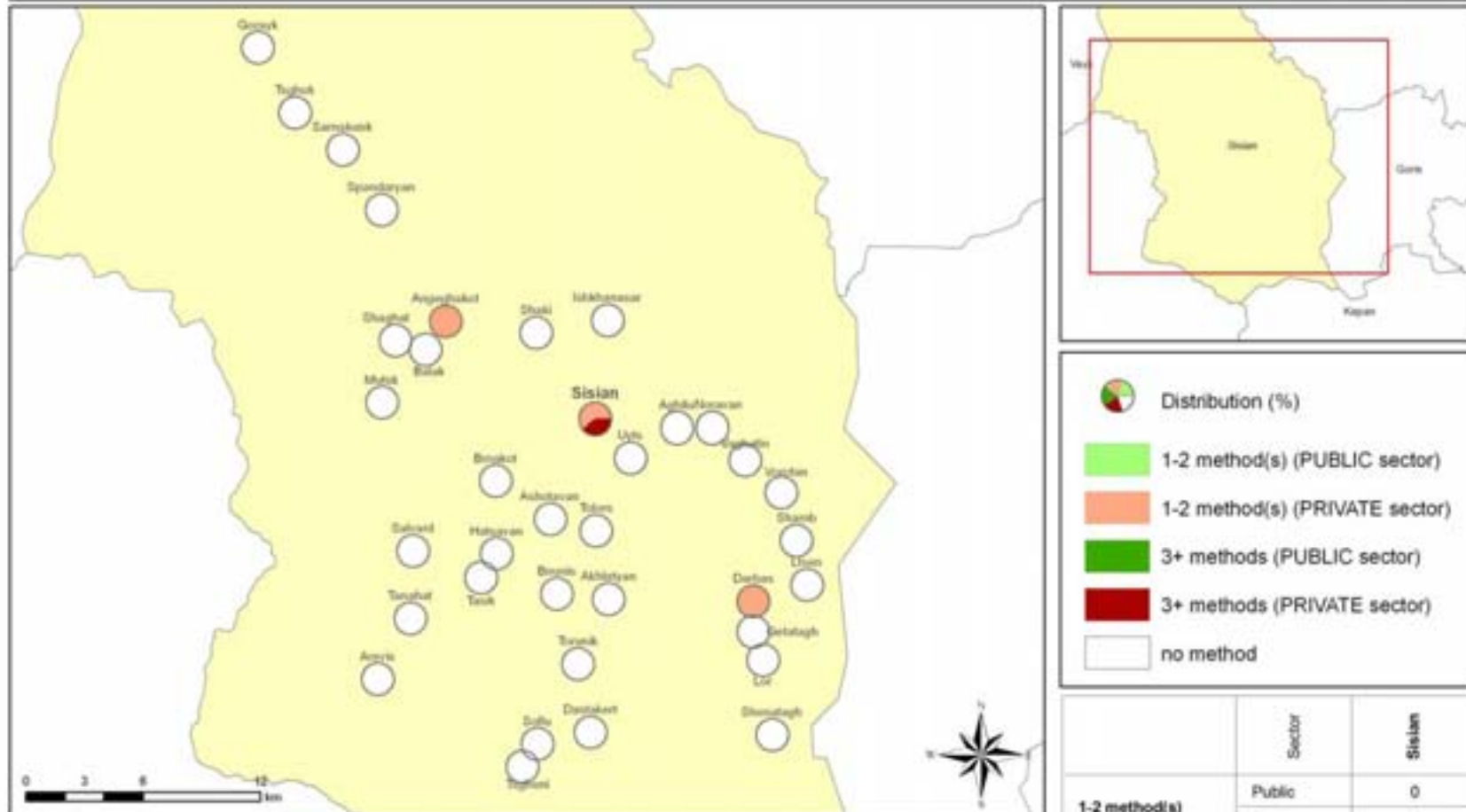
Availability of Modern Contraceptive Methods at Pharmacies and PHC Facilities in Vayotz Dzor Marz Vayk Region



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Availability of Modern Contraceptive Methods at Pharmacies and PHC Facilities in Syunik Marz Sisian Region



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Appendix 3: Data Collection Form

Instrument for measuring availability and affordability of modern methods of contraception in pharmacies and primary health care facilities of five HNs in Armenia

Id number _ _ _ _ _

Start time __ : __

| 1. Hormonal Contraceptives | | | | | | | | | | |
|----------------------------|------------------------|---------|----------------|------------------------------|--------------------------|-------------------|--|----------------------------------|-------------|-------------------------|
| 1. Name of the drug | 2. Producer/ Country | 3. Unit | 4. Dosage | 5. # of subpacks in the pack | 6. # of units in subpack | 7. Price per pack | 8. Price per unit (tab, dragee, ampules, capsules, etc.) | 9. Sales/Usage during last month | | 10. Available resources |
| | | | | | | AMD | AMD | # of packs | # of months | # of packs |
| 1. Depo-Provera | Farmacia/ Italy | amp | 1000mg/6.7ml | 1 | 1 | | | | | |
| 2. Depo-Provera | Farmacia/ Italy | amp | 500mg/3.3ml | 1 | 1 | | | | | |
| 3. Depo-Provera | Farmacia/Italy | amp | 150mg/1ml | 1 | 1 | | | | | |
| 4. Diane 35 | Shering/Germany | dragee | 2mg/0.035mg | 1 | 21 | | | | | |
| 5. Janin | Shering/Germany | dragee | 2mg/0.03mg | 1 | 21 | | | | | |
| 6. Lindinet | Gedeon Richter/Hungary | tab | 0.075mg/0.02mg | 1 | 21 | | | | | |
| 7. Marvelon | Organon/ Netherlands | tab | 0.15mg/0.03mg | 1 | 21 | | | | | |
| 8. Norcolut | Merz/Germany | tab | 5mg | 1 | 20 | | | | | |
| 9. Norplant | Leiras | caps | 36mg | | | | | | | |
| 10. Novinette | Gedeon Richter/Hungary | tab | 0.15mg/0.02mg | 1 | 21 | | | | | |

| 1. Name of the drug | 2. Producer/ Country | 3. Unit | 4. Dosage | 5. # of subpacks in the pack | 6. # of units in subpack | 7. Price per pack | 8. Price per unit (tab, dragee, ampules, capsules, etc.) | 9. Sales/Usage during last month | | 10. Available resources |
|---------------------|---------------------------|---------|----------------|---------------------------------|-----------------------------|----------------------|---|-------------------------------------|-------------|----------------------------|
| | | | | | | AMD | AMD | # of packs | # of months | # of packs |
| 11. Orgametril | Organon/ Netherlands | tab | 0.5mg | 1 | 30 | | | | | |
| 12. Ovidon | Gedeon Richter/Hungary | tab | 0.25mg/0.05mg | 1 | 21 | | | | | |
| 13. Regulon | Gedeon Richter/Hungary | tab | 0.15mg/ 0.03mg | 1 | 21 | | | | | |
| 14. Regulon | Gedeon Richter/Hungary | tab | 0.15mg/ 0.03mg | 3 | 21 | | | | | |
| 15. Rigevidon | Gedeon Richter/Hungary | tab | 0.15mg/0.03mg | 1 | 21+7 | | | | | |
| 16. Rigevidon | Gedeon Richter/Hungary | tab | 0.15mg/0.03mg | 1 | 21 | | | | | |
| 17. Rigevidon | Gedeon Richter/Hungary | tab | 0.15mg/0.03mg | 3 | 21+7 | | | | | |
| 18. Rigevidon | Gedeon Richter/Hungary | tab | 0.15mg/0.03mg | 3 | 21 | | | | | |
| 19. Tri- Regol | Gedeon Richter/Hungary | tab | | 1 | 21 | | | | | |
| 20. Tri-Regol | Gedeon Richter/Hungary | tab | | 3 | 21 | | | | | |
| 21. | | | | | | | | | | |
| 22. | | | | | | | | | | |
| 23. | | | | | | | | | | |

Comments _____

| 2. Emergency Contraceptives | | | | | | | | | |
|-----------------------------|------------------------|---------|-----------|--------------------------|-------------------|--|----------------------------------|-------------|-------------------------|
| 1. Name of the drug | 2. Producer/ Country | 3. Unit | 4. Dosage | 6. # of units in subpack | 7. Price per pack | 8. Price per unit (tab, dragee, ampules, capsules, etc.) | 9. Sales/Usage during last month | | 10. Available resources |
| | | | | | AMD | AMD | # of packs | # of months | # of packs |
| 1. Postinor | Gedeon Richter/Hungary | tablets | 0.75mg | 2 | | | | | |
| 2. Escapel | Gedeon Richter/Hungary | tablets | 1.5mg | 1 | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
| 6. | | | | | | | | | |
| 7. | | | | | | | | | |

Comments _____

| 3. Spermicides | | | | | | | | | |
|---------------------|----------------------|------------------------|-----------|--------------------------|-------------------|--|----------------------------------|-------------|-------------------------|
| 1. Name of the drug | 2. Producer/ Country | 3. Unit | 4. Dosage | 6. # of units in subpack | 7. Price per pack | 8. Price per unit (tab, dragee, ampules, capsules, etc.) | 9. Sales/Usage during last month | | 10. Available resources |
| | | | | | AMD | AMD | # of packs | # of months | # of packs |
| 1. Patentex Oval. | Merz/Germany | vaginal suppository | | 12 | | | | | |
| 2. Farmatex | Innotec/France | vaginal cream | 72g | 1 | | | | | |
| 3. Farmatex | Innotec/France | uni dose vaginal cream | 4.5g | 1 | | | | | |
| 4. Farmatex | Innotec/France | vaginal suppository | | 5 | | | | | |
| 5. Farmatex | Innotec/France | vaginal suppository | | 10 | | | | | |
| 6. Farmatex | Innotec/ France | vaginal soft capsules | | 6 | | | | | |
| 7. Farmatex | Innotec/France | vaginal tablets | 20mg | 12 | | | | | |
| 8. Farmatex | Innotec/France | vaginal tampons | | 2 | | | | | |
| 9. | | | | | | | | | |
| 10. | | | | | | | | | |
| 11. | | | | | | | | | |
| 12. | | | | | | | | | |
| 13. | | | | | | | | | |
| 14. | | | | | | | | | |

Comments _____

| 4. Intrauterine devices | | | | | | | |
|-------------------------|----------------------------------|-----------------------------|-------------------|--|-------------------------------------|-------------|----------------------------|
| 1. Name of the drug | 2. Producer/ Country | 6. # of units in subpack | 7. Price per pack | 8. Price per unit (tab, dragee, ampu- les, capsules, etc.) | 9. Sales/Usage during last month | | 10. Available resources |
| | | | AMD | AMD | # of packs | # of months | # of packs |
| 1. "Nova" | Shering /Germany | 1 | | | | | |
| 2. Copper T380A | | | | | | | |
| 3. Multiload CU 375 | Organon/Netherlands | | | | | | |
| 4. Ortho TCu 380A | Ortho pharmaceuticals/ Canada | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |
| 8. | | | | | | | |
| 9. | | | | | | | |
| 10. | | | | | | | |

Comments _____

| 5. Condoms | | | | | | | |
|-----------------------|-------------------------|-----------------------------|-------------------|--|----------------------------------|-------------|----------------------------|
| 1. Name of the drug | 2. Producer/ Country | 6. # of units in subpack | 7. Price per pack | 8. Price per unit (tab, dragee, ampu- les, capsules, etc.) | 9. Sales/Usage during last month | | 10. Available resources |
| | | | AMD | AMD | # of packs | # of months | # of packs |
| 1. Bamper | Malaysia | | | | | | |
| 2. Billy boy | Mara/Germany | | | | | | |
| 3. Blauzigel HT | Mara/Germany | | | | | | |
| 4. Carex | Carex/Malaysia | | | | | | |
| 5. Control | Control/Spain | | | | | | |
| 6. Durex | Durex/India | | | | | | |
| 7. FAM&C | FAM&C/ China | | | | | | |
| 8. Favorit | Malaysia | | | | | | |
| 9. Fromms | Mara/Germany | | | | | | |
| 10. Hello | China | | | | | | |
| 11. Horoscope of love | Shanghai/China | | | | | | |
| 12. Innotex | Innotec/France | | | | | | |
| 13. Kazanova | India | | | | | | |
| 14. Kimono | Shuretex/Tailand | | | | | | |
| 15. King | Korea | | | | | | |
| 16. Lux | Tyandi/China | | | | | | |
| 17. Masculan | Germany | | | | | | |
| 18. Nevalashka | FAM & C/ China | | | | | | |
| 19. Ocamoto | Ocamoto/Japan | | | | | | |
| 20. One Touch | Japan | | | | | | |
| 21. Passion | Mara/Germany | | | | | | |
| 22. Primeros | Czech republic | | | | | | |
| 23. Protex | Avaka/Malaysia | | | | | | |
| 24. Romantic Love | Romantic/Malaysia | | | | | | |
| 25. Romed | Germany | | | | | | |
| 26. Ritex | Germany | | | | | | |
| 27. Setabello | SEtabello/Italy | | | | | | |

| 28. Sico | CPR/ Germany | | | | | | |
|---------------------|----------------------------|-----------------------------|-------------------|--|----------------------------------|-------------|----------------------------|
| 29. Simplex | Simplex/China | | | | | | |
| 1. Name of the drug | 2. Producer/ Country | 6. # of units in subpack | 7. Price per pack | 8. Price per unit (tab, dragee, ampu- les, capsules, etc.) | 9. Sales/Usage during last month | | 10. Available resources |
| | | | AMD | AMD | # of packs | # of months | # of packs |
| 30. Style jeans | Japan | | | | | | |
| 31. Super Lux | England | | | | | | |
| 32. Unidus | | | | | | | |
| 33. Unity | USA | | | | | | |
| 34. Viva | Joinville/ Brazil | | | | | | |
| 35. Viva | Shuretex/Tailand | | | | | | |
| 36. Visit | Condomi Erfurt/ Germany | | | | | | |
| 37. | | | | | | | |
| 38. | | | | | | | |
| 39. | | | | | | | |
| 40. | | | | | | | |
| 41. | | | | | | | |
| 42. | | | | | | | |
| 43. | | | | | | | |
| 44. | | | | | | | |
| 45. | | | | | | | |
| 46. | | | | | | | |
| 47. | | | | | | | |
| 48. | | | | | | | |

Comments _____

End time __ : __

Appendix 4: Guidelines for Completing the Form

General Comments: Please make sure to fill information in appropriate row and column. Try to write as clear as possible. Use space for comments at the end of each section to indicate any important details not included in the form. For each category of drugs ask the pharmacist/healthcare provider to show all types of available contraceptives.

1. Compare the **name** of the drug or the product in the list with the name indicated on the pack. If the name is indicated follow to the next point. In case if the drug/product is not on the list add as a new item at the end of the section and fill in the rest of the information.
2. Check the **producer and country** or fill in if missing.
3. Check the **unit** type or fill in if missing.

| Types of units | | |
|----------------|----------------|----------------|
| <i>English</i> | <i>Հայերեն</i> | <i>Русский</i> |
| tablet | հաբ | таблетка |
| capsule | սպտիճ | капсула |
| dragee | դրաժե | драже |
| ampule | սրվակ | ампула |
| suppository | մոմիկ | свечка |

4. Check the **dosage** of the drug. Make sure to choose correct dosage if there are several dose types of the same drug. For example, spermicide Farmatex has several doses and unit types.
5. Find out how many blisters or subpacks are there in the pack and indicate if missing or incorrect on the list. For example, hormonal contraceptive Novinette may have one or three subpacks in one pack with 21 tablets in each subpack. Thus, one whole pack of Novinette will have either 21 or 63 tablets in it.
6. Indicate **number of units** in the pack (tablets, pills, ampules, suppositories, IUDs, condoms). For example if one pack contains 10 tablets or 3 condoms record 10 or 3 respectively.
7. Indicate the **price** of the whole **pack** in AMD.
8. Indicate the **price** of one **unit** in the pack (tablet, pills, ampules, suppositories, IUDs, condoms) in AMD. For example if the price of one pack of hormonal contraceptive Diane 35 is 4000 AMD and it has 21 pills in one pack then the price of one unit which is pill in this case will be $4000/21=190$ AMD.
9. Find out the number of packs sold in pharmacies or distributed in the health facilities in the last month from the registration journal. In case that there is no such a journal, ask the pharmacist to give the best estimate of the number of the packs sold in last month. If in one month less than one pack had been sold than ask the pharmacist in how many months they sell one pack and record it in the form.
10. Find out the **stock** of each drug **available** in the pharmacy. Ask the pharmacist or healthcare provider how many packs of the drug they have at the moment and record it in the form.

Appendix 5: Informed Consent Form

My name is In this research we will study the availability and affordability of contraceptives in pharmacies and healthcare facilities. The study is conducted by Project Nova in collaboration with American University of Armenia. The aim of Project Nova is to improve reproductive health and maternal and child health throughout Armenia.

Your pharmacy/facility has been selected to participate in the study because it is located in this region. We need information concerning the types, prices and sources of contraceptives in your pharmacy/facility. It will take you no more than 15 minutes to answer the questions.

Provided information will not affect your business or employment. You, personally, will not benefit from the study, but it will help us to understand the barriers for contraception use and to develop correct interventions in order to prevent thousands of unintended pregnancies.

The information obtained will be used in a summarized format. No specific names or addresses will be collected. Only information concerning city or village name will be gathered. Confidentiality will be assured through special code system, which will be understandable only by researcher. Every effort will be made to protect the confidentiality of information.

It is your choice to participate in the study. If you decide not to participate in the study, it will not have any undesirable consequences for you or your business. If you have any questions concerning the study, please contact Varduhi Petrosyan, tel . (37410) 512565 or Zaruhi Mkrtychyan, tel. (37410) 274125. In case that you feel that you have not been treated fairly or you think that you had been hurt by joining the study please contact Yelena Amirkhanayan, American University of Armenia, tel.(37410) 512568.