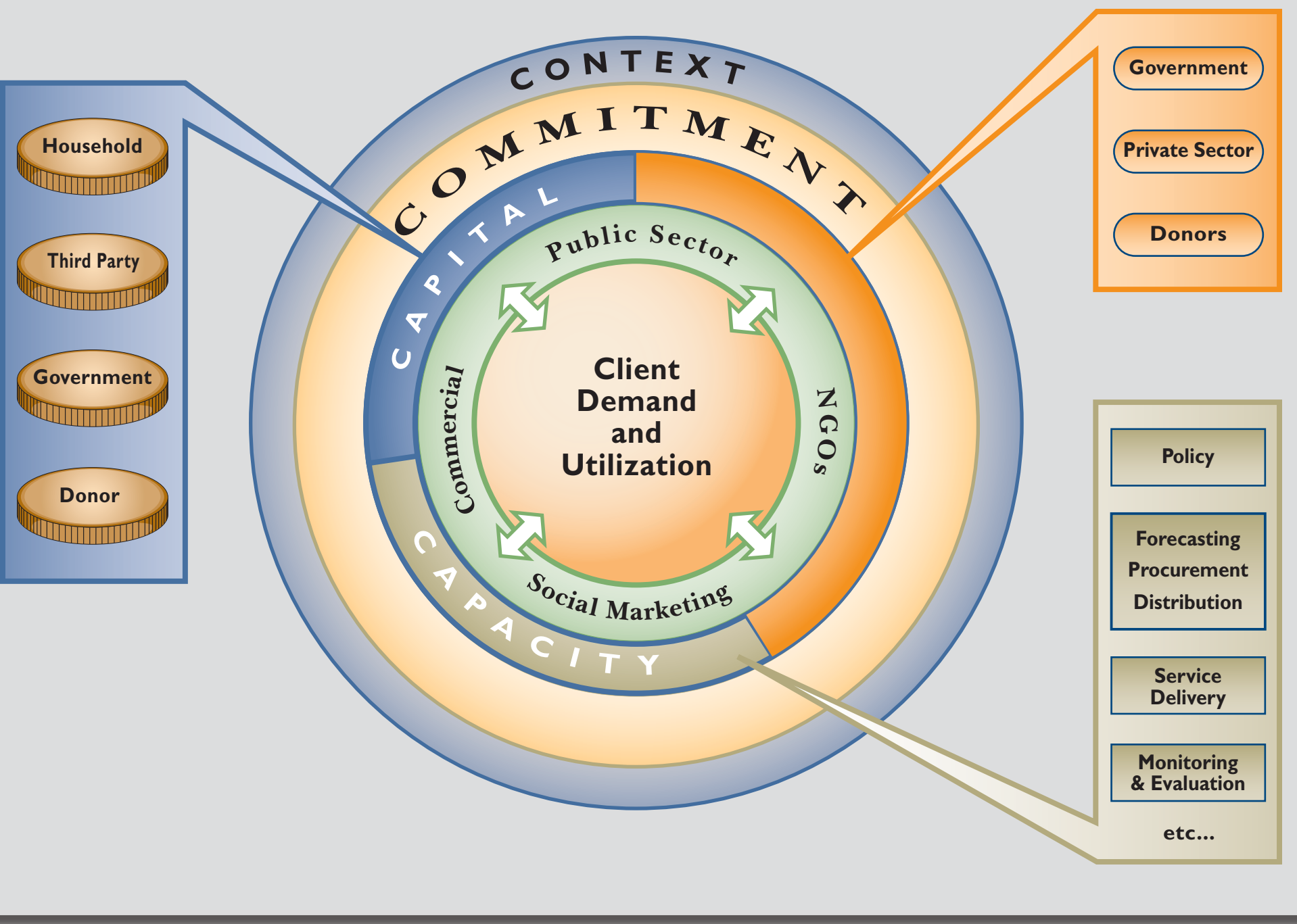


BACKGROUND

The *CS Index 2009* presents an update of the findings from the 2003 and 2006 versions of the *CS Index*. The framework at the core of the *Strategic Pathway to Reproductive Health Commodity Security (SPARHCS)* was used as a conceptual guide in developing the *CS Index*. It defines the program and program environment components that are required to achieve RH commodity security, whether for contraceptives or for other RH commodities (see figure 4).

Figure 4. SPARHCS Framework for Reproductive Health Commodity Security



The *CS Index* and other efforts that promote and advance contraceptive security have drawn much needed attention to these issues and have led to a global movement around contraceptive security.

METHODOLOGY

The original *CS Index* was developed in 2003 by a team of CS experts from USAID, the John Snow, Inc./DELIVER project, the POLICY Project of Futures Group, and Commercial Market Strategies (CMS). Using the same methodology as the 2003 index, the *CS Index* was updated in 2006 and, again with this version, in 2009, with input from many of the same partners. The same indicators and data sources were maintained for the 2009 index using the latest version of all the reference documents. (Refer to notes by indicator below.) If new indicator values were not available since the publication of the 2006 index, the 2006 data are preserved as the most current data available. Data from 2003 were not carried forward to this version.

The process of constructing the *CS Index* was planned to minimize data collection costs (using only secondary data), and to maximize data reliability, validity, and replicability. The selected indicators are a mix of inputs and outputs, and programmatic and macro-level issues. Together, they paint a picture of CS and promote a cross-sectoral approach to addressing CS. Although some indicators are highly correlated, each represents an important aspect of CS. The 17 indicators are arrayed across the five CS components described below; the components are aggregated to create the index. For detailed information about how missing data were filled in to calculate the index, how indicators were weighted, and other technical issues, please refer to the *Contraceptive Security Index Technical Manual* (USAID | DELIVER PROJECT 2009).

Definitions

Component I: Supply Chain—Each of the five indicators of logistics management represents a key function in the supply chain for contraceptive supplies. An effective supply chain ensures the continuous supply of sufficient quantities of high-quality contraceptives needed to achieve security. More effective management of supplies is associated with better prospects for contraceptive security.

When the *CS Index 2003* was calculated, the largest database available with the first four indicators listed below was from the application of the Family Planning Logistics Management (FPLM) project’s *Composite Indicators for Contraceptive Logistics Management* (JSI/FPLM and EVALUATION Project 1999).¹ This tool was updated and improved under the John Snow, Inc./DELIVER project and it became the *Logistics System Assessment Tool* (JSI/DELIVER 2004),² which is the source of the updated data for the first four indicators for the *CS Index 2006* and the *CS Index 2009*. The two tools are comparable because the LSAT was directly derived from the *Composite Indicators*; however, the maximum possible score for each indicator changed in the new tool. Due to the change in the data collection tool and methodology, comparisons over time between the 2003 and 2006 *CS Index* at the country level are discouraged. From 2006 to 2009, country-level comparisons are possible.

- **Storage and distribution**—Assesses storage capacity and conditions, standards for maintaining product quality, inventory control, stockouts, how system losses are tracked, and distribution and transportation systems.
- **LMIS (Logistics Management Information Systems)**—Assesses reporting systems, validation of data, information management, and use in decision making.
- **Forecasting**—Assesses how forecasts of consumption are prepared, updated, validated, and incorporated into cost analysis and budgetary planning.
- **Procurement**—Assesses how forecasts are used to determine short-term procurement plans and the degree to which the correct amounts of contraceptives are obtained in an appropriate time frame.

The fifth supply-related indicator is drawn from the results of the *Family Planning Effort (FPE) Survey* (Ross and Smith 2009).³

- **Contraceptive policy**—Under some circumstances, locally manufactured contraceptives can provide an affordable and sustainable option for clients. In many countries, it will be more effective to have policies and regulations that facilitate open markets and the importation of competitively priced, high-quality products. This indicator measures the extent to which import laws and legal regulations facilitate the importation of contraceptive supplies that are not manufactured locally, or the extent to which contraceptives are manufactured within the country.

Component II: Finance—Sustainable and adequate financing for the procurement of contraceptives, service delivery, and other program components from international donors and lenders, national or local governments, households, and third parties is critical for ensuring contraceptive security. Without a commitment of financing, program quality and access will suffer and CS will not be sustainable. Data are not widely or readily available to obtain an adequate country-level picture of contraceptive financing by donors/lenders, third parties (e.g., insurers, employers), or the private sector. Three indicators are used to capture the prospects for government and household financing of family planning services and contraceptives in a country. The World Bank’s 2009 *World Development Indicators* (WDI) are the source for these indicators.

- **Government health expenditures as a percentage of total government spending**—A national government’s commitment to public health, specifically to reproductive health and family planning, is critical for CS. The poorest segments of a population depend on free or subsidized health services, often provided by the government for essential preventive and curative health services. This indicator is a measure of political commitment to public health spending as a proxy for government commitment to family planning programs. Greater commitment to health spending means more potential resources for family planning programs as part of overall government health programs. This indicator is derived from two indicators in the WDI: public expenditures on health as a percentage of the gross domestic product (GDP), divided by total government expenditures as a percentage of GDP:

$$(\text{Gov Exp on Health/GDP}) \div (\text{Total Gov Exp/GDP}) = (\text{Gov Exp on Health/Total Gov Exp})$$

- **Per capita gross national income (GNI)**—A greater ability to pay for contraceptives at the household level is associated with better prospects for CS. To allow for a better comparison across countries, this indicator represents the average consumer’s potential ability to pay for family planning services and contraceptives expressed in purchasing power parity (PPP), which corrects for the differences in the market price of goods in each country.
- **Poverty level**—While per capita income measures the average consumer’s ability to pay, there are always inequalities in the distribution of income. High poverty rates can threaten CS if provisions are not made to ensure access to services and commodities for the poor. Higher poverty rates can indicate a greater reliance of the population on the public sector, adding stress to already overburdened systems. Because higher poverty rates are associated with lower household incomes and poorer access to health care, higher poverty rates are also associated with poorer prospects for contraceptive security. This indicator is expressed as the percentage of the national population living below the nationally defined poverty line.

Component III: Health and Social Environment—The health and social environment component comprises three indicators; this component is included because it is widely recognized that other factors in the broader health and social environment can affect prospects for contraceptive security at both the country and individual levels, as described below.

- **Governance**—A healthier political environment improves prospects for contraceptive security. An accountable, stable, effective, and transparent government is more likely to be committed to the health and well-being of its population and to use its resources appropriately for the public good. International donors are also more likely to provide financial and material support to such a government. The private sector is more likely to invest in creating new or expanding existing markets for contraceptives. This indicator is a composite measure that includes six dimensions of governance: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. It is derived from the World Bank’s *Governance Matters* (Kaufmann, Kraay, and Mastruzzi 2009).
- **Women’s education**—Women’s educational attainment is one of the best predictors of contraceptive use. Women who are educated beyond primary school are more likely to use a contraceptive method. In addition, in countries where women’s status is good, educated women are more likely to advocate for the protection of family planning programs. This indicator is expressed as the percentage of females enrolled in secondary school, which is defined as the ratio of the number of students enrolled in secondary school to the population in the applicable age group (gross enrollment ratio). Secondary school enrollment rates were obtained from the UNESCO Institute for Statistics, which is the source for the Population Reference Bureau’s online DataFinder database 2009.
- **Adult HIV prevalence**—It is increasingly recognized that a higher burden of HIV in a population can erode prospects for contraceptive security. HIV and AIDS contribute to higher levels of poverty and the pandemic has put new, competing demands on health financing. This indicator is expressed as the percentage of adults aged 15–49⁴ who were infected with the HIV virus at the end of 2007. Adult HIV prevalence rates were obtained from the UNAIDS *Report on the Global HIV/AIDS Epidemic 2008*.

Component IV: Access—The three access indicators measure aspects of availability and access to modern methods of contraception—the degree to which clients can *choose and obtain* their method of choice. Family planning and reproductive health programs should strive to offer a variety of methods to meet the needs of *all* clients.

- **Access to modern family planning methods**—Ready and easy access by clients to a wide range of contraceptive methods is associated with better prospects for contraceptive security. When family planning services are widely available, it is very difficult to reverse progress in access and availability of these services and supplies. This indicator from the *FPE Survey* measures the percentage of a country’s population that has ready and easy access to male and female sterilization, pills, injectables, condoms, spermicides, and IUDs (Ross and Smith 2009).⁵
- **Public sector targeting**—Public sector family planning programs that offer heavily subsidized (and sometimes free) services and commodities are designed to meet the needs of the poor and near-poor segments of a population. This public sector funding is limited in virtually every country. The degree to which the poorest people benefit from these subsidized services, while wealthier clients who can afford to pay for services and commodities have and use other options, reflects on the long-term CS in a country. This indicator measures the proportion of a country’s contraceptives distributed through public sector channels that go to poor and near-poor family planning clients. *Poor and near-poor* are clients who are in the lowest 40 percent of the population as defined by a standard of living index (SLI). Data from the Demographic and Health Surveys (DHS) and Reproductive Health Surveys (RHS) are used both to compute the SLI and the distribution of public sector family planning users across SLI categories.⁶
- **Spread of access to modern family planning methods**—Access to a wide range of family planning methods represents a choice for clients. Access to a range of methods can also mean that if one method becomes unavailable, other methods are available to clients in the interim. This concept of choice is key to contraceptive security, regardless of what methods clients choose (reflected in *Component V: Utilization*). This indicator is related to the access indicator above and it uses the same data from the *FPE Survey*. It measures whether clients have ready and easy access to a broad range of at least three contraceptive methods by selecting the highest-scored method, minus the third-highest scored method, divided by the sum of access scores for all methods (Ross and Smith 2009).

Component V: Utilization—This component comprises three indicators that measure clients’ behavior in terms of contraceptive use within the country program context.

- **Method mix**—While the *access* indicators (see *Component IV: Access*) measure the extent to which consumers have ready and easy access to methods, this indicator measures the degree to which consumers *use* a range of methods. The broader the range of methods used, the better the prospects for contraceptive security, because it demonstrates that women have a choice and are choosing from a range of methods. This indicator was measured as the difference in prevalence rates between the most prevalent modern method in a country and the third-most prevalent method, divided by the total modern method prevalence. A higher value indicates a higher concentration of use on a limited number of methods, which is interpreted as being not conducive to contraceptive security. This indicator was derived from the most recently available DHS or RHS data set for each country.
- **Unmet need for family planning**—Unmet need is indicative of barriers to accessing and using family planning. The higher the percentage of women with unmet need for contraception, the poorer the prospects for contraceptive security, because unmet need represents clients who express a need to use family planning but cannot or do not. This indicator measures the percentage of women who express a desire to space or limit their next pregnancy, or who would have preferred to avoid or delay their current pregnancy, but are not using a contraceptive method. This indicator was derived from the most recently available DHS or RHS data set for each country.
- **Contraceptive prevalence rate (CPR)**—This indicator is the most obvious outcome of contraceptive security—women actually using contraception. Higher contraceptive use is indicative of better access and availability of contraceptives for the population. Increased contraceptive use will also encourage the improved availability in both the public and private sectors through political pressures and market forces. This indicator measures the percentage of married women of reproductive age currently using a modern method of family planning. This data is from the Population Reference Bureau’s 2009 *World Population Data Sheet*.

¹ Staff from the Family Planning Logistics Management (FPLM) project (the predecessor project to DELIVER) and Ministry of Health counterparts scored the *Composite Indicators for Contraceptive Logistics Management* through a participatory focus group discussion held in each country in 1999–2000.

² Staff from the John Snow Inc./DELIVER (2006) or the USAID | DELIVER PROJECT (2009) and Ministry of Health counterparts scored these indicators in 2006 and 2009 for public sector contraceptive logistics systems based on expert opinion in each country.

³ The FPE survey is conducted periodically around the world by administering a questionnaire to expert respondents from each country.

⁴ HIV prevalence among adults of reproductive age (15–49) is used as the indicator for the *CS Index* because this population is most likely to use contraceptives and avail themselves of services from family planning programs, making it the most relevant population for contraceptive security. It is also the most widely available data.

⁵ This indicator uses the mean access score for these contraceptive methods.

⁶ DHSs are generally conducted with oversight from a USAID centrally funded project. In some countries, RHSs, similar to a DHS but overseen by the Centers for Disease Control and Prevention, have been used where a recent DHS data set was not available.

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ADDITIONAL RESOURCES

Additional contraceptive security resources are available at the following web sites:

Department for International Development (DFID): www.dfid.gov.uk

DKT International: www.dktiinternational.org

Health Systems 20/20: www.healthsystems2020.org

Implementing Best Practices (IBP) Knowledge Gateway: www.ibpinitiative.org/

International Planned Parenthood Federation: www.ippf.org

Knowledge for Health Project (K4Health): www.k4health.org/node/2

Marie Stopes International: www.mariestopes.org

Maximizing Access and Quality (MAQ) Initiative: www.maqweb.org

PATH: www.path.org

POLICY Project: www.policyproject.com

Population Action International: www.populationaction.org

Population Reference Bureau: www.prb.org

Population Services International (PSI): www.psi.org

PSP-One Project (formerly Commercial Market Strategies Project): www.psp-one.com

Reproductive Health Interchange: rhi.rhsupplies.org/

Reproductive Health Supplies Coalition: www.rhsupplies.org

The Extending Service Delivery (ESD) Project: www.esdproj.org

The RESPOND Project (formerly the ACQUIRE Project): www.respond-project.org

UNFPA: www.unfpa.org

USAID: www.usaid.gov

USAID | DELIVER PROJECT: www.deliver.jsi.com

USAID | Health Policy Initiative (HPI): www.healthpolicyinitiative.com

The USAID Contraceptive Security Team works to advance and support planning and implementation for contraceptive security in countries. The team provides technical assistance to USAID missions, country partners, donors, and international partners. The team can be contacted c/o Mark Rilling or Alan Bornbusch, Commodities Security and Logistics Division, Office of Population and Reproductive Health, Bureau for Global Health, mrilling@usaid.gov or abornbusch@usaid.gov.

The Reproductive Health Supplies Coalition is a coalition of donors, multilateral organizations, private foundations, nongovernmental organizations, low- and middle-income country governments, and others dedicated to improving global health and the quality of life by ensuring access to high-quality reproductive health (RH) supplies. The coalition works to synthesize and share information, knowledge, and experience; improve coordination and harmonization of programs; and develop new tools and approaches to address the challenges of inadequate and unreliable financing for RH supplies, inefficiencies in supply systems; and inequities in access to RH supplies. More information can be found at (www.rhsupplies.org.)

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