Securing contraceptives for economic development

Key action points

- The World Health Organization pre-qualification programme must increase the number of contraceptives and generic contraceptives that it pre-qualifies.
- Increased support is needed to develop and build the capacity of national regulatory authorities.

Meeting demand for family planning is dependent on the availability of contraceptive products. It can take decades and substantial funding to undertake the research and development necessary to show that a new contraceptive is safe and effective.

Research, development and the shifting manufacturing landscape
Contraceptive security and research and development

Meeting demand for family planning is dependent on the availability of contraceptive products. The demand for new products – based both on new technologies and existing technologies – comes from users themselves, manufacturers, health providers or health experts. It can take decades and substantial funding to undertake the research and development necessary to show that a new contraceptive is safe and effective.

Products for people

Since the 1950s, research and development efforts in the private sector have been responsible for many of the significant advances in the field of contraception. In the 1970s, there were concerns that the private sector, which had a large and profitable market for oral contraceptives, was reluctant to increase its portfolio. In response, three major public sector organizations became involved in the research and development of contraceptive methods in order to ensure that new products would be affordable for poorer people. These organizations are 1) the Population Council, 2) the UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction, and 3) CONRAD, a research institute. These institutions have developed products such as implantable devices, including Norplant, IUDs, injectables, emergency contraception, chemical barriers for women, hormonal methods for men, non-hormonal methods for women and men, and mechanical barriers for women.

Since 2004, there has been a significant reduction in the number of major pharmaceutical companies in the field, primarily because of mergers and acquisitions. The contraceptive market has changed in recent years partly because of the growth of generic oral contraceptive manufacturers. Two companies in particular, Barr and Watson Pharma, introduced quality generic oral contraceptives, pushing the traditional big players out of the oral contraceptive business. This forced the ‘big four’ pharmaceutical companies – Organon, Ortho, Schering and Wyeth – to look seriously at new products to help maintain their market share. They have subsequently released a vaginal ring, contraceptive patches and implants, and an IUD. These products are available in Europe and the USA, but they are all virtually unaffordable for the general public in the developing world.

New technologies in the pipeline: introduction of depo-subQ provera 104™ in the Uniject™ injection system

Injectable contraception is among the world’s most popular methods to prevent pregnancy, offering women safe and effective contraceptive protection, convenience and privacy. The United Nations Population Fund estimates that global demand for injectable contraceptives will increase 31 per cent by 2015. Despite this popularity, numerous factors inhibit women’s access to injectable contraceptives, including the need to return to a clinic for an injection every three months. A Cochrane review of injectable contraceptives noted that a key to improving injectable contraceptive acceptability is developing approaches that support “providing injections in settings more convenient than clinical sites [and] methods for women to administer their own injections.”

A new formulation and presentation of Depo-Provera® offers the potential to improve access for new users while improving continuation among existing users. This new version, depo-subQ provera 104™ in the Uniject™ injection system (depo-subQ in Uniject), contains 104mg of depot medroxyprogesterone acetate (DMPA). It is administered via subcutaneous injection. Uniject is a small, auto-disable device that is prefilled with the precise dosage of depo-subQ required for three months of contraceptive protection.

Introduction of depo-subQ in Uniject is expected to provide opportunities to extend injectable contraceptive delivery safely and effectively beyond the clinic, and may pave the way for home and self-administration.

Depo-subQ in Uniject is manufactured by Pfizer Inc, the maker of Depo-Provera®.

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† Uniject is a trademark of BD.
**Trends in the pharmaceutical industry**

A trend of mergers and acquisitions in the pharmaceutical industry has created some turbulence in the contraceptive industry. Both Wyeth and Ortho have substantially reduced their contraceptive business, and when Schering-Plough bought Organon in 2007 it further downgraded their contraceptive business. The exception to all this has been Schering, purchased by Bayer in 2006. Now called Bayer-Schering Pharma, it is the last of the ‘big four’ to retain a research and development programme and to be involved in the supply of oral contraceptives to developing countries.

While Bayer-Schering Pharma manufactures high quality products, the lack of competition is a big problem for procurement agencies. Without alternative suppliers, procurement agencies are forced to pay a manufacturer’s asking price, whatever it is, and the products that can be procured are dependent on what the manufacturer chooses to make available or what products donor governments choose to donate. This will affect whether women and men in developing countries have access to their product of choice. More recently, stakeholders were beginning to ask whether the pharmaceutical industries of developing countries could fill the gap and provide products of assured quality at an affordable price.

**High quality, safe and affordable products**

Oral contraceptives account for 50 per cent of contraceptive sales globally. However, as we can see, the pool of manufacturers is shrinking. So where do we go from here, to ensure that demand is met by high quality, safe and affordable contraceptives?

One position is that manufacturers and governments should be supported to build in-country capacity to develop and regulate contraceptives; such products may, in some cases, be cheaper for local customers. However, the products must still go through a stringent regulatory approval process, and research indicates that there is still work to be done to strengthen this process at country level. A recent study assessed 47 manufacturers of oral and injectable hormonal contraceptives in 15 lower- and middle-income countries and found that fewer than 35 per cent could eventually meet the current requirements of the World Health Organization. It is critical for a product to have met the requirements of the World Health Organization’s pre-qualification programme, or that of another stringent regulatory authority, to assure safety and efficacy to potential buyers and clients. At a global level, this process is slow and, to date, only eight contraceptives have gone through the World Health Organization pre-qualification process, compared to 187 medicines for HIV. This supports a case for countries to be given the technical support they need to build equally rigorous national pre-qualification processes.

An alternative position is to focus attention on developing a network among existing generic pharmaceutical manufacturers in lower- and middle-income countries that could supply high quality and affordable products to people in the developing world. However, these products would also have to go through a pre-qualification process, either the World Health Organization process or that of a stringent regulatory authority, to ensure they were safe and effective. By doing so, in some instances, generic manufacturers may be able to expand their markets. Donors will only purchase contraceptives that have gone through the World Health Organization pre-qualification or equivalent process, and purchasing contraceptives manufactured in the region would save shipping costs and time, and make savings for both procurers and the end user.

**Sino-implant (II)**

Hormonal contraceptive implants, introduced more than 25 years ago, are one of the most effective family planning methods developed to date. However, although they are safe and effective, the high cost acts as a deterrent to supply. This results in frequent stock-outs and makes them unavailable in many programmes.

This may change with the development of Sino-implant (II), manufactured in China by Shanghai Dahua Pharmaceutical Co Ltd. Sino-implant (II) lasts four years and costs about 60 per cent less than other implants on the market. As a result, it can be offered to women on a much larger scale than other implants and, most importantly, it is cheaper and it can help reduce the high unmet need for contraception. The manufacturers are currently working with the World Health Organization to obtain pre-qualified status for the product – a statement of quality and safety.
References


Glossary

Pre-qualification is a procedure developed by the World Health Organization in 2001. The pre-qualification of medicines is a service provided by the World Health Organization to assess the quality, safety and efficacy of medicinal products. Many of the largest procurers insist that products they procure have gone through this or an equivalent process.

Stringent regulatory authority refers to a regulatory authority that is 1) a member of the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use, or 2) an International Conference on Harmonization observer, or 3) a regulatory authority associated with an International Conference on Harmonization member through a legally binding mutual recognition agreement. This is deemed the equivalent of World Health Organization pre-qualification and is an internationally recognized indicator of quality, efficacy and safety. Approval from a stringent regulatory authority makes a contraceptive eligible for procurement by large donors.

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