

Contraceptive Security in Indonesia: What do the Data Say?

A consultancy report by

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Contraceptive Security in Indonesia: What Do the Data Say?

Introduction

“Contraceptive Security” takes many meanings, only some of which can be considered in this analysis. Internationally a deep anxiety has arisen as to whether the sheer quantities of needed supplies will be forthcoming, since donors are critical to those supplies but have not shown a willingness to keep pace with the growth in users. Many countries, lacking foreign exchange and local production, have little recourse except to rely upon the uncertain commitments of donors.

The concerns are broader within a country like Indonesia, where local production is robust, donor-dependence is less, and the engines of the private sector are so active. Most probably the supplies themselves will be forthcoming in the gross quantities needed, at least approximately so, even if the decentralization process causes an adjustment period. Without the large central Government procurement in the past, the slack will have to be taken up by either the private sector, the district governments, or other sources, and the private sector is likely to grow to fill in clear market openings. The likely problems, long-term in nature, concern the options open to the individual woman, man, or couple. Some, in remote areas or extremely poor, cannot get supplies or clinical services from either sector. Others do not have ready access to a reasonable choice of methods, so some of them cannot use what little is available and will lack protection. Services too are less than ideal. Depending upon the area, the imperfections of supplies and services, both public and private, mean that prevalence is depressed and many births are unwanted. In that sense, contraceptive security goes beyond the international concern of donor commitment; here it will rest instead heavily upon the districts’ commitments to continue and improve their programs, and upon what the private sector does.

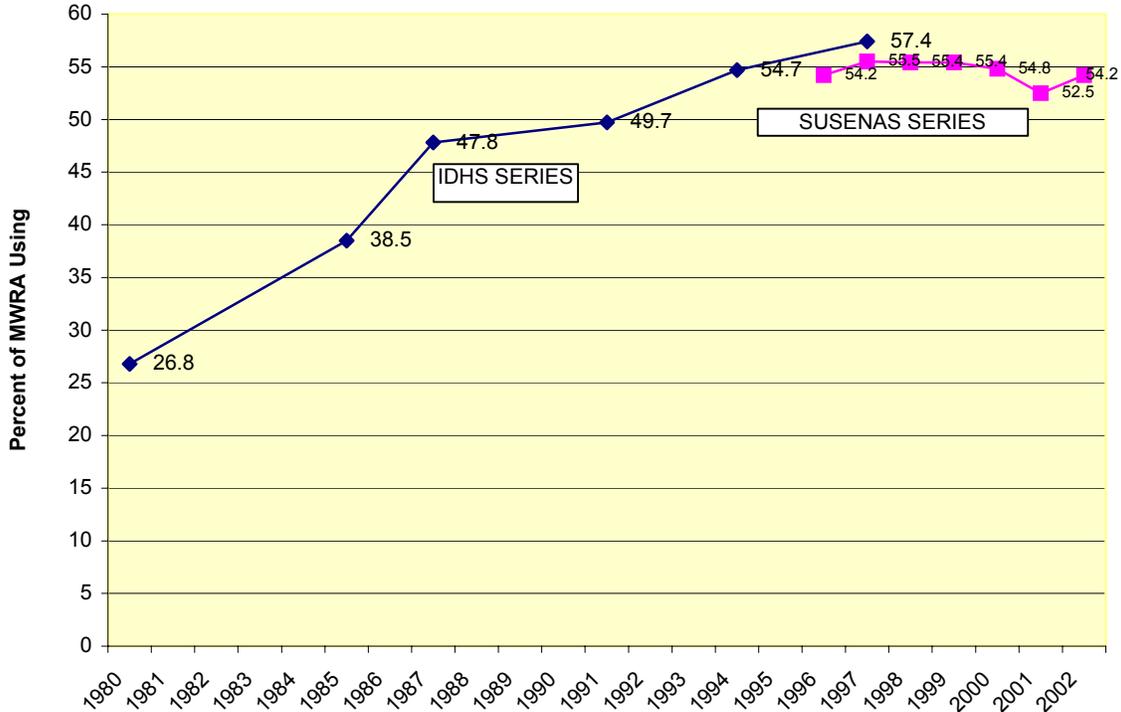
The purpose here is to look for trends and patterns in the national data to see what they imply for the above concerns. What does the stalled rise in prevalence of use imply? How did the disadvantaged subgroups fare during the economic crisis? What changes are underway in the method mix and in the sources for each method? What demographic changes will affect the future method mix? What projections of needed commodities seem reasonable?

Prevalence of Contraceptive Use

By using the long Susenas series of annual surveys a full ten-year trend can be constructed for contraceptive use through 2002. This is provided below, first for prevalence of use (including non-use, on the base of married women of reproductive age (MWRA 15-49), and second for method mix. Supplementary information is added at points from the IDHS series, the IFLS, and other sources.

Figure 1 tells the story for prevalence trends: first the long term trend in Figure 1, showing the remarkable rise from 1980 to 1997, averaging 1.8 points per year, but then the apparent plateauing in the Susenas series in recent years. (The 1980 figure, taken from the census, is probably too low; if the calculation starts with 1985 the average growth was 1.6 points per year.)

Figure 1
Percent of Married women of Reproductive Age (MWRA) Using Any Contraception
National Surveys, 1980-2002



The Indonesia Family Life Surveys (IFLS) in 1997 and 2000 were not national but covered major provinces¹ totaling 83% of the total population. They give basically similar figures to the IDHS series: 56.3% using in 1997 and 56.4 using in 2000. The method distribution for current users in 1997 also closely resembles that of the 1997 IDHS. The IFLS report (Strauss et al. 2002: 70) also states that the 1998 survey (Frankenberg, Thomas, and Beegle 1999) found a constancy of use between 1997 and 1998 during the worst of the financial crisis.

In the unique Susenas year-by-year series prevalence has been essentially level in every population subgroup for six years running, as the Figures show by residence (Fig. 2) and education (Fig. 4), and for three years by economic status quintiles (Fig. 3.) (The quintiles are based on household expenditures per person in the household.) It is not surprising that the Susenas yields a slightly lower prevalence level overall than the IDHS since the IDHS has more detailed questions and specializes on family planning.

¹ East, Central, and West Java; Jakarta; Yogyakarta; Bali; North, West, and South Sumatra; Lampung; South Kalimantan; South Sulawesi; and Nusa Tenggara Barat.

Figure 2
Percent of MWRA using Contraception by Rural, Urban, and Total
1993-2002 (Susenas Series)

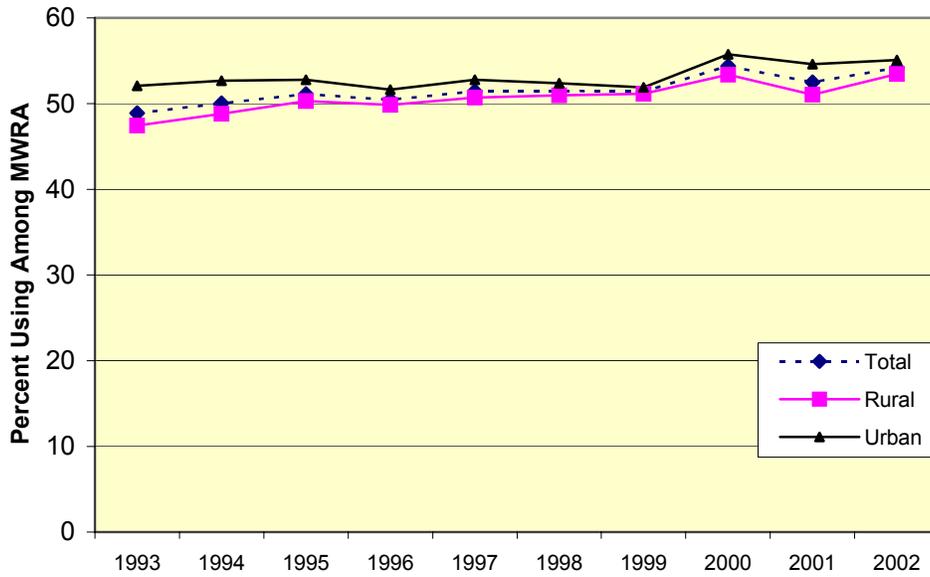


Figure 3
Percent of MWRA Using Contraception by Quintiles (Household Expenditure)
2000-2002 (Susenas Series)

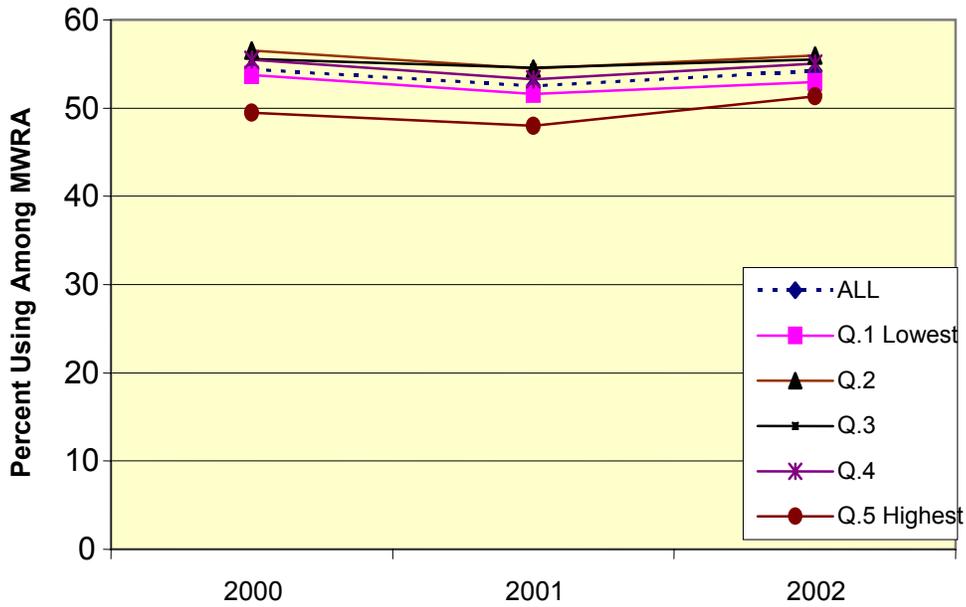
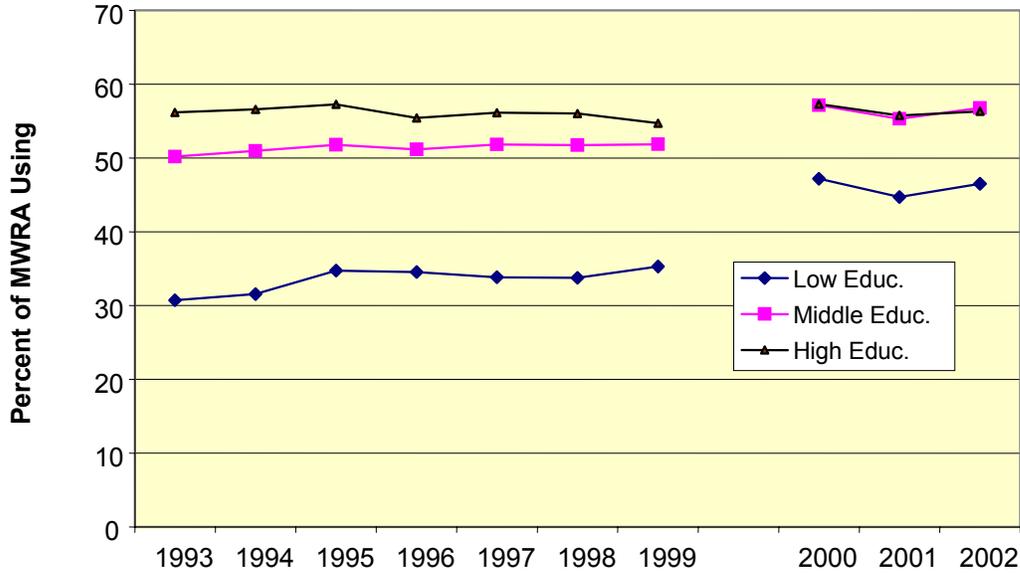


Figure 4
Percent of MWRA Using Contraception by Education
1993-2002 Susenas



The education time series is broken because the definitions of education groups differ between the 2000-2002 series and that for the earlier years. However the message is consistent with that from the other figures, that **prevalence experienced no large disturbance during the crisis years, and that it unfortunately has not risen appreciably since.**

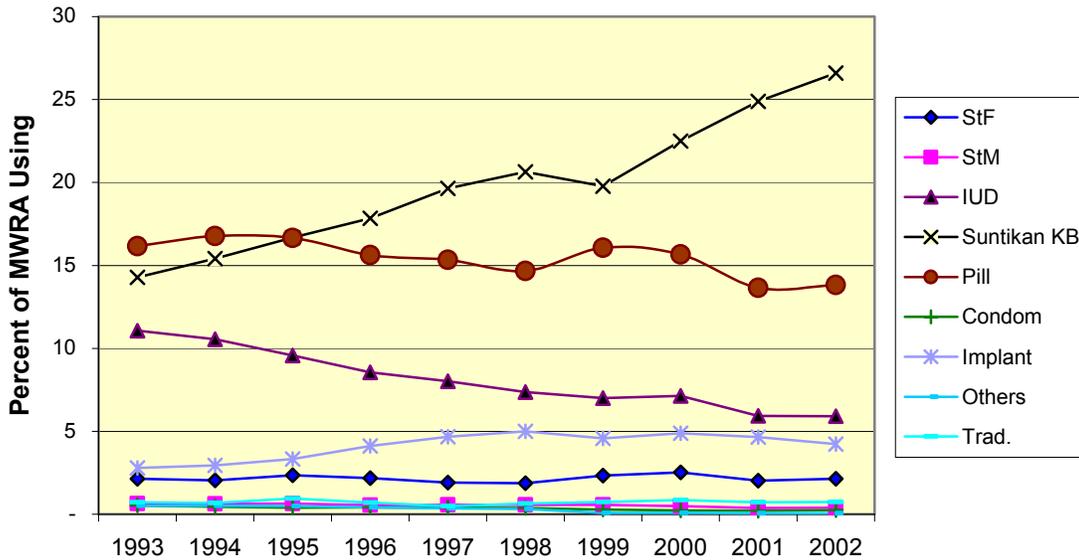
Method Mix Changes

However beneath the rather unchanging level of total prevalence many women have been switching their method (Fig. 5). In particular, use of the injectable (*suntik*) took off from 2000 onward, rising even more sharply than it had before. The Figure shows the national trends by method. Note this figure shows method use among MWRA, not just among users, to give a more immediate sense of each method’s presence in the whole population.

Injectable use has risen to an internationally unprecedented level, to 27% of couples (nearly half of all users.) Meanwhile use of the pill has fallen off some. In addition the IUD continues its long-term decline. Use of the implant is level at less than 5%, but because of high cost it is supply that has been level while demand is high. Female sterilization runs at less than 3% (it and male sterilization totaled 3.4% in the 1997 IDHS survey).

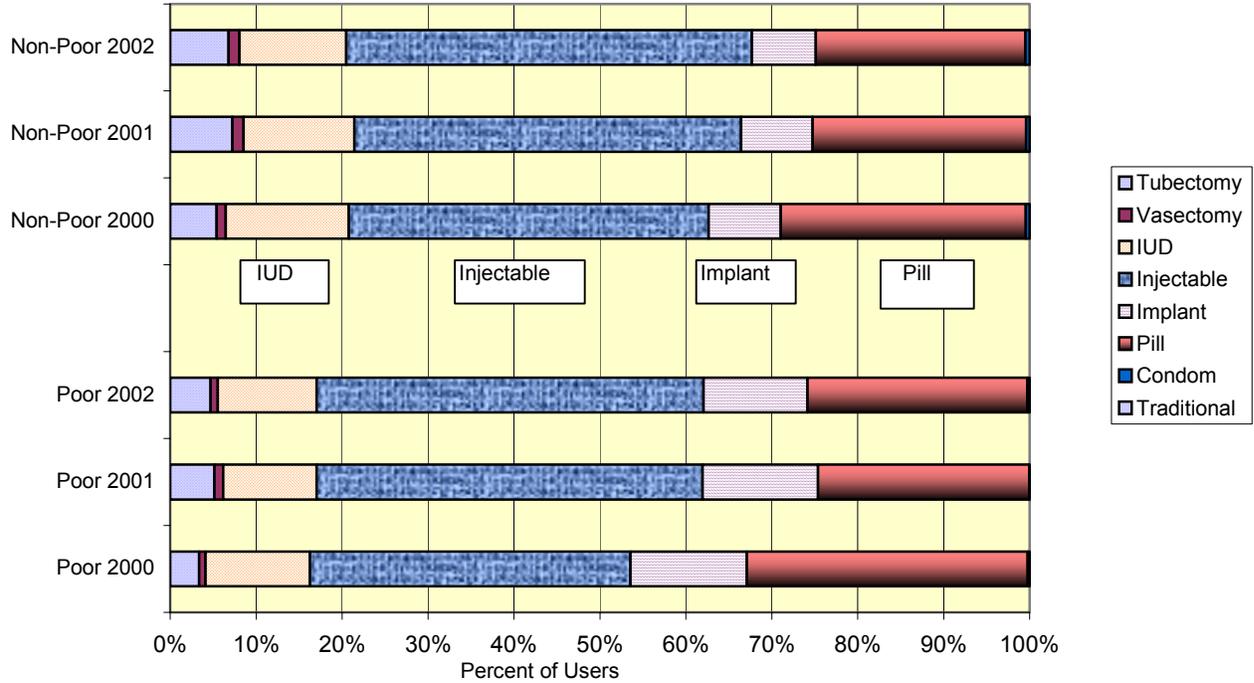
This pattern of prevalence changes for the various methods is not much different across the major population subgroups. The injectable has taken off throughout the population, in both rural and urban sectors, in every economic quintile, and in every family-size group from one to four-plus living children. This is also true in all three education groups. (The top education group uses the IUD more than other education groups, but IUD use has declined even there, down to about 10% of women compared to 5% in the other education groups.)

Figure 5
Prevalence by Method,
Susenas 1993-2002



An example of this similarity across two quintile groups appears in Figure 6. The “poor” are the bottom quintile and are compared to the other four, as “non-poor” which therefore contain most of the population. (These quintiles differ from those above; they are also defined by the Susenas variable for household expenditures but are not divided by household size.)

Figure 6
Percent of Users by Method Mix for the Non-Poor (2-5) vs. the Poor (1)
Susenas, 2000-2002



Another way to see the pattern is by the longer time trend, from 1995 onward, shown in Figures 7 and 8 based on the same data source. Note that there is no particular break during the crisis years, and that the trends are all relatively smooth through 2000, excepting only the shift between the pill and injectable in 1998 that lessens in 1999. **The two groups, basically the poorest vs. everyone else, are quite similar in their method mix shares over time.** (The poor are the lowest quintile, that is, 20% of the population, so the non-poor contain 80% of the population.)

Figure 7
Percentage of All Users by Method Mix for the Non-Poor (Q.2-5)
 Susenas, 1995 - 2002

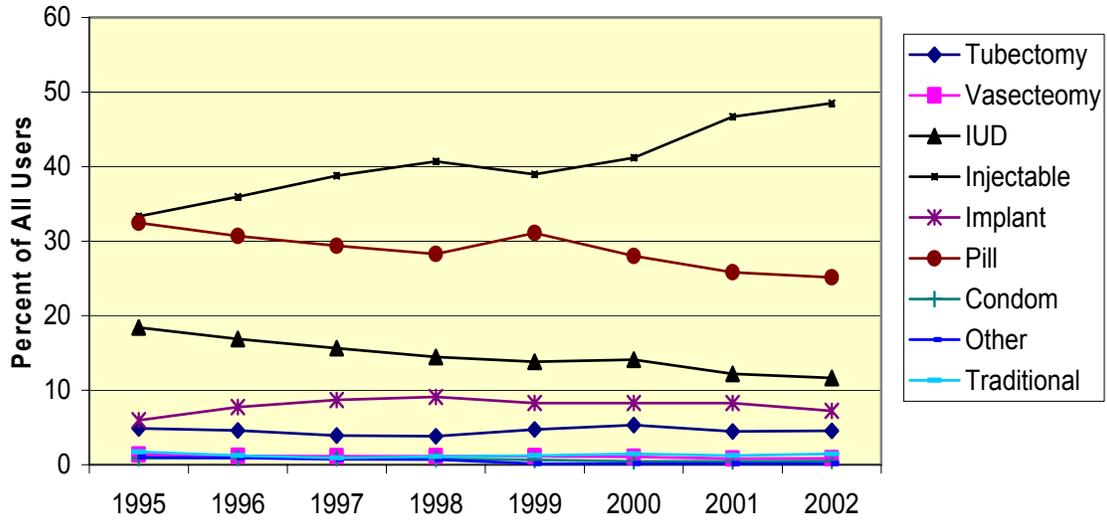
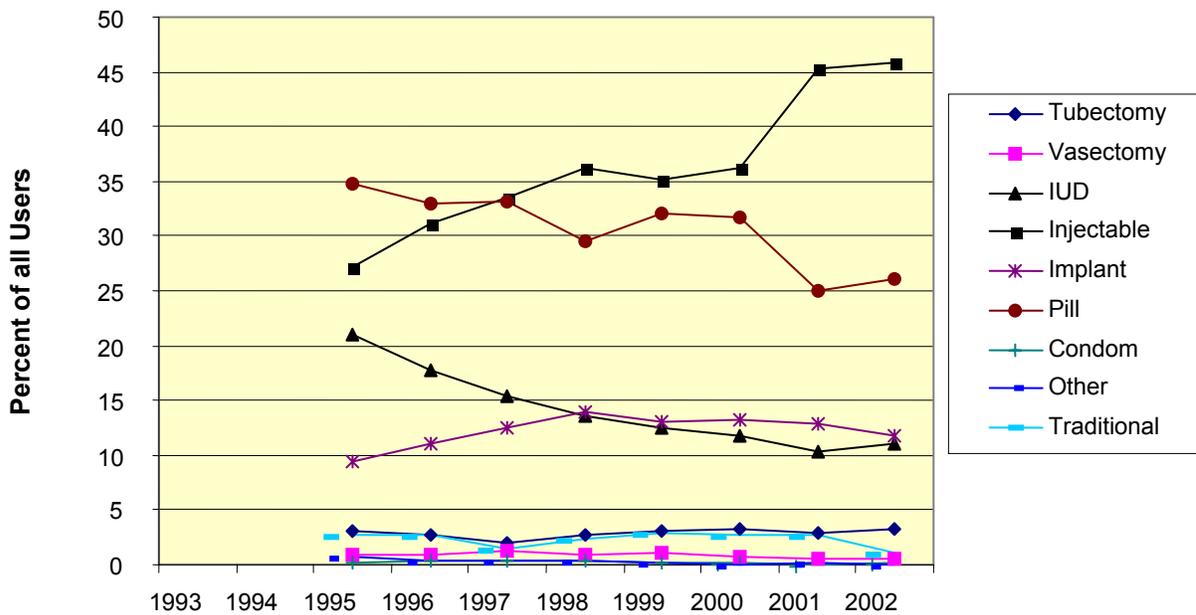


Figure 8
Percentage of All Users by Method Mix for the Poor (Q.1)
 Susenas, 1995 - 2002



Changes in the Source of Supply

The private sector has for many years been assuming a larger role in contraceptive provision, and the trend can now be extended to 2002. Table 1 shows the source of supply, first for all modern methods as a group, and then for the three principal methods of the injectable, pill, and IUD. (The condom is provided mainly by the private sector including the large social marketing component.)

“*Bidan*” in the survey responses means a midwife in private practice, whereas “*bidan-di-desa*” (BDD) is different. The BDD is essentially private but has a nursing degree supplemented by one year of midwifery training by the government, who is then assigned to a village (a lower residential level than for most *bidans*) and is paid a government subsidy. The “*Puskesmas*” source refers to a fully government facility at which services are often provided by *bidans* on the regular staff. It is possible that some of these government *bidans* also give services privately but respondent reports specifying the *Puskesmas* must predominately refer to government personnel as the source. In all these categories the source is as obtained from the women respondents.

Two trends are paramount in this table. First is the decided shift toward the private sector, quite dramatic for the *bidans*, and also for private doctors and for pharmacies, depending upon the method. Second is the corresponding decline not just in the share of the public sector, but also in the overall proportion of women relying on it. The IFLS report (Strauss et al, 2002:73) also found “...large and statistically significant declines from 1997 to 2000 in the fraction of both pill and injection users who obtained their supplies in public facilities.”

To read the table, note that for simplicity rows are shown only for the major sources, and all the rest are collapsed into the “other” line. Also, the columns incorporate the IDHS estimates, first for the particular sources and again below for the three IDHS summary categories of Public, Medical Private, and Other Private.

The “Poor” group is for Quintile 1 in the Susenas data, while the Non-Poor include Quintiles 2-5 and represent most of the population. Therefore the time trend is best seen by reading across from 1994 to 1997 and then over to 2000-2002 in the Non-Poor columns.

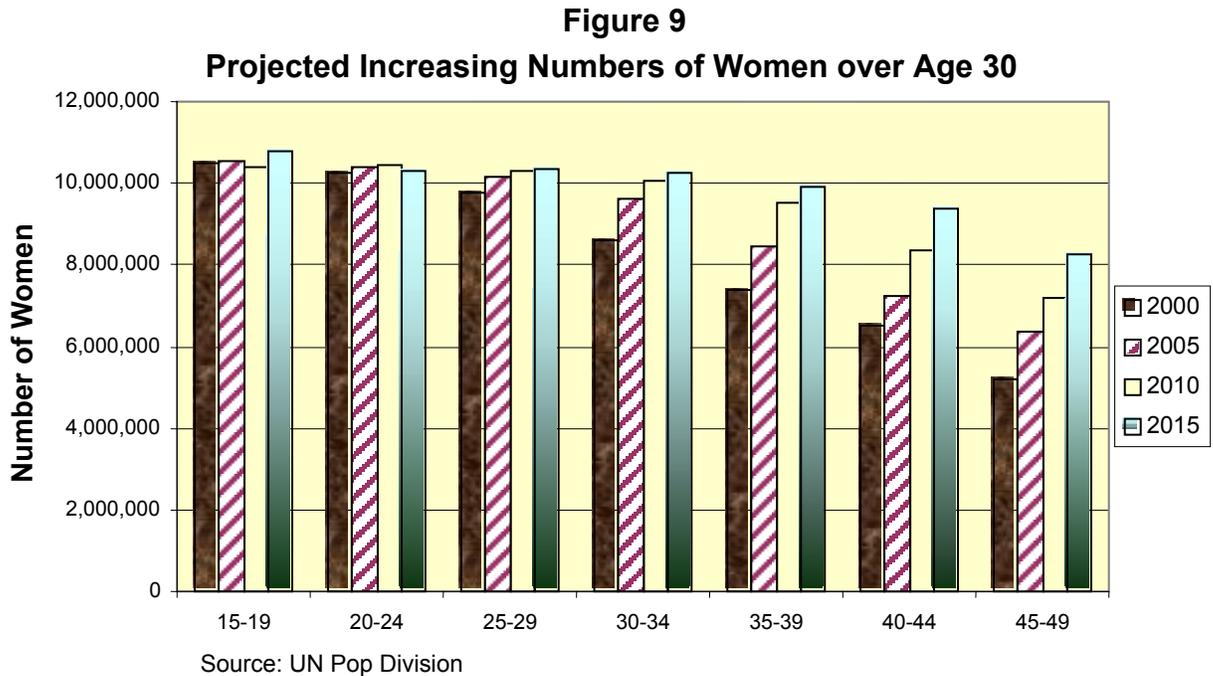
Remarkably, the Poor and Non-Poor do not differ much in their sources for the injectable and pill, both of which cost. They both rely strongly upon the *bidans* for the injectable. For the pill, by 2002, they relied about equally upon *bidans* and pharmacies on the one hand, and upon public sources on the other. Some differences between the Poor and Non-Poor appear especially for the IUD, which involves clinical costs.

Table 1
Sources of Supply by Method, 1994-2002

Percentage of Distribution for Source of all Modern Methods								
	1994 (IDHS)	1997 (IDHS)	Poor			Non-Poor		
			2000 (Susenas)	2001 (Susenas)	2002 (Susenas)	2000 (Susenas)	2001 (Susenas)	2002 (Susenas)
Bidan	16.1	28.3	30.3	36.1	40.3	33.5	39.9	43.0
Polindes/BDD/Posyandu	13.7	10.0	16.6	20.2	18.1	12.7	13.5	11.4
Puskesmas/Pustu	36.5	31.3	31.6	28.9	28.1	26.8	24.6	22.8
Other	33.7	30.4	21.5	14.8	13.5	27.0	22.0	22.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public	48.6	43.0						
Medical Private	28.1	41.9						
Other Private	23.1	15.1						
	100.0	100.0						
Percentage of Distribution for Source of Injectable								
	1994 (IDHS)	1997 (IDHS)	Poor			Non-Poor		
			2000 (Susenas)	2001 (Susenas)	2002 (Susenas)	2000 (Susenas)	2001 (Susenas)	2002 (Susenas)
Bidan	37.5	49.9	51.2	54.0	58.2	51.8	58.6	60.8
Private Doctor	9.2	6.0	2.7	4.1	2.2	6.4	6.9	6.1
Polindes/BDD/Posyandu	6.6	6.2	12.0	15.7	15.0	9.6	10.0	9.4
Puskesmas/Pustu	39.4	29.0	27.4	24.9	22.2	24.6	22.1	19.3
Other	7.3	8.9	6.7	1.3	2.4	7.6	2.4	4.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public	41.9	31.2						
Medical Private	50.4	61.3						
Other Private	7.7	7.5						
	100.0	100.0						
Percentage of Distribution for Source of the Pill								
	1994 (IDHS)	1997 (IDHS)	Poor			Non-Poor		
			2000 (Susenas)	2001 (Susenas)	2002 (Susenas)	2000 (Susenas)	2001 (Susenas)	2002 (Susenas)
Bidan	8.5	18.5	18.1	21.0	28.0	20.5	25.9	29.9
Puskesmas/Pustu	24.9	24.3	22.1	21.0	21.2	23.9	22.3	22.5
Pharmacy	3.3	7.9	7.8	11.4	9.1	10.3	14.2	17.0
Polindes/BDD/Posyandu	26.3	18.9	26.7	36.5	29.9	23.1	26.6	20.3
Other	37.0	30.4	25.3	10.1	11.8	22.2	11.0	10.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public	32.1	33.7						
Medical Private	14.6	31.9						
Other Private	53.1	34.4						
	100.0	100.0						
Percentage of Distribution for Source of IUD								
	1994 (IDHS)	1997 (IDHS)	Poor			Non-Poor		
			2000 (Susenas)	2001 (Susenas)	2002 (Susenas)	2000 (Susenas)	2001 (Susenas)	2002 (Susenas)
Bidan	10.2	17.2	20.4	23.8	24.4	25.3	26.7	28.7
Private Doctor	8.5	8.1	3.4	5.0	2.2	12.3	15.2	16.6
Puskesmas/Pustu	53.0	46.8	51.3	48.2	52.8	34.1	34.2	30.7
Govt. Hospital	8.3	8.0	6.6	6.8	7.1	10.1	11.2	11.3
Polindes/BDD/Posyandu	6.5	7.5	10.0	13.6	9.9	5.4	6.1	4.3
Other	13.5	12.4	8.3	2.6	3.6	12.8	6.6	8.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public	65.8	60.2						
Medical Private	25.4	32.1						
Other Private	8.8	7.8						
	100.0	100.0						

Demographic Considerations

There is one influence that may move the method mix (modestly) toward long-term methods. The prospects for this cannot seem very great since the system is so profoundly oriented to resupply methods. But currently the sum for male and female sterilization, implant, and IUD is an interesting 13% of all married women, or one in eight, so there is in fact a base of interest from which longer-term method use might grow. The influence in question comes from rather remarkable age distribution changes now underway, as seen in Figure 9. It shows that with cohort effect, women over 30 will be a larger proportion of the user population, by which age considerable motivation toward longer-term, simpler methods emerges.



The absolute numbers of younger women remain essentially constant, but because the age at marriage is rising even more young women will be removed from the married pool (Table 2). A counter tendency, much to be desired, is that more of those who do marry may tend to initiate contraceptive use before the first birth, something that is uncommon now. At least use at young ages has been rising steadily (Fig. 10). In any case, the changing age distribution is an important factor affecting the potential market for a better balanced method mix.

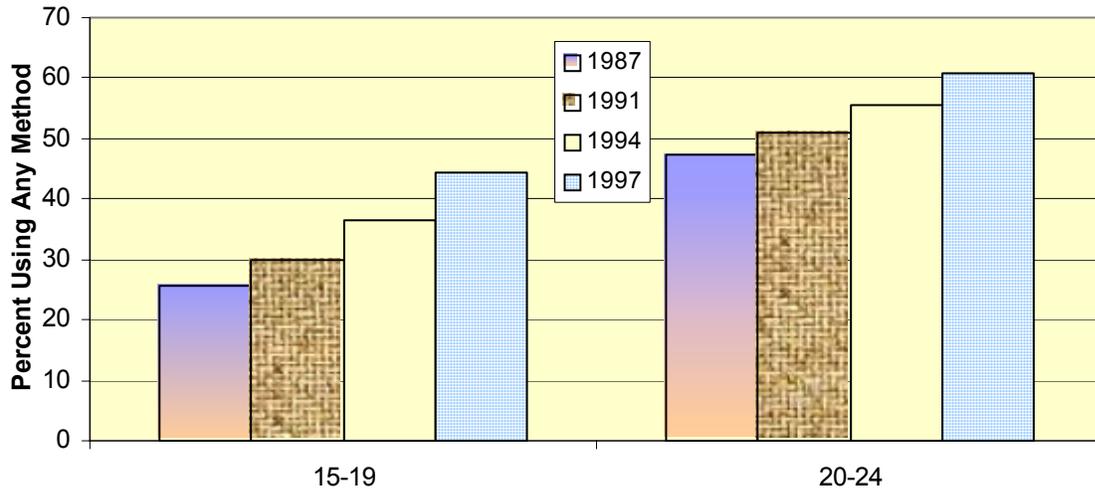
The following estimates in Table 2 for the marriage age (“singulate mean age at marriage”) show a decided upward trend (Hull 2002b Table 1).

Table 2
Singulate Mean Age at Marriage by Year
Female SMAM

Year	Marriage Age
1964	18.9
1971	19.3
1980	20.0
1990	21.6
2000	22.7

By a different measure, the simple median age at first marriage among women now 25-29, was 19.9 years in 1997 (IDHS 1997). The IDHS series of 1991, 1994, and 1997 shows increases in each major region of the country.

Figure 10
Rising Contraceptive Use among Young Married Women
IDHS Series



Comments on the Prevalence Plateau

The plateau in contraceptive use is both a victory and a defeat -- a victory since prevalence did not collapse during the crisis, which might easily have happened since prevalence depends so heavily upon resupply methods, which are sensitive both to supply lines and to prices. It is a defeat in the sense that staying at about 55% of couples protected means serious long-term burdens for the country. Indonesia, far from being a high-prevalence country, stands at a stalled level of contraceptive use that engenders large annual increments to the population and a continued, unfavorable age distribution for the future.

Prevalence has been flat for the last six years, and any move upwards will depend either upon the private sector or upon the national program (or both). The former is unlikely to engineer any major change in public demand or in the quality of services (though it remains interested in clear profit opportunities in provable peripheral markets), and the public program is in some confusion during decentralization to the districts, which will be the key to program implementation.

Meanwhile prevalence at 55% leaves a regrettably large reservoir of unmet need. In the 1994 IDHS survey one in 12 births (8.2%) were unwanted; another one in 11 (9.5%) were not wanted at the time they occurred, for a total of 17.7%. The 1997 IDHS survey yielded similar figures, with 8.3% of births not wanted and 8.8% ill-timed, altogether one in six.

Those figures are more useful than the standard “unmet need” figure, which is only 9% and like all IDHS unmet need figures omits all women who say they want a birth within two years. Many of those same women also say that they intend to use a method within the next year, delaying the pregnancy. Further, many of them, with a recent birth, are about to resume ovulation and be exposed to a premature conception. Thus we prefer to stress the reality that Indonesian women have not wanted one-sixth of their births either ever or at the time when they occurred. This testifies to severe unmet need in the larger sense.

Among women not using a method, 41% in 1994 and 40% in 1997 expressed an intention to use, which even with a discount for courtesy replies is an impressive indicator of the disparity between desire to use and actual practice.

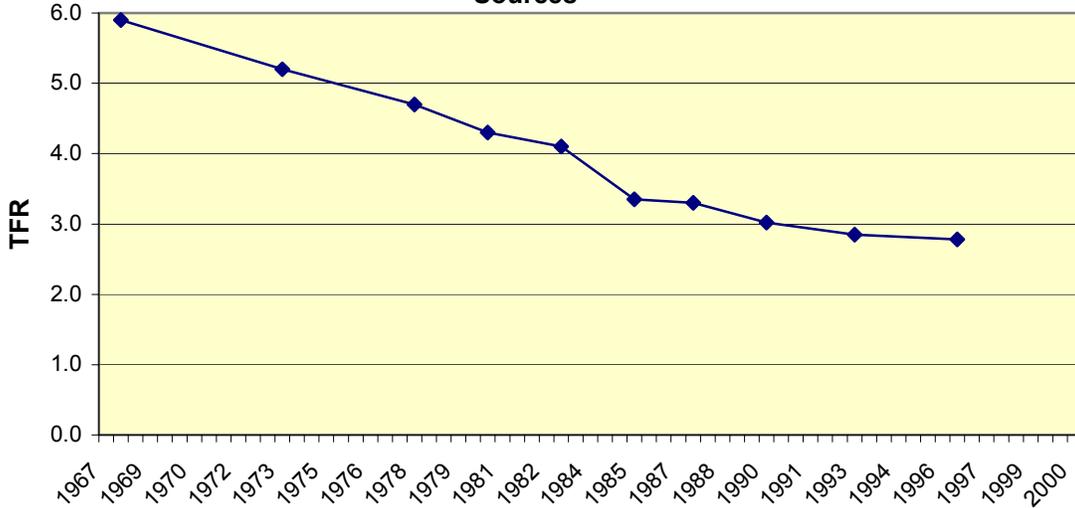
One can think of layers, first for actual contraceptive use, above that for some measure of unsatisfied needs, and above that for the increasing level of need related to population increase and improvements of service quality. To the extent that public and private services can be improved, much of the frustrated market of interested clients can be served, and prevalence can move up, replacing parts of the layers above. That would go far to end the current plateau.

The Gap between Prevalence and Fertility Rates

Some complacency is invited when the Total Fertility Rate (TFR) seems to be falling unexpectedly quickly, even though the level of contraceptive use is contradictory and leaves a gap between the two. Several points apply to the “gap” question. First, the TFR estimates from the 2000 Census vary, being based upon four indirect estimation techniques. These give values of 2.34, 2.43, 2.45, and 2.58, averaging 2.45. Each figure is a five-year average centered on 1997 as the mid-point. The average, and at least the lower three estimates, appear to be too low considering that prevalence is only about 55% and rests mainly on resupply methods with substantial discontinuation rates. The last three IDHS estimates, from the 1991, 1994, and 1997 surveys, gave TFR estimates of 3.02, 2.85, and 2.78, in each case for the three years prior to the survey. Extrapolating the change from the 1991 to 1997 surveys gives 2.66 for the 1997-2000 period. That is considerably above the 1995-2000 census-based average of 2.45 and above all four of the individual estimates. The implication is that the gap between prevalence and the TFR is not so great as it may at first appear (even if prevalence in the Susenas is raised slightly to allow for underreporting compared to the IDHS).

A visual fix on the TFR trend appears in Figure 11, with estimates from a variety of sources including those above (from T. Hull, 2002a, Table 2). Recently there has been some softening in the rate of decline. Extending the portion of the line in recent years could hardly touch 2.45.

Figure 11
Total Fertility Rate (TFR): Long Term Decline Estimates from Various Sources



Source: Hull 2002a: Table 2

All else equal, fertility is lowered due to some 13% of couples using the reliable methods of sterilization, implant, and IUD, and there is little traditional method use with its high failure rates. However continuation and failure rates (IDHS 1997) are typically poor in actual practice for the pill, injectable, condom, and traditional methods, and on average the IUD and implant provide only about three and a half years of protection, after which many women delay in getting alternative protection. Thus the method mix cannot be considered a low-fertility one, and given the unchanging level of contraceptive prevalence since 1997 it is not at all evident how an exceptional drop in the TFR, off the past trend, could have emerged since. No sharp or sudden rise in the marriage age is plausible in that short period. Changes in abortion are uncertain, and breastfeeding practices would not be expected to change markedly in that period. The ongoing shift toward an older age distribution within the 15-49 range, which tends toward a lower general fertility rate but not necessarily toward a lower TFR, will help only in the long run. In any case it seems likely that the TFR is still well above the 1997 average of the Census estimates. Rather than prevalence being too low, the TFR is probably too high, lessening any gap.

Projections of Users

Simple calculations can put boundaries on the future numbers of contraceptive users, for all methods taken together. The assumptions are less firm in projections by method, but the recent surveys trends point to the directions of change. (See the Appendix for an alternative set of calculations in the context of a full population projection.)

All Users

The following figures are approximate, but adjusting them would not change the main conclusions. Suppose there are now 21.3 million users of modern methods among currently

married/cohabiting women² (readers who prefer a higher figure can simply raise the results below proportionately, making the situation appear yet worse). Then say there are about 55% of MWRA using a modern method among the 38.7 million married/cohabiting women aged 15-49 (that produces 21.3 million users). The population base of women aged 15-49 is growing by 7.8% over the present five-year period, adding 3.0 million more married women, for a total of 41.7 million by the end of the period. If prevalence is to remain at 55% the number of users must also grow by 7.8%, to a total of 22.9 million, or an addition of 1,650,000 more couples using a method just to “tread water.” The infrastructures that now service users must grow to match this increment or prevalence will necessarily decline.

Table 3
Projection of Contraceptive Users, Under Four Assumptions
(Millions)

Year	No. of MWRA*	Prev- alence**	No. of Users	Users Added
2003	38.7	0.550	21.29	
2008	41.7	0.550	22.94	1.65
2003	38.7	0.550	21.29	
2008	41.7	0.600	25.02	3.74
2003	38.7	0.550	21.29	
2008	41.7	0.625	26.06	4.78
2003	38.7	0.550	21.29	
2008	41.7	0.650	27.11	5.82

* MWRA: married/cohabiting women of reproductive age

** For modern methods only

Far from declining, the need is to raise prevalence. From international experience an increase of one to two points increase per year is a reasonable expectation (at one percent a year the 55% takes 10 years to reach 65%). Supposing that prevalence in fact rose by either one, one and a half, or two percent each year over five years, then the number of users would rise well above the 22.9 million that is due simply to population growth. In five years prevalence would reach 60%, 62.5%, or 65%, on the new population base of 41.7 million women. That means either 25.0 million, 26.1 million, or 27.1 million users at the end of the five years. The increments, added to the 21.3 million users now, are 3.7 million, 4.8 million, or 5.8 million more users to be serviced

² Two notes: (1) Including the few traditional method users prevalence is estimated in the 1997 IDHS at 57.4% using, equal to 22.2 million total users. That is consistent with the 2000 Census estimate of 38.7 million married women aged 15-49. (2) These estimates omit users among the unmarried, and their numbers may be substantial; moreover their numbers may be growing faster than the rate for married women.

by the end of the five-year period. That translates to large increases in infrastructure capacity needed each year, in both public and private sectors.

The implications for commodities follow, for the alternatives of no increase in the current prevalence of 55%, or an annual rise of one percent, one and a half percent, or two percent growth per year. These commodity projections must be method-specific, forcing us to make certain assumptions for future method mixes.

Users by Method and Commodities Needed

Because the move toward the injectable is so strong and pervades all population subgroups it must be assumed to continue upward, but how far beyond the 27% in the 2002 Susenas survey? The highest levels reached in other countries are below that (26% in South Africa, but only 11% to 16% in Jamaica, Myanmar, Namibia, Kenya, and Thailand). For a rough calculation let us suppose that injectable use levels off at 35% by the end of five years --- that assumes the same pace of increase as over the last five years, which was slower in the first two years but faster in the last three years. With 35% at the end and 27% at the start, the average would have been 31% of all MWRA over the five-year period. To keep total prevalence at 55% the pill and IUD would together fall by 8 points to match the 8 point rise in the injectable, so they would sum to only 12% rather than their 20% now. The other methods would all stay the same. The implications for commodity needs appear in Table 4. The estimates are for supplies **actually consumed**; additions are necessary for spoilage, supplies received by clients but never used, and other wastage. (Supplies for unmarried users are entirely omitted.)

In column two of the Table, total prevalence remains at close to 55% from the start to the end of the five-year period; it is simply shifted toward the injectable and away from the pill and IUD. The increases to higher levels of total prevalence, above 55%, are applied in the final columns to show how commodity needs would increase proportionately if prevalence rose over the five years to 60%, 62.5%, and 65%. These alternatives reflect possible improvements of one point a year, one and a half points, and two points. (For the injectable the Table assumes four shots per year, but a one-month injectable is also in the market and 12 applications per year rather than four would apply.)

Summary

These simple projections capture the essentials: modern prevalence can stay where it is at 55%, or rise according to the general experience of the past and in other countries, at 1 to 2 percent a year. Population growth is a given. The method mix will quite reasonably change in the directions indicated, based upon firmly entrenched patterns that are present in every subgroup of the population. The focus is only upon commodities actually consumed, to match the figures on prevailing practices of actual use. The rest is just arithmetic, and the numbers shown are reasonable guides for future planning.

Actual needs for stocks and flows will in fact exceed the numbers shown, to allow for wastage of all types and for commodities received by clients but not consumed. Note again that unmarried users are not recognized here. Providing these large quantities of commodities will stretch both the private and public sectors. To repeat the above, 1.56 million additional users must be covered within five years just to keep current prevalence of 55% from falling.

As noted above, another set of projections under different assumptions are given in the Appendix, to explore the absolute numbers of pregnancies, births, children implicit under alternative prevalence paths, together with numbers of users and commodities.

Table 4
Future Commodity Needs for Both Public and Private Sectors

	Proportion MWRA Using	MWRA (millions)	Units/ Year	Total Contraceptives Needed with Different Assumptions (all units in millions)			
				CPR Constant at 55%	CPR Rises to 60%	CPR Rises to 62.5%	CPR Rises to 65%
Injectable Shots							
Year 1	0.270	38.7	4	41.796			
Year 2	0.350	41.7	4	58.380			
Average	0.310	40.2	4	49.848			
Total over 5 Years				249.2	260.6	266.2	271.9
Pill Cycles							
Year 1	0.140	38.7	13	70.400			
Year 2	0.084	41.7	13	45.500			
Average	0.112	40.2	13	58.500			
Total over 5 Years				292.7	306.0	312.6	319.3
IUDs*							
Year 1	0.060	38.7	0.29	0.700			
Year 2	0.036	41.7	0.29	0.400			
Average	0.048	40.2	0.29	0.600			
Total over 5 Years				2.8	2.9	2.9	3.0
Implants*							
Year 1	0.050	38.7	0.29	0.600			
Year 2	0.050	41.7	0.29	0.600			
Average	0.050	40.2	0.29	0.600			
Total over 5 Years				2.87	3.0	3.1	3.1
Condoms (pieces)							
Year 1	0.020	38.7	104	80.500			
Year 2	0.020	41.7	104	86.700			
Average	0.020	40.2	104	83.600			
Total over 5 Years				418.1	437.1	446.6	456.1

* Units/year assume average continuation of 3.5 years, so 1/3.5 or 28.6% need replacement annually

Role of Demand

Substantial proportions of married women want to stop childbearing. In the 1997 IDHS survey 46.3% of married women said they wanted no more children and another 4.3% were sterilized or infecund. Even among women with only two children half (49.7%) said they wanted no more, and two thirds (65.2%) of those with three children wanted no more (up to 82.1% of those with 6+ children). By age, half (50.8%) of women 30-34 and nearly two-thirds (62.9%) of women 35-39 wanted no more.

However the other side of this is that the two child family is by no means the norm: Over two-fifths (42.1%) of women with two children wanted more, one-fifth (22.9%) of women with three children wanted more, and one-tenth (12.6%) of women with four children wanted more. By age, 40.2% at 30-34 and one-fourth (25.6%) at 35-39 wanted more. So there is demand, but only within certain bounds.

Nevertheless current demand clearly outruns the supplies and services made available to the interested public. With one-sixth of births unwanted, and 40% of nonusers failing to implement their expressed intentions to use a method, the public and private programs have much room for improvement.

As a matter of strategy, the historical experience is that satisfying current demand is preferable to trying to enlarge demand. “Enlarge the market by satisfying the market.” A careful analysis of 26 countries, including Indonesia (Feyisetan et al. 2000), shows that by far most of the increases in contraceptive prevalence over time occurred *within* categories of fertility preference. Rather little of the rising prevalence was due to changes in fertility preferences themselves. In 24 of the 26 countries more than 70% of the overall increase was due to the within-preference component. In Indonesia the figure was a full 87%.

One comprehensive review (Freedman 1997) found that program efforts to change fertility preferences have sometimes had an effect, but the evidence is rather weak and limited. Historically, Indonesia’s strong national campaigns may have helped to lower fertility norms, but those efforts have been less prominent in recent years. In general, frontal assaults on the desired family size involve long-term measures and larger social changes, on which family planning programs per se have rather little leverage.

Contraceptive Supply and Contraceptive Security

Supply and security are not identical although they overlap greatly. Sheer presence of commodities is a necessary condition, but they should exist in a variety of methods, close to all subgroups, with good service quality. Good supply lines, good choice, and good quality, with sustainability, must be on everyone’s list of priorities to ensure contraceptive security.

That said, everyone close to the FP program will have a subjective sense of how robust the complex web of contraceptive provision is – or how fragile it is in the foreseeable future. On a scale of zero to ten, where ten is ideal, many observers might choose a number between 6 and 8. Some would prefer a lower number; nearly no one would go higher. There are two strong considerations that emerge in such a judgment. First, the system is more robust than in many countries due to the successful history here of nourishing the private sector. It plays an exceptionally large role, one that has been growing and promises to continue growing. It is profit

driven, is composed of multiple companies and networks, and will act as a mainstay of contraceptive supply.

However a counter-force threatens, that of the whole process of decentralization, now on a forced schedule of completion by December 2003. Nothing in it offers any obvious strengthening of the total picture of contraceptive supply or public education, whether for adults or the youth. Some districts already have, or will, take hold and sustain or even improve the public programs, but equally, others will do business as usual and some will do less. The principal worry concerns the interruption of supply flows from BKKBN; opinions differ on this but some observers anticipate the possibility of disruptions and consequent falloffs in actual use, probably temporarily. Only the future will tell, but it seems wise to hedge against the possibility by careful advance planning.

Some considerations argue against the possibility of shortfalls. First, at the March 7 donors meeting BKKBN presented figures indicating that its stocks are sufficient through the end of 2003, when decentralization should be relatively complete, and some donor interest will continue. Second, BKKBN will continue to have some resources of its own to purchase additional stocks (assuming that “*badans*” in the ministry system continue to exist). And third, shortfalls in BKKBN supplies would most likely be filled in over time by the private sector and by some districts using their own funds. All that is somewhat reassuring about the dangers of decentralization – though wild cards are not absent.

This suggests a picture of contraceptive security that could be far worse, and which possesses some definite strengths. The problem is that on net it promises more of the same. Avoiding a collapse is good, but there is an intense need to provide more extensive security in the larger sense, with better choice and better quality, to more of the needy population. Prevalence at 55%, rather than the 75% that eliminates most unwanted pregnancies, abortions and births, leaves a regrettable gap in the Indonesian system. And no major force in government or the private sector offers to shift things toward that higher level.

In the best of circumstances such a shift takes time. As described above, international experience shows that raising prevalence by one to two points a year is the common record. Even two points a year will require ten years to move from 55% to 75%, and one point a year will require 20 years. Meanwhile population growth will be very large.

Discussion

1. The prospects are more favorable for maintaining the present level of prevalence than for raising it. The exceptional role of the private sector gives a base, and the system is likely to survive the decentralization-adjustment period as the private sector moves into the gaps left by BKKBN. However raising prevalence substantially appears unlikely in the absence of a strong central force, and the private sector lacks any built-in interest to go beyond the easily visible market possibilities. The entire system is fragile by being so dependent upon incessant resupply methods, without the automatic continuity afforded by long-term methods as used in other countries. If contraceptive security means assured access to both long-term and short-term methods by the whole population, there are substantial shortcomings.
2. All that is unfortunate, since a large, unsatisfied market is present. One-sixth of births are unwanted or ill-timed, plus all the unwanted pregnancies that end in abortion. And even though reported unmet need was only 9.2% in the 1997 IDHS survey, that omits all the women who say they want a child within two years (which excludes them from the unmet need definition) but who also say they intend to use a method within the next year. It is the

lack of services and outreach that primarily constrains prevalence increases, not public interest. So, contraceptive security in the larger sense is only middling – many needy couples are left out; many more have only one or two choices with indifferent services, and some current users are on methods they do not particularly like. Given the method mix, the numbers of contraceptive failures in actual practice are substantial.

3. None of the data show any fall-off of contraceptive use during the economic crisis. That is probably because donors gave emergency supplies during the crisis, people were already buying in the private sector with prices low (except temporarily), and the crisis didn't actually hit parts of the population.
4. For contraceptive security, current prevalence of 55% can be maintained by increasing users, and commodities, by about 1.6% a year, to match population growth. That will place less strain on supply lines than the prospect of prevalence rising by even one point a year, to say 60% by 2008 (see "Projections" section).
5. The take-off of the injectable is astounding; it now covers half of all users and over a fourth of all married women in the country – a world record. It shows the dynamism of the system here and how it blends provider inclinations with public preferences. Clearly, both sides are sympathetic to it. However it has not changed total prevalence of use. It is not entirely healthy for the method mix to become overly unbalanced, and the mix is weak on all the long-term, low-failure methods of the IUD, implant, and sterilization. International data show that prevalence rarely reaches even the mid-sixties without sterilization having an appreciable share of it. The resupply methods suffer from the "churning" of users moving in and out of practice, which places a ceiling on total prevalence. The lack of a truly viable sterilization program throughout the country is a serious weakness.
6. That in turn helps keep prevalence flat, which the Susenas series to 2002 documents. And there is little prospect of a change. BKKBN's energies will most likely diminish and be re-oriented, and the private sector will not engineer a fundamental improvement in outreach, method mix, or services. The main handles are those of policy improvements, stimulation to commercial activity, and the usual range of the important things that the government and their international and domestic partners must keep at. Those are now needed all the more.
7. There has to be a severely disadvantaged group at the very economic bottom, and also in remote areas especially in the Outer Provinces. The available quintiles and other survey categories are too crude to isolate that group in the data. One careful estimate is that this group constitutes about ten percent of the population, which is not trivial. For them, public services are needed, and BKKBN can help push the districts involved to do better. Also, there should be ways to encourage private sector expansions for them.

Future Steps

Several suggestions concern monitoring and research:

- a. Isolate the most disadvantaged subgroups in the population by closer survey analysis: by province, rural/urban, education, and economic status. This has not yet been done – to determine whether prevalence of use is very low in rural and remote areas of the few provinces having the worst conditions, combined with other correlates of low use and greater need. The large Susenas data sets can support such work.

- b. Exploit the new IDHS as an independent check on the time trends for prevalence, method mix, and source of supply, both nationally and for the main subgroups.
- c. Constantly examine the decentralization process since there is so much uncertainty on what may happen.
- d. Keep close tabs on supply flows to know early if there are serious shortfalls in the evolving BKKBN system or any unexpected disruptions in the social marketing or commercial flows.
- e. Orient attention to what's happening in the districts. E.g. BKKBN has gotten figures on the increasing numbers of districts that are establishing their own family planning units – that kind of tracking is very important, along with any information on the likely staffing and functioning of the units. (The HKI study is one resource, but additional investigations would be useful.)
- f. Monitor prices in both private and public systems to know if/when important changes occur during the decentralization adjustment period.
- g. Research the roles of the private *bidans*, since they have steadily grown as a vital part of the supply system. Little is known about their own sources of supply, their cost structures, and their other modes of operation. For example, can they be influenced to provide a better balance of methods, including the IUD?

Other steps concern policy issues.

- a. Identify policy measures available to the central government or to the biggest provinces that can enliven the private sector further.
- b. Consider specific policies in support of the roles of private *bidans*.
- c. Explore the freedom to market pills at the retail level. Can the pill be removed from the ethical drug list?
- d. Continue to expand access to sterilization (VSC) to help correct the badly unbalanced method mix.
- e. Examine unused channels through Depkes for contraceptive distribution.
- f. Consider how services can be authorized and implemented with greater vigor to youth and unmarried women.

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APPENDIX

OUTCOMES FROM THREE PROJECTIONS FOR CONTRACEPTIVE PREVALENCE

Contraceptive prevalence in Indonesia may rise or fall, or may continue at the present level. What does that mean in terms of numbers – demographic and programmatic? Projections follow that encompass more detail than those in the text, which concern only users. These are from a full population projection including the age-sex distribution and fertility and mortality assumptions. This also embraces a set of program characteristics for prevalence, method mix, and failures, with outcomes for demographic results and commodities needed.

The purpose is to show the implications of three assumptions concerning the future path of contraceptive prevalence. (1) Assume it remains flat at the value of 57.4% (taken from the 1997 IDHS; the Susenas data indicate no change since then; also the 57.4 includes a small share of traditional methods). (2) Assume prevalence rises at one-half point a year, so over the 15 years to 2015 it reaches 64.9%. (3) Assume instead that due to various difficulties prevalence instead falls at one-half point a year, so over the 15 years to 2015 it declines to 49.9%. Historical experience in other countries shows an increase of one-half point per year to be quite modest (2% is in the high range), but given Indonesia's plateau for about five years running, a sustained increase of one-half point in the near future would be favorable.

The initial total fertility rate is set at 2.6 as of 2000. Selected fertility determinants other than contraceptive prevalence are held constant, including the method mix (taken from the 2002 Susenas), the proportion married, the length of breastfeeding, and the total abortion rate. Details are footnoted.³

The essential results are as follows for each of the attached figures.

1. Paths of prevalence: Figure 1 simply presents the change in prevalence under each assumption.
2. Children aged 0-4 (Figure 2). In the first five years (2000 to 2005) the number of children does not change sharply since many are already born at the outset. But after that, contraceptive prevalence matters greatly: by the year 2010 there would be 6 million more children if prevalence falls than if it rises, or 3 million more if it remains flat instead of rising. By 2015 the range is nearly 10 million more children across the three assumptions. That is well above the total population of many small countries.
3. The number of pregnancies (Figure 3). Pregnancies do not decline much even with rising prevalence since they also reflect population increase of 1.6% per year. However falling

³ These projections are made using the DEMPROJ and FAMPLAN software contained in the Futures Group SPECTRUM package. The initial age-sex distribution and the proportions of women married come from the 2000 census. The schedule of age-sex specific mortality rates is from the UN model life tables. The TAR (total abortion rate) is set at 0.5 (women have half an abortion average over their lifetime, translating to about 12% of pregnancies being aborted.) The method mix is from the 2002 Susenas and is held constant. The method effectiveness values are from the 1997 IDHS. By keeping these parameters fixed the effects of the three alternative prevalence paths are clarified for pregnancies, births, users, etc. without interference from changes in other factors. In general, setting the above parameters at some different values would not much affect the patterns of prevalence change.

prevalence matters greatly: in the fifth year some 900,000 more pregnancies occur than with rising prevalence, or 500,000 more than with constant prevalence. The difference grows to 1.8 million more by the 10th year, and 2.8 million more by 2015.

4. The number of births (Figure 4) follows a similar pattern – a rather modest decline even with rising prevalence but a very sharp increase with falling prevalence. (Because most births survive, and occur in each calendar year, the much larger numbers for children aged 0-4 emerge in Figure 2.) By 2015 some 2.4 million more births occur with low prevalence than with high prevalence, half again of all births at the outset (4.8 million). All services related to births and children would have to be that much greater just to stay even, without any improvements in quality.
5. The number of contraceptive users (Figure 5) and the subsequent charts behave in opposite patterns from the above. Under rising prevalence the numbers now become larger rather than smaller. Total users, or users of any method (under the assumption used here of a constant method mix) all increase with population size, and that affects the trends along with the prevalence trend. Total users, starting at 22.2 million, grow to 23.1 million in five years even if prevalence falls, due just to population growth. With rising prevalence, users increase to 25.2 million, and in ten years to 27.7 million, equaling a fourth more than at the start.
6. Injectable supplies (Figure 6) increase to quantities that can hardly be grasped in absolute numbers, with one-half of all users in the country relying upon them. With flat prevalence the number of injections (all assumed for simplicity to be the 3-month variety⁴) increase from about 44 million annually to over 47 million in five years, or to nearly 50 million if prevalence rises. By the tenth year the high number is over 54 million annually. Note again that this assumes an unchanging method mix; if injection prevalence continues to rise above the initial 27%, toward the assumption of 35% by the fifth year as in the text table, that adds a factor of 30% (35/27).
7. Pill supplies (Figure 7, for number of cycles) follow the same patterns as the injectables do, given the constant method mix. Even with falling prevalence there is little decline in needed supplies, due to population growth. Under rising prevalence the number of cycles increases very sharply.
8. IUD supplies (Figure 8) involve rather modest numbers both because IUD prevalence is low and because each IUD lasts about 3.5 years. Population growth nearly offsets the effect of falling prevalence, holding up the bottom line. Under rising prevalence IUD supplies increase by about 100,000 by the fifth year.

An overview is contained in the following table.

⁴ The numbers are larger if the one-month injectables are considered.

SUMMARY TABLE FOR PREVALENCE PROJECTIONS

	Prevalence Trend	2000	2005	2010	2015
MWRA (millions)		38.7	42.0	44.4	45.8
Percent Increase			8.5	14.7	18.1
Pop. 0-4 (millions)	Down 1/2 pt/yr	20.8	24.7	27.5	29.7
	Flat	20.8	23.6	24.5	24.8
	Up 1/2 pt/yr	20.8	22.6	21.5	19.9
No. of Pregnancies (millions)	Down 1/2 pt/yr	6.5	7.4	8.0	8.6
	Flat	6.5	6.9	7.1	7.2
	Up 1/2 pt/yr	6.5	6.5	6.2	5.8
No. of Births (millions)	Down 1/2 pt/yr	4.8	5.5	6.0	6.5
	Flat	4.8	5.1	5.2	5.3
	Up 1/2 pt/yr	4.8	4.7	4.5	4.1
No. of Users (millions)	Down 1/2 pt/yr	22.2	23.1	23.3	22.8
	Flat	22.2	24.1	25.5	26.3
	Up 1/2 pt/yr	22.2	25.2	27.7	29.7
Injectables* (millions)	Down 1/2 pt/yr	43.7	45.3	45.7	44.9
	Flat	43.7	47.4	50.1	51.6
	Up 1/2 pt/yr	43.7	49.5	54.4	58.3
Pill Cycles (millions)	Down 1/2 pt/yr	73.7	76.5	77.2	75.7
	Flat	73.7	80.0	84.5	87.1
	Up 1/2 pt/yr	73.7	83.5	91.9	98.5
IUDs (millions)	Down 1/2 pt/yr	0.9	0.9	0.9	0.8
	Flat	0.9	0.9	1.0	1.0
	Up 1/2 pt/yr	0.9	1.0	1.1	1.1

*For 3-month injections

Figure 1.
Three Projections of Contraceptive Prevalence

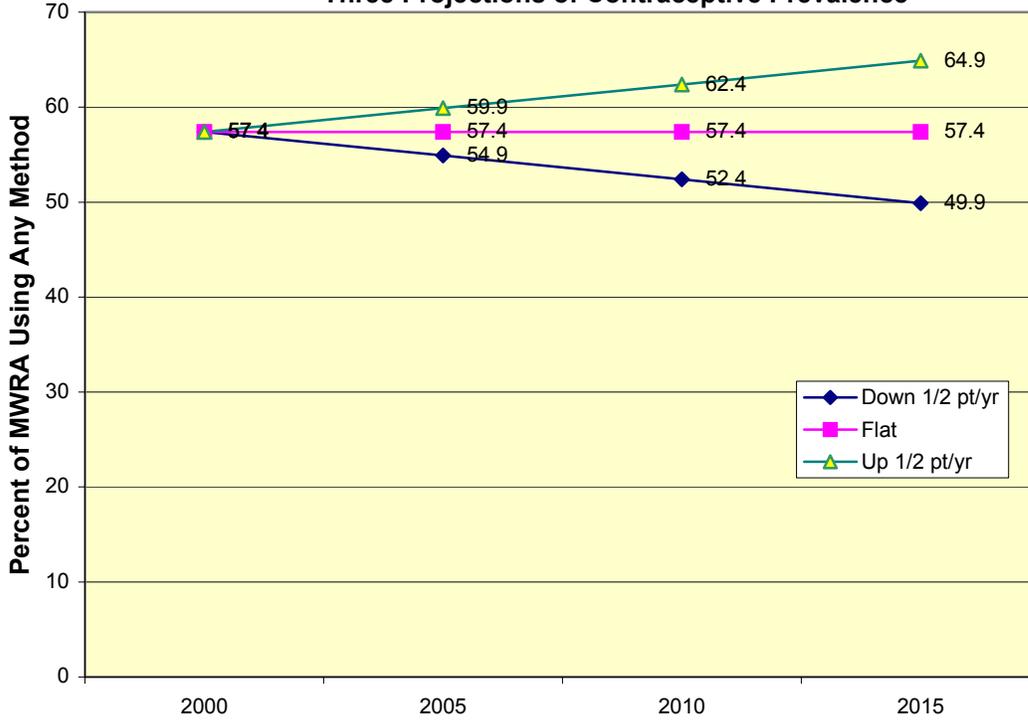


Figure 2.
Children Aged 0-4 (Millions)
Under Three Projections of Contraceptive Prevalence

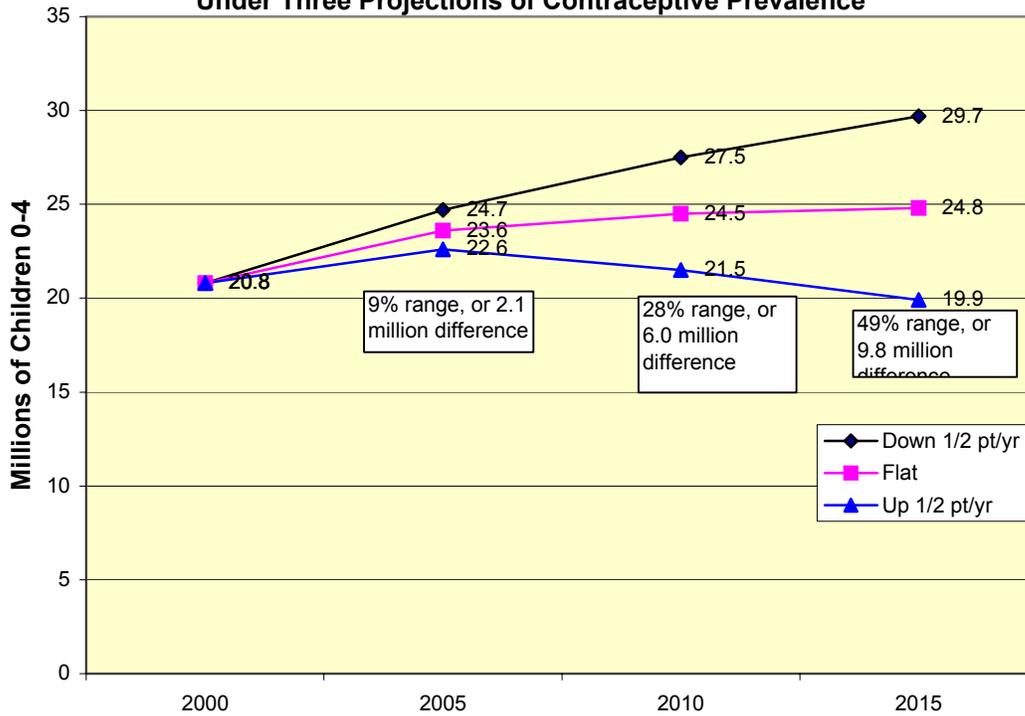


Figure 3
Number of Pregnancies
Under Three Projections of Contraceptive Prevalence

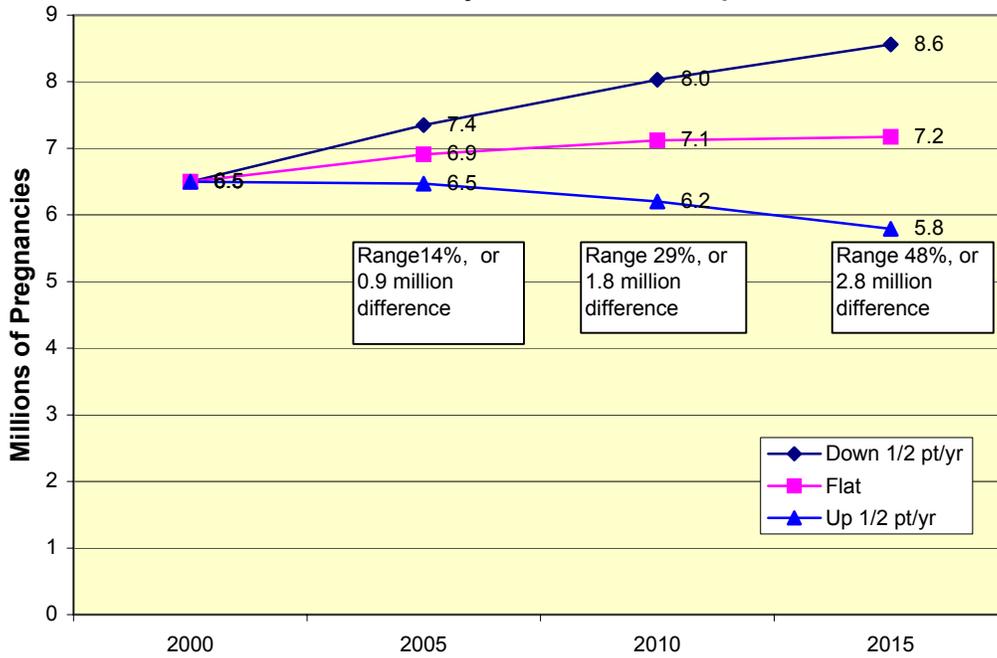


Figure 4
Number of Births
Under Three Projections of Contraceptive Prevalence

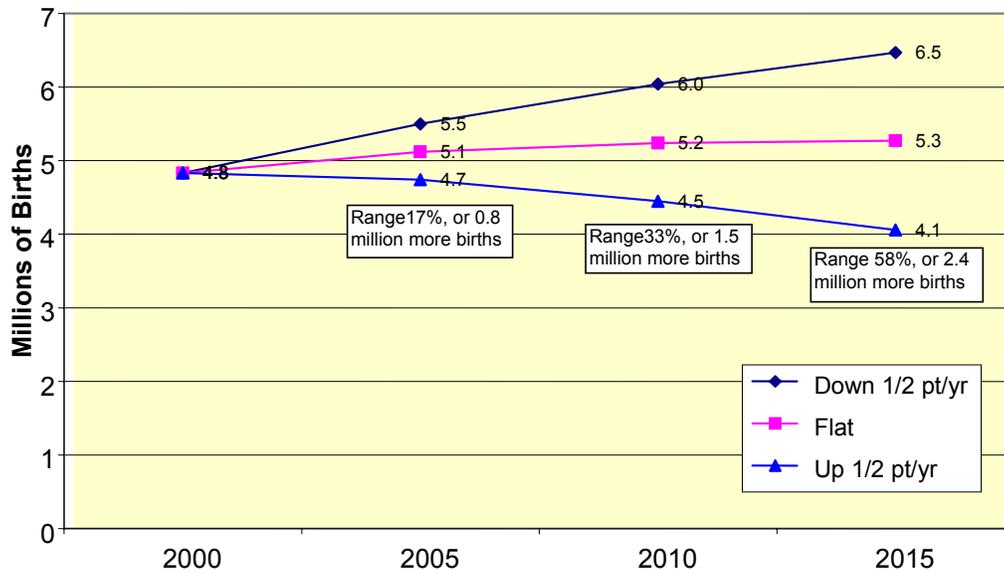


Figure 5
Number of Users
Under Three Projections of Contraceptive Prevalence

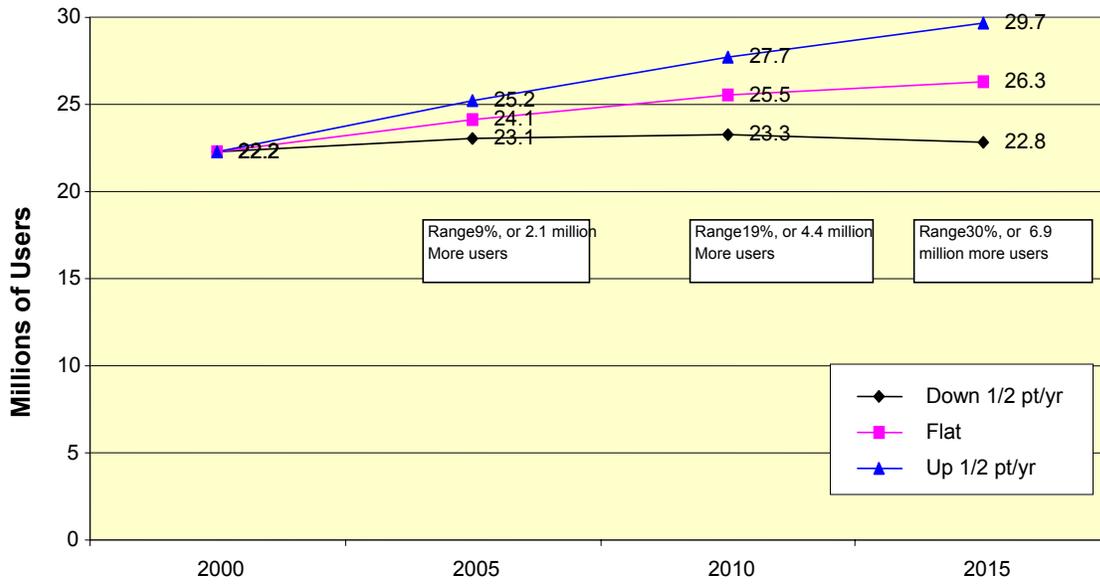


Figure 6
Number of Injectables
Under Three Projections of Contraceptive Prevalence

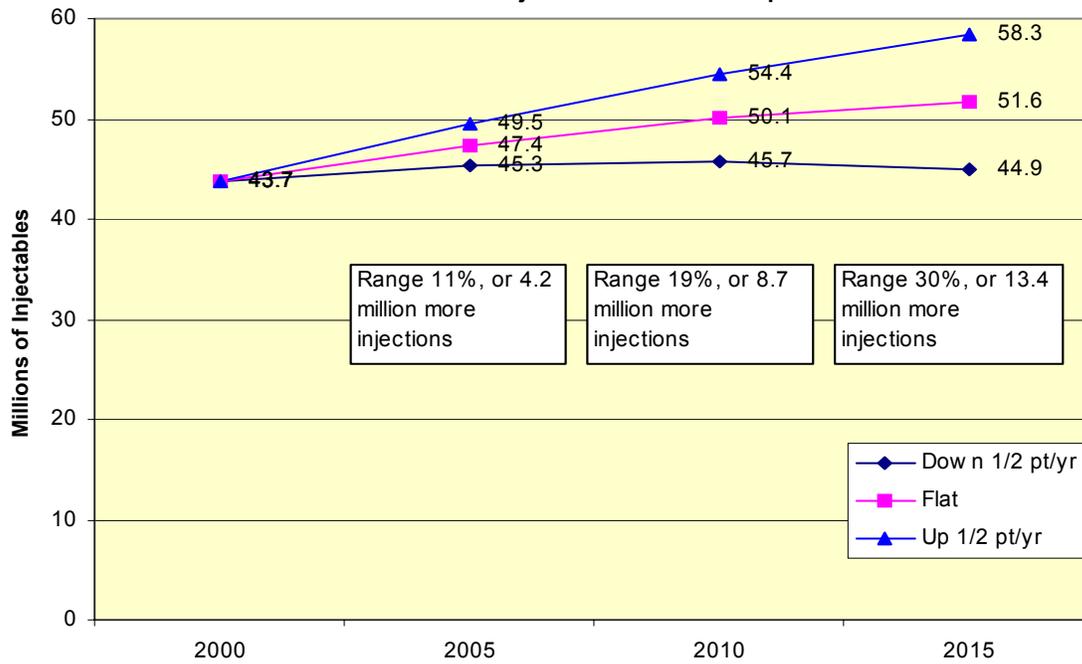


Figure 7
Number of Pill Cycles
Under Three Projections of Contraceptive Prevalence

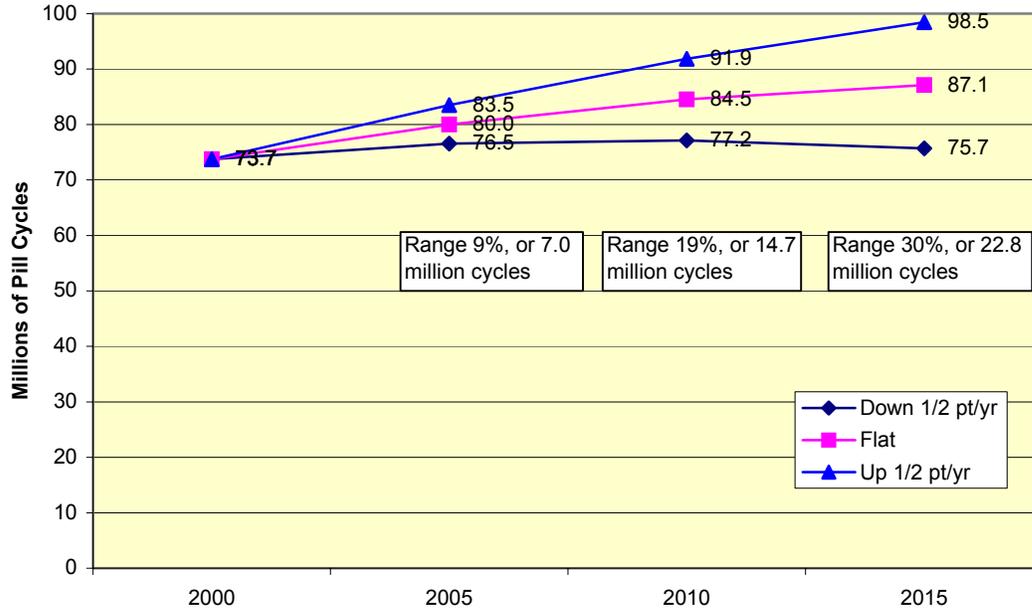


Figure 8
Number of IUDs
Under Three Projections of Contraceptive Prevalence

