



USAID
FROM THE AMERICAN PEOPLE

HEALTH POLICY
INITIATIVE

APPLYING THE ALLOCATE MODEL TO IMPROVE DECISIONMAKING AT THE REGIONAL LEVEL:

A CASE STUDY OF UKRAINE

NOVEMBER 2008

This publication was produced for review by the U.S. Agency for International Development (USAID). It was prepared by Emily Sonneveldt and Emily J. Byron of the Health Policy Initiative, Task Order 1.

The USAID | Health Policy Initiative, Task Order I, is funded by the U.S. Agency for International Development under Contract No. GPO-I-01-05-00040-00, beginning September 30, 2005. Task Order I is implemented by Futures Group International, in collaboration with the Centre for Development and Population Activities (CEDPA), White Ribbon Alliance for Safe Motherhood (WRA), Futures Institute, and Religions for Peace.

APPLYING THE ALLOCATE MODEL TO IMPROVE DECISIONMAKING AT THE REGIONAL LEVEL:

A CASE STUDY OF UKRAINE

November 2008

The views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the U.S. Government.

TABLE OF CONTENTS

- Acknowledgments iv
- Executive Summary v
- Abbreviations vi
- I. Introduction..... 1**
- II. The Allocate Model..... 1**
- III. National-level Allocate Model Applications 3**
 - National-level Application in Ukraine 3
- IV. Decentralized Application of the Allocate Model 4**
 - Ukraine Context 4
 - Using the Allocate Model to Inform Regional Decisionmaking in Ukraine..... 5
 - The Application Process 5
 - Issues to Consider when Planning a Decentralized Allocate Model Application..... 12
 - Lessons Learned in Ukraine..... 13
- V. Conclusion 13**
- References..... 14**

ACKNOWLEDGMENTS

The authors gratefully acknowledge the support of those who made the work described in this report possible. As the lead organizer and facilitator of the Allocate Model application, Natalia Zaglada was an invaluable resource. She directed the technical and administrative aspects of the project in Ukraine. Olena Truhan and Andriy Huk deserve special thanks for providing support from the Health Policy Initiative office in Kiev. Finally, this work would not have been possible without the strong support of the Ministry of Health as well as oblast-level officials, oblast healthcare departments, and the regional government offices.

EXECUTIVE SUMMARY

The decentralization of health services has increasingly become a priority in many countries. In this context, it is crucial for country governments to develop comprehensive national plans to address health problems. However, for effective implementation of these plans, it is also important to (1) empower provincial and district health officials to actively participate in the allocation of resources and (2) build their capacity to provide high-quality health services. In support of these two components, the USAID | Health Policy Initiative and its predecessor, the POLICY Project, applied the Allocate Model (a computer software program) in two of Ukraine's oblasts (provinces), Vinnytsia and Zhytomyr, to evaluate the linkages among reproductive health (RH) funding, health programs addressing RH issues, and health outcomes in the population. In addition, the Health Policy Initiative educated local stakeholders on how to use the application findings to design oblast-level, reproductive health plans. This activity built on previous work in 2005 applying the model at the national level.

Ukraine is experiencing a demographic crisis, characterized by low fertility rates, aging of the population, and decreasing life expectancy. These trends have a negative impact on the welfare of the population and the country's productivity and economic situation. Reproductive health is of particular concern because it is integral to a society's sustainable development. Ukraine has experienced improvement in its RH situation—family planning services are available; its people are becoming more aware of healthy lifestyle choices, safe sex behavior, responsible parenthood, and contraception; the contraceptive prevalence rate has increased; and rates of abortion and maternal and infant mortality have decreased. However, further progress is needed to fully address the health needs of the population.

The POLICY Project developed a user-friendly suite of computer models called Spectrum to help inform the design of comprehensive national health plans. The Allocate Model enables planners to simultaneously analyze data from multiple RH models within Spectrum to explore alternative uses of resources. The Health Policy Initiative and POLICY have applied the model in various countries to enhance the priority-setting dialogue, improve RH action plans, and make resource allocation more efficient. The model can help planners understand how funding levels and patterns can lead to reductions in maternal mortality, abortion-related deaths, child mortality, and unintended pregnancies, as well as lead to increases in contraceptive prevalence.

A major lesson learned from this activity was the importance of involving stakeholders from all sectors and all levels (national, oblast, rayon, and municipal) in policy implementation. Related to this increased participation is the importance of building stakeholder capacity, especially at the regional level, to analyze health needs, design targeted plans, and prepare adequate budgets.

ABBREVIATIONS

FP	family planning
JSI	John Snow, Inc.
MBP	Mother Baby Package
MNPI	Maternal and Neonatal Program Effort Index
MOH	Ministry of Health
NGO	nongovernmental organization
NRHP	National Reproductive Health Plan
RH	reproductive health
RHAP	Reproductive Health Action Plan
UNDP	United Nations Development Program
WHO	World Health Organization

I. INTRODUCTION

Setting priorities and establishing attainable goals pose formidable challenges to policymakers. In Ukraine, the process is especially challenging when policymakers and stakeholders are attempting to address inefficiencies in the health system that result from ineffective operational policies and wasteful resource use. Making informed decisions that will benefit the population requires evidence, and computer model projections help produce that evidence.

The Allocate Model is a computer program designed to assist with setting priorities and developing evidence-based, reproductive health action plans. Applying the model helps to answer the following key questions:

- How much funding is required to achieve the goals of the Reproductive Health Action Plan (RHAP)?
- What goals are feasible (for indicators such as unintended pregnancies, maternal mortality ratio, and contraceptive method mix)?
- How should available resources be allocated to best achieve these goals?

By linking funding to program activities and linking program activities to outcome indicators, the Allocate Model helps to explain the relationship between funding levels and the effective implementation of safe motherhood, postabortion care, and family planning (FP) programs. The model also aims to improve resource allocation by demonstrating the impact of funding changes on national indicators, such as the maternal mortality ratio.

The Health Policy Initiative and its predecessor, the POLICY Project, have applied the Allocate Model to inform the development of a national RHAP in three countries—Ethiopia, Senegal, and Ukraine. After a successful application and workshop at the national level in Ukraine in 2005, workshop participants agreed to use the model results to advocate for improved and expanded FP services. They suggested that a regional-level application would be instrumental in convincing regional-level officials and non-health sector government personnel (who control the budget) of the importance of reproductive health (RH) programs.

This report first describes the process of applying the Allocate Model at the regional level. Then, using Ukraine as a practical example, the report summarizes the (1) application of the model at the national level, (2) steps for then adapting the model to apply it at the regional level, and (3) challenges and questions related to a decentralized application.

II. THE ALLOCATE MODEL

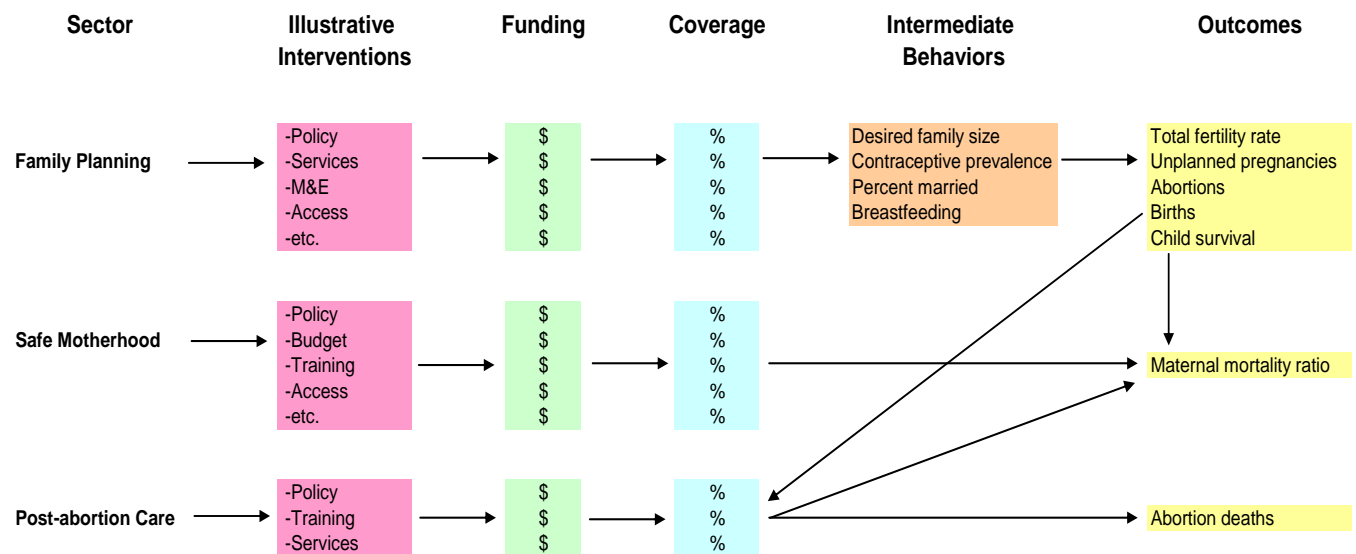
The Allocate Model informs the RHAP development process by building various scenarios (e.g., reducing unmet need for family planning by 50 percent) and analyzing the possible impact on the health budget and national health indicators. To build these scenarios, stakeholders identify the national health priorities and desired achievements in national and international documents. The model aims to improve resource allocation both within and across the components of RH programs by integrating RH models and thereby demonstrating the effects of resource allocation on various national indicators. For example, what is the likely impact on maternal mortality if funding for family planning is reduced or increased? The Allocate Model helps to link integrated national plans with attached budgets by illustrating the effects of decreases, increases, or reallocation of RH program funding on a summary screen, allowing decisionmakers to make informed decisions.

Allocate is one of 11 applications that form the Spectrum suite of policy models.¹ The Allocate Model integrates outputs from four models in the suite:

- *DemProj* forecasts the population structure for a country or a specific region by age and gender and by rural or urban residence based on specific fertility, mortality, and migration trends for up to 50 years in the future. This model serves as the base for most of the other models in Spectrum.
- *FamPlan* estimates the number of contraceptive users and acceptors and the cost of providing FP services to (1) reduce unmet need for family planning, (2) achieve desired fertility, (3) attain a specified total fertility rate, (4) attain a specified contraceptive prevalence rate, and (5) achieve the maximum possible results within a specific budget. FamPlan calculates indicators showing the number of users, commodities required, costs, unplanned pregnancies and births, and the number of abortions.
- The *Safe Motherhood Model* supports priority-setting exercises to demonstrate how improvements in program effort can help reduce maternal mortality ratios. It allows improvements in different support and service areas and shows the effect of various patterns of effort. This model has a cost component that allows the user to cost out interventions to help design national plans, strategies, and budgets.
- The *Postabortion Care Model* analyzes the impact of particular FP assumptions on maternal deaths; distributes maternal deaths according to planned births, unplanned births, and abortions; and demonstrates how the allocation of expenditures can increase postabortion treatment and reduce mortality.

Figure 1 below illustrates the interactions among program interventions, funding, and outcome in these four RH areas, further explaining the reasons for integrating the models.

Figure I. Resource allocation for reproductive health action plans



Note: There is no separate component for adolescents. They will be examined separately within each component.

¹ For more on the Spectrum suite of policy models, refer to the “Software” page on the USAID | Health Policy Initiative’s website: <http://www.healthpolicyinitiative.com/index.cfm?id=software>.

The Allocate Model uses the World Health Organization's (WHO) Mother Baby Package (MBP) to collect costing data. The MBP is a well-documented model that estimates costs for both the current status of service delivery and a standard or ideal delivery of maternal and neonatal health services in a country. The amount currently spent includes consideration of current practices, coverage rates, and unit costs, while the ideal model estimates the amount that should be spent to reach best practices, ideal coverage rates, and appropriate unit costs. The MBP is available at www.who.int.

III. NATIONAL-LEVEL ALLOCATE MODEL APPLICATIONS

The POLICY Project applied the Allocate Model at the national level in Ethiopia, Senegal, and Ukraine, helping their governments to set realistic targets for key indicators, formulate adequate budgets to achieve targets for program outcomes, and identify new interventions for RH programs. In Ethiopia, POLICY applied the Allocate Model to help the Ministry of Health (1) draft an improved RH strategic framework that allocated funding more efficiently and (2) foster dialogue about RH priorities among all stakeholders (POLICY Project, 2005a). POLICY helped the government of Senegal with its national health strategic plan and determined that the country would benefit from an increased effort in meeting unmet need for contraception and offering an expanded and higher-quality postabortion care program (POLICY Project, 2006).

National-level Application in Ukraine

As part of the national-level application in Ukraine in 2005, POLICY introduced the model to stakeholders, collected and validated data, and presented the results and analysis at a workshop attended by representatives of the Ministry of Health, RH advocacy networks, the Policy Development Group, the Ukraine Reproductive Health Network, and regional policymakers and service providers (POLICY Project, 2005b). Using the application results, POLICY helped Ukraine devise a comprehensive NRHP and achieve more efficient use of available resources.

This Allocate application assessed the impact on funding for three possible scenarios:

1. Improve the contraceptive method mix by shifting traditional method users to modern methods, while keeping the overall number of users constant.
2. Build on the improved method mix scenario and reduce unmet need by 50 percent.
3. Implement the desired safe motherhood program, which would include essential maternal health services such as family planning, postabortion care, and emergency obstetric interventions.

Key findings

The application showed that implementing scenarios 1 and 2 slightly decreases the overall reproductive health budget. This is because increased modern method use leads to fewer abortions, and providing FP services is less expensive than providing postabortion care services. Implementing the safe motherhood program with full funding produced a marginal increase in the overall RH budget—an amount that could be offset by reducing the inefficient use of resources within the health system. Even though contraceptive prevalence in Ukraine is relatively high at 68 percent, the high number of traditional method users (30 percent) leads to high failure rates and consequently to high rates of unintended pregnancy and abortions, which contribute to increased maternal mortality and disability. By focusing programming on family planning, Ukraine could significantly reduce the number of abortions and maternal mortality—two priorities for the country.

Inefficient resource use

The POLICY Project conducted several studies on resource use and priority setting for reproductive health in Ukraine. The findings highlighted inefficiencies and proposed changes for improvement. A report based on the Reproductive Health Resource Efficiency Study in Ukraine (2001–2002) drew attention to an ineffective use of resources. The study found that centralized financial decisionmaking has not led to the adequate fulfillment of local needs and the under-utilization of staff time, beds, and facilities has been wasteful (POLICY and MEDMA, 2003). There is a need for clear criteria for hospitalization and more accurate diagnostic procedures to reduce the amount of unnecessary bed use or laboratory tests. Often, inpatients are receiving care that should be provided in an outpatient facility (Mostipan et al., 2003). The 1999 Ukraine Reproductive Health Survey found that little changed in the proportion of women who were hospitalized for “prenatal problems” between 1994–1996 and 1997–1999. The prenatal problems included minor problems that are normally treated with outpatient care (POLICY, 2005b). This situation, sometimes called “over-medicalization,” is not only inefficient but results in poor health outcomes for mothers and children. Inefficient use of staff, hospital beds, and facilities results in fewer resources available for other aspects of healthcare, such as drugs or supplies, thus lowering the quality of care (POLICY and MEDMA, 2003). Eliminating such inefficiencies will both improve the quality of service delivery and care and free up resources to fund more effective interventions, such as the safe motherhood program.

Impact and recommendations

The Policy Development Group used the Allocate Model to set achievable targets and develop an adequate budget for the new NRHP 2006–2015. Stakeholders agreed that providing FP services is essential to reduce high abortion rates in Ukraine, and thus, family planning was included in the NRHP as a priority intervention. The stakeholders also recommended that the POLICY Project apply the Allocate Model at the decentralized level in oblasts to increase capacity among local policymakers and program planners in planning for resource allocation. The project also suggested using the model to advocate for reduced excess capacity within the health system, which would allow for a subsequent increase in health professionals’ salaries. The report detailing the national-level application is available at <http://www.policyproject.com/abstract.cfm?ID=2587>.

Subsequently, the Ministry of Health used findings from the Allocate analysis to determine its funding allocations for the national FP/RH program. The MOH allocated US\$24.5 million for the improvement of FP services, including US\$24.5 million for contraceptive commodities.

IV. DECENTRALIZED APPLICATION OF THE ALLOCATE MODEL

Ukraine Context

Fiscal and political decentralization

Upon independence from the Soviet Union in 1991, Ukraine inherited a highly centralized administration and, since 1994, has made modest progress in decentralizing its budgetary and policymaking processes. The 1994 Law on Forming Local Authorities and Bodies of Self-Government returned some power to local councils and their executive committees. The 1996 Constitution safeguarded local autonomy by defining the right of territorial communities to self-government (UNDP, 2003). The budgetary system became more transparent and systematic with the adoption of the 2001 Budget Code, which gave more fiscal freedom to local governments (Beha et al., 2006). A separate analysis in 2008 confirms that local government expenditures as a share of gross domestic product have stabilized but that localities are

increasingly dependent on revenue transfers from the center (Rudyck and Shcherbyna, 2008). The International Centre for Policy Studies and the Institute for Budgetary and Socio-Economic Research argue that until local governments gain more direct control over revenue collection, it will be difficult for local governments to fund and deliver higher quality services. Since the 2004 presidential election and the accompanying Orange Revolution, there has been increased support for decentralization (UNDP, 2006). However, this has not yet translated into significant legislation.

Decentralization of health services

Decentralizing health services has been a priority in many countries over the past decade. Empowering provincial and district health officials and enabling them to actively participate in the allocation of resources are important for building capacity and providing high-quality health services.

Recommendations from policymakers at the national level, as well as the continued efforts by many countries to decentralize financial and regulatory responsibility for healthcare services, highlight the importance of implementing the Allocate Model at both the national and decentralized levels.

Using the Allocate Model to Inform Regional Decisionmaking in Ukraine

After successfully applying the Allocate Model to inform the NRHP, the government needed support from stakeholders at the oblast level to legitimize the national plan. In a 2006 effort to get regional planners and policymakers involved, the Ministry of Health (MOH) asked the Health Policy Initiative to apply the Allocate Model in two oblasts, Zhytomyr and Vinnytsia. The objective was to use findings from the local applications to inform the design of 2007 RH plans. The Health Policy Initiative collaborated with the Together for Health Project, implemented by John Snow, Inc. (JSI), to provide technical assistance to oblast-level policymakers as they created plans aligned with the new national plan but customized to the conditions in their local environment. The two projects worked with the MOH and oblast health ministries to select Vinnytsia and Zhytomyr. Together for Health had plans to continue working in Vinnytsia after the application, which made it a logical place to start.

The two projects met early on in the process to plan the application in Vinnytsia. The Health Policy Initiative carried out the application and helped Vinnytsia prepare its oblast RH plan before transitioning technical assistance to JSI. In addition, the Health Policy Initiative, Together for Health, and the Maternal and Infant Health Project (implemented by JSI Research and Training Institute, Inc.) co-sponsored the dissemination of the results at a national conference. The following section outlines the process for applying the Allocate Model at the decentralized level and presents examples from the applications in Vinnytsia and Zhytomyr. This report should serve as a guide for future regional-level applications of the model.

The Application Process

The process used in Ukraine can be replicated for future applications in decentralized settings. Typically, the application is conducted over at least six months, but the timing can vary depending on how long it takes to collect the required data. The three main steps for applying the model are the same at the national and regional levels, but the details of each step should be modified based on the individual situation.

Step I. Create a multisectoral process

Creating a multisectoral process is imperative to the success of an Allocate Model application. The model is designed to enhance dialogue and decisionmaking on RH planning and programming, which requires the involvement of those engaged in planning, service provision, and resource management. Thus, the first and most important step in an Allocate Model application is to form a multisectoral working group to

facilitate the process of applying the model and identifying and using the findings. The working group should comprise specialists in fields such as demography, epidemiology, health finance, and planning, as well as represent various sectors (government, civil society, private sector, and donors). This group should include, at a minimum, representatives from the MOH, Ministry of Finance, nongovernmental organizations (NGOs), and healthcare providers. Any other key partners in reproductive health at a specific site should participate, including community and/or faith-based organizations, pharmaceutical representatives, and private sector partners. There should be 6–12 members, with a maximum of 15. The total number of meetings during the application process depends on factors such as the availability of participants, the participants' trust in and capacity of locally hired consultants, and the quality of discussion during the meetings. It is essential that consultants are capable of facilitating discussions involving policy dialogue, while remaining results-oriented and focused on real, achievable recommendations.

The multisectoral process in Ukraine. In each oblast, the working groups included government RH providers, government financial staff, NGO representatives involved in reproductive health, and pharmaceutical company representatives who sell contraceptive commodities. The model application process began with an introductory meeting attended by high-level oblast representatives who encouraged cooperation and transparency during the process. In addition to legitimizing the application, their support helped ensure the quick provision of data and other requested resources.

The Health Policy Initiative hired local consultants to support the process in each oblast. The consultants were familiar with the RH program and the resource allocation process but had minimal data management skills. It was therefore necessary for the national-level coordinator to train and work with the consultants on the data collection, scenario formulation, and dissemination processes.

Step 2. Collect and analyze data

Application of the Allocate Model requires the collection of appropriate reproductive health and costing data to describe the current situation; compilation of strategies and plans to identify intended future program directions, such as indicator targets and introduction of new or decentralized health services; and for decentralized applications, information on how the local situation is both similar and different from that of the national situation.

The foundation of the Allocate Model is demographic data on population size, births, deaths, and migration. This information serves as the base for all the projections and scenarios used in the model to identify effective interventions and ways to allocate resources. Non-demographic data, such as information on the quality and kinds of services being provided and the costs of providing them, are collected at the facility level. Data collection is guided by a sampling framework approved by the multisectoral working group. This framework should include a list of health facilities that spans the different levels within the health system.

Oblast-level data collection and sampling framework in Ukraine. The sample size was determined during conversations with oblast-level personnel and was chosen to reflect the diversity of the population within each oblast, based on guidance from the WHO MBP manual (WHO, 1995). The facilities were chosen to account for demographic factors: areas with high and low population density, facilities with high or low use of health services, local industry and types of employment, and various ethnic groups (see Table 1). The WHO manual recommends that “[f]or a typical rural district of about 500,000 inhabitants, a sample of six to eight health posts, six to eight health centers, and all of the hospitals in the district may well be sufficient. It is important that the data collected be representative of the situation in the district as a whole.”

Table 1. Facilities sampled in Zhytomyr and Vinnytsia Oblasts					
Zhytomyr			Vinnytsia		
Facility	Sample Size	Total Facilities	Facility	Sample Size	Total Facilities
Midwife Unit	14	884	Midwife Unit	14	953
Rayon Hospital	7	23	Rayon Hospital	7	27
Oblast Hospital	2	5	Oblast Hospital	2	5

The WHO MBP estimates costs for both the current status of service delivery, and a standard, or ideal, delivery of maternal and neonatal health services in a country. The current status model estimates the amount spent when considering current practices, coverage rates, and unit costs, while the ideal model estimates the amount that should be spent to achieve best practices, ideal coverage rates, and appropriate unit costs. The MBP is designed to require a minimum number of facilities, making it possible to minimize the amount of time and money spent on this stage of the model implementation. However, it is important to capture the variation in quality and capacity of health facilities, making it important to include facilities at all levels of service.

Additionally, the model requires information from the Maternal and Neonatal Program Effort Index (MNPI) to make estimates on program performance, which is collected from RH experts. In 1999, 2002, and 2003, RH experts evaluated and rated maternal and neonatal health services as part of an assessment in 55 developing and transitional countries (Bulatao and Ross, 2002). The results of this study informed the development of the MNPI, which produced both international and country-specific ratings of relevant health services. The index is a tool that RH advocates, providers, and program planners can use to

- Assess current healthcare services,
- Identify program strengths and weaknesses,
- Plan strategies to address deficiencies,
- Encourage political and popular support for appropriate action, and
- Track progress over time.

International and national strategies provide a general framework for the Allocate Model and assist with specifying targets for both indicators and quality of services. It is essential that the multisectoral working group is or becomes familiar with national-level RH strategies and plans. If district-specific documents exist, they should serve as the main guide in the application.

Scenario creation. The scenarios created for the Allocate Model usually focus on FP, safe motherhood, and postabortion care interventions and indicators. Examples include targets for contraceptive prevalence and a diverse method mix; reductions in maternal mortality and abortion; and inclusion of key components in health services, such as iron supplementation or intermittent preventive treatment for malaria within antenatal care.

International Recognition of Maternal Health Goals
 The international health community has publicly recognized the reduction of maternal mortality as a top priority at high-level conferences and in international documents.

- International Conference on Population and Development (Cairo 1994)
- Fourth World Conference on Women (Beijing 1995)
- Millennium Declaration (2000)
- The Partnership for Maternal, Newborn, and Child Health (September 2005)

In Ukraine, the working groups in each oblast decided to focus on three main scenarios for the Allocate Model, each over a 10-year period. These scenarios were oblast-specific and allowed the participants to discuss current data, see the effect of changing indicators, and discuss possible strategies for improving

RH indicators. Each oblast used the same first two scenarios. The first or base scenario served as a control or point of comparison, as there were no changes to the current RH program. The second scenario for both oblasts assumed that unmet need for family planning was reduced by 50 percent over the 10-year period. In Zhytomyr, the third scenario provided all teenagers (ages 15–19) and 3 percent of disadvantaged women ages 20–49 with free contraceptives. In Vinnytsia, the third scenario provided free contraceptives for 10 percent of rural women.

The working groups raised several issues while formulating the scenarios, including whether it was feasible to increase funding for family planning and what FP services would need to be increased. Providing free contraceptives to particular segments of the population raised a host of issues: What policy issues need to be addressed and how would the policies be implemented? What segment should benefit? Would there be testing for eligibility and, if so, and how would testing be implemented? The groups decided that it may not be necessary to fully fund safe motherhood, as the difference between current funding and full funding does not drastically affect the maternal mortality ratio; and that strategic funding may be more effective. The groups debated increasing funding for particular safe motherhood interventions such as prenatal care and whether the interventions should be targeted to reach rural or disadvantaged women. They discussed the validity and cost of fully staffing midwife units and providing prenatal and postpartum services and whether service delivery guidelines for safe motherhood should be designed for greater efficiency (an activity incorporated in the national plan).

Data analysis. Before the data are ready for analysis, the next steps include cleaning the data; entering data into the computer model; adapting the model parameters and data capacity to the current context; and programming the newly created scenarios into the model, including adjusting the model's interactive face page. How long these steps take varies greatly by the number of facilities included in the model and the level of services offered at each level of facility.

Following are the findings from two scenarios applied to the two oblasts.

Selected results from Zhytomyr Oblast. Scenario 3 (providing all teenagers, ages 15–19, and 3 percent of disadvantaged women ages 20–49 with contraceptives) focuses on the importance of creating avenues for disadvantaged populations to access desired RH services. The working group in Zhytomyr recognized that both teenagers and poor women were more likely than other women to have unintended pregnancies because they were unable to afford FP services. The group created the scenario to help advocate for a fund to purchase contraceptives for these at-risk populations. Implementation of Scenario 3 resulted in improvements across all indicators (see Figure 2). The number of unintended pregnancies decreased from 30,788 to 24,109—a 22 percent reduction (compared with 8 percent in the base scenario). The number of abortions decreased from 17,857 to 13,983, a 22 percent reduction (compared with 8 percent under the base scenario).

The model projected that the overall cost decreased from 23.5 million to 22.6 million Hryvnas, mostly due to the reduction in unintended pregnancies and the number of women requiring abortions and treatment of postabortion complications. The cost of implementing this scenario, which includes the 1.9 million Hryvnas for contraceptives, is close to that of implementing Scenario 2—reducing unmet need by 50 percent—and again less costly than the base scenario. Devising a strategy to integrate scenarios two and three would foster an interesting discussion among decisionmakers on the priorities of the oblast and potentially a fourth scenario for consideration.

Selected results from Vinnytsia Oblast. Implementation of Scenario 2 (reducing unmet need for contraception by 50 percent by 2015) resulted in improvements across all indicators. Contraceptive prevalence increased from 30 to 36 percent, and the number of unintended pregnancies decreased from 24,242 to 16,904—a 30 percent decrease (compared with 6 percent under the base scenario) (see Figure

3). The number of abortions decreased from 9,697 to 6,762, a 30 percent decrease (compared with 7 percent under the base scenario). The overall cost increased slightly from 38.4 million to 39.8 million Hryvnas due to the large number of women adopting family planning. However, this scenario clearly shows that a modest increase in resources can result in improvements in several key RH indicators.

Figure 2. Selected results from the Zhytomyr Scenario 3 application—providing free contraceptives to teenagers and disadvantaged adults

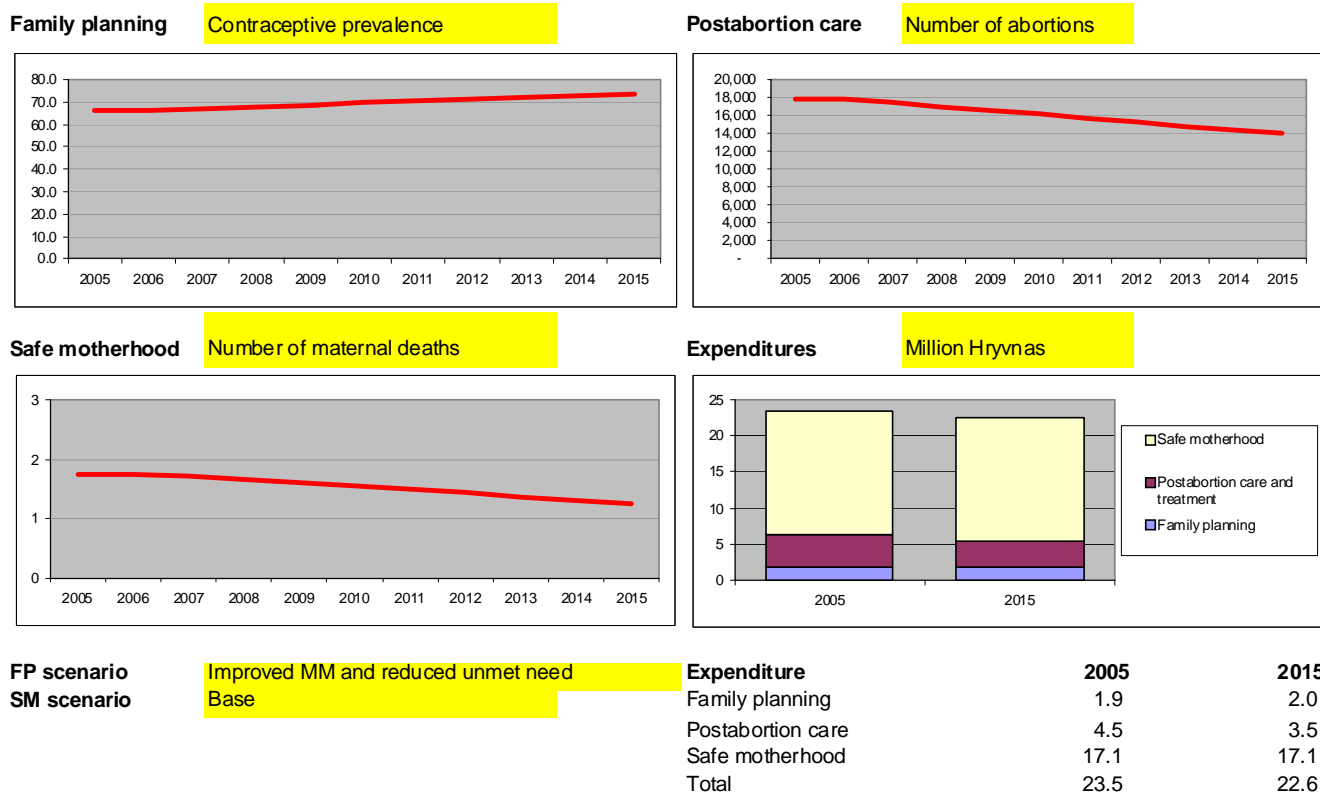
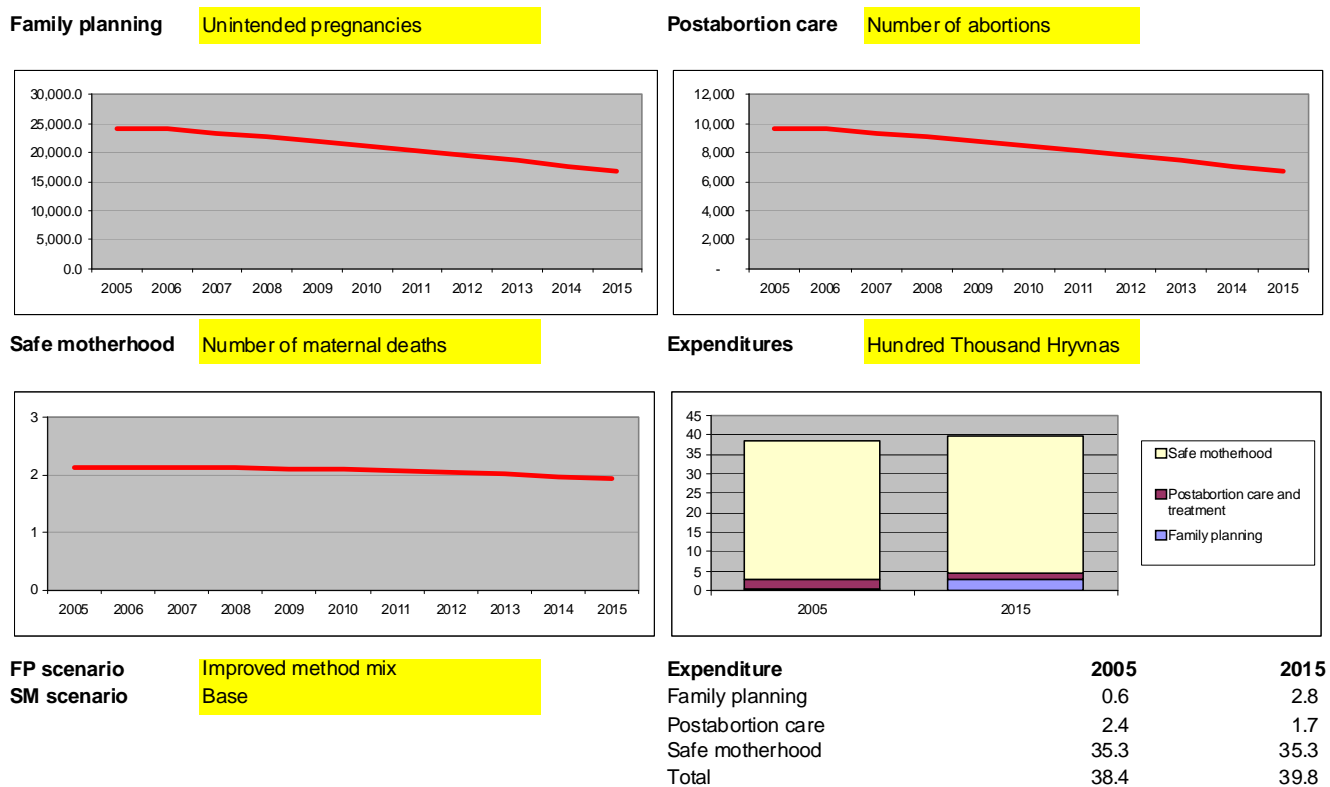


Figure 3. Selected results from the Vinnytsia Scenario 2 application—reducing unmet need for contraception by 50 percent by 2015



Validation of data and finalization of the model. After the data analysis is complete and the scenarios have been entered into the model, the multisectoral working group must review the initial findings and guide the modification process to create a model showing the optimal results before the results of the revised or new scenario can be finalized and disseminated. This process is usually accomplished during a one-day meeting, when changes can be recommended, entered into the model, and reviewed throughout the day.

Step 3. Recommendations and advocacy

The working group should use the model findings to make concrete recommendations for improved RH programs. Generally, these recommendations will relate to (1) targets and strategies for RH programs and (2) resource allocation to support the programs. However, there could be additional recommendations for improving quality of care and logistics. The working group should also disseminate the findings and organize advocacy efforts that target all key decisionmakers. For example, meetings should be held to highlight the findings and create an enabling environment for dialogue and decisionmaking.

Recommendations from Ukraine oblasts. Working groups in both regions used the final results from the model to create RHAPs that focused on oblast-specific priorities and needs while reinforcing the overall national plan. The findings sparked heated debates among local stakeholders, but the stakeholders eventually committed themselves to meeting the priority needs in reproductive health and creating appropriate and targeted plans. The key persons in both oblasts thought highly of the scientific, evidence-based approach and believed it would be useful for RH strategic planning in the future.

The model application resulted in the following specific recommendations:

- Promote reproductive health among adolescents and youth by providing free FP commodities;
- Increase funding and commitment to family planning as part of the country's overall efforts to reduce abortions and maternal deaths; and
- Ensure the high quality of RH services through efficient management throughout program implementation.

In each oblast, the multisectoral working group facilitated drafting of the RH plans and accompanying budgets. Upon finalization, Natalia Zaglada, the lead organizer, presented the plans and budgets at the national level, which were approved.

National dissemination of results. In October 2007, the Health Policy Initiative and JSI co-sponsored a national workshop to present technical approaches and financial guidelines for developing oblast FP/RH programs, based on the experience in Vinnytsia and Zhytomyr. The participants included senior health leaders and financial specialists from all oblasts in Ukraine, including the Crimea and the cities of Kyiv and Sevastopol, as well as national MOH officials. The presentations emphasized the importance of mobilizing local-level resources (from oblast, rayon, and municipal budgets) to support implementation of the *State Program Reproductive Health of the Nation*. The Health Policy Initiative collected data that helped identify operational policy barriers, gaps in service provision, and misallocation of limited resources. The model application highlighted the importance of conducting a comprehensive situation analysis and comparing policy options before deciding which interventions to implement. The conference participants recognized how useful the Allocate Model was in building local capacity to identify and prioritize health needs and to develop locally tailored programs. After this meeting, 21 local health departments used the Allocate analysis to develop budgets to achieve their FP/RH goals. The Allocate Model not only served as a tool for program development but also as a basis for justifying the annual funding for FP/RH services. Use of the Allocate analysis has led to changes in program implementation and has created a model of facility financing based on both the quality and volume of service delivery.

Issues to Consider when Planning a Decentralized Allocate Model Application

Information

- **Availability of demographic data.** Accurate demographic data are essential to a successful Allocate Model application. Unfortunately, this information is not always available at the district level. In this case, the working group must discuss solutions, such as using national-level data or making estimates based on available data. Since this information forms the basis for the entire model, it is essential that the group agrees on the final solution, so the data produced are accepted.
- **Representative data collection.** Because of their limited geographic scope, district-level sampling plans allow for minimizing the number of facilities to be sampled, while maximizing the representation of the variation between facilities.
- **Balance between national and district plans.** The purpose of a decentralized application is to identify and make recommendations relevant to the district as well as to involve district-level personnel in the decisionmaking process. However, it is also important that any recommendations and strategies developed are consistent with national plans and protocols so that everyone is working on a shared vision. The format of most national plans, which usually focus on general objectives and overall targets, leaves ample room for districts to tailor their approaches and create programs that reinforce national-level interests.

People

- **Adequate representation.** The ability to use the findings from the Allocate Model to inform policy change and budgetary decisions relies almost entirely on forming the appropriate working group. The group must include persons who can effectively deliver the information to decisionmakers.
- **National-level connections.** To ensure that the scenarios in the model are consistent with national-level guidelines and norms, the working group must include someone who is knowledgeable about the current national priorities. This person should be intimately involved in formulating the scenarios.
- **Consultant capacity.** In some countries, it may be difficult to identify consultants with all of the requisite skills for a full model application. Options for overcoming this obstacle are to broaden the role of the overall national coordinator, as was done in the Ukraine oblasts; hiring two consultants per district; using a consultant from the capital or other area and paying for his/her temporary relocation to the district; or in cases where substantial cost information is already available, limiting the role of the consultant.
- **Dissemination of results.** After a district-level application is completed, the working group needs to disseminate the results at the local and national levels. This compounds the importance of involving high-level oblast officials who have the necessary connections and authority to facilitate the national-level dissemination.

Logistics

- **Timing.** To maximize the benefits of the findings, it is imperative that the application coincide with either the development of an annual or multi-annual RH plan or strategy or the allocation of health resources.
- **Location.** It is important to consider the presence of ongoing projects or activities that can maintain the momentum of advocating and implementing the findings after the application.

Lessons Learned in Ukraine

The stakeholders involved in the local-level application learned several lessons and confirmed the benefits of involving multiple sectors in the analysis and planning. Applying the model at the district level is an effective way to strengthen stakeholders' ability to identify and prioritize needs and develop programs tailored to local needs. Overall, the process carried out in Zhytomyr and Vinnytsia proved to be replicable. In implementing the process, the Health Policy Initiative observed advantages and disadvantages that might inform future sub-national applications.

Advantages

- Decentralized applications can improve the rollout of national-level plans. In Ukraine, the results in both oblasts highlighted the same needs identified in the NRHP. This helped legitimize the plan and motivated the oblast officials to support it.
- Local policymakers can improve their capacity to use data for decisionmaking, use health resources efficiently, engage in a multisectoral process, and plan strategically.
- The data collected helped the groups identify operational policy barriers, gaps in service provision (when compared with existing standards), and misallocation of resources. The Allocate Model helped local stakeholders evaluate specific needs in each oblast, clarify policy options, and stimulate policy dialogue. Because the members of the working group were directly engaged, they understood the need to address RH needs and were motivated to develop high-quality oblast-level plans and advocate for their acceptance at the national level.

Disadvantages

- Lower capacity at the decentralized level can require more involvement and supervision. Many districts have never created their own RH plans and budgets or used such a multisectoral process. The high quality of transportation in Ukraine meant this was not overly difficult. However, rural areas needing special expertise for the application might require relocating a higher-level consultant to the district, which could be costly.
- Absence of some district-level data and information resulted in more time and resources used to collect them, and increased the number of assumptions used in the model. However, as more and more responsibility is delegated to the district level, this information will become more readily available.

V. CONCLUSION

The Allocate Model is a useful tool to support program planning as efforts to decentralize decisionmaking and resource allocation increase. The district-level application has two main benefits: (1) building capacity of district-level personnel in data-based decisionmaking and effective resource allocation and (2) increasing the quantity and availability of data in the district. The model also provides valuable information on quality of services, staffing levels, operational and logistical barriers to health services, and level of enforcement of national norms and protocols. All of this information contributes to improving access to and quality of reproductive health services.

REFERENCES

- Beha, Andriy, Anatoliy Maksiuta, Natalia Martynenko, Volodymyr Nikitin, Iryna Shcherbyna, Viktor Skarshevskiy, and Natalia Starostenko. 2006. *Fiscal Decentralization in Ukraine: In the Context of Local Government Reform*. Kyiv: Policy Analysis Group on Fiscal Decentralization Project, International Centre for Policy Studies. Available at: http://www.icps.com.ua/doc/Fiscal_Decentralization_Eng.pdf.
- Bollinger, Lori. 2005. *Allocate Version 1: A Computer Program to Improve Priority Setting and Reproductive Allocation for Reproductive Health*. Washington, DC: POLICY Project, Futures Group. Available at <http://www.healthpolicyinitiative.com/index.cfm?id=software&get=Spectrum>.
- The Budget Code of Ukraine. 2001. Available on the World Bank website http://www1.worldbank.org/publicsector/pe/BudgetLaws/Ukraine%20Budget%20Code%20_2001_.pdf . Accessed on August 27, 2008.
- Bulatao, Rodolfo A., and John A. Ross. 2002. "Rating Maternal and Neonatal Health Services in Developing Countries." *Bulletin of the World Health Organization* 80: 721–727.
- Mostipan, Olexandr, Andriy Gayduk, Volodymyr Lepit'ko, Nicole Judice, Viktor Galayda, Karen Hardee, and Varuni Dayaratna. 2003. *Reproductive Health Resource Efficiency Study in Ukraine 2001–2002*. Washington, DC: MEDMA and POLICY Project. Available at: <http://www.policyproject.com/abstract.cfm?ID=2053>.
- POLICY Project and MEDMA. 2003. *Overcoming Operational Policy Barriers to Reproductive Health in Ukraine*. Washington, DC: POLICY Project, Futures Group. Available at: <http://www.policyproject.com/abstract.cfm?ID=1735>.
- POLICY Project. 2005a. *Application of the Allocate Model in Ethiopia*. Washington, DC: POLICY Project, Futures Group. Available at: <http://www.policyproject.com/abstract.cfm?ID=2588>.
- POLICY Project. 2005b. *Application of the Allocate Model in Ukraine*. Washington, DC: POLICY Project, Futures Group. Available at: <http://www.policyproject.com/abstract.cfm?ID=2587>.
- POLICY Project. 2006. *Cost-Effective Interventions to Reduce Maternal Mortality in Senegal: The Role of Postabortion Care and Family Planning, An Application of the Allocate Model*. Washington, DC: POLICY Project, Constella Futures. Available at: <http://www.policyproject.com/abstract.cfm?ID=2806>.
- Rudyck, Artem, and Iryna Shcherbyna. 2008. *Local Finances and Immovable Property Taxation in Ukraine*. Kyiv: Institute for Budgetary and Socio-Economic Research.
- United Nations Development Program (UNDP). 2003. *The Power of Decentralization: Ukraine Human Development Report*. Kyiv: UNDP. Available at: http://www.un.org.ua/files/NHDR_FULL_ENG.pdf.
- Ukraine/Blue Ribbon Commission for Ukraine. 2006. *The State and the Citizen: Delivering on Promises*. Kyiv: UNDP. Available at: <http://europeandcis.undp.org/governance/show/085BA06A-F203-1EE9-B361612118239625>.
- World Health Organization (WHO) Division of Maternal and Child Health. 1995. *Mother-Baby Package: Implementing Safe Motherhood in Countries*. Geneva: WHO.

Other Resources

Agarwal, Kokila, Nicole Judice, Viktor Galayda, and Kamianets-Podilsky City Administration. 2002. *Priority-setting and Planning for Reproductive Health*. Kamianets-Podilsky, Ukraine: POLICY Project, Futures Group.

POLICY Project. 2004. *Core Package Synthesis Report: The Impact of POLICY Core Packages: An Assessment of Results from Romania, Ukraine, and Nigeria*. Washington, DC: POLICY Project, Futures Group. Available at: <http://www.policyproject.com/abstract.cfm?ID=2017>.

Health Policy Initiative, Task Order I
Futures Group International, LLC
One Thomas Circle, NW, Suite 200
Washington, DC 20005 USA
Tel: (202) 775-9680
Fax: (202) 775-9694
Email: policyinfo@healthpolicyinitiative.com
<http://ghiqc.usaid.gov>
<http://www.healthpolicyinitiative.com>