

No Need for Unmet Need

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I learned that the title of the my presentation was to be "The Unmet Need for Contraception." This was not exactly what I had in mind, but the challenge has provoked me to put down together on paper a number of arguments about "unmet need" for contraception that have been floating around in my head for some time. Bluntly put, I feel "unmet need" is neither a viable or a useful concept. While perhaps "unmet need" is useful for advocacy, a not entirely illegitimate activity, one needs to be careful not to read one's own press clippings. I will structure my presentation around the five ways in which "unmet need" is flawed; analytically, empirically, as a as a guide to public policy, as a predictor of demographic impact, and even as a guide to family planning policy. I will address each of these five issues in turn.

I) Analytically

By its failure as an analytic concept, I mean simply that there is no coherent sense in which the reported figures on "unmet need" actually represent a need that is unmet. There are two broad aspects to this criticism, first, that the need in "unmet need" is attributed by others to women, not expressed by women themselves and second, it is not clear that what is lacking constitutes a "need" by any reasonable definition in any case.

Not expressed. In the hierarchy of terms to represent desires a "need" usually ranks much higher than a "want" or than "demand" (which a want backed by willingness to pay, which is a combination of intensity of preference and income). However, unmet need includes many many women who have no want or desire to use birth control. After the questions on "unmet need" many of the questionnaires also ask women why they are not using birth control. The answer often reflects a very real lack of desire to use birth control. The clearest example is those women "religious" objections to the use of birth control.

Let's think of a analogous calculation, one in which a person's protein requirement were calculated and then an outside expert decided on the best source of supply for that protein. One could easily then calculate the "unmet need" for pork for Jewish and Muslim people or the "unmet need" for beef amongst Hindus. I think all would agree that such a use of the phrase "need" would be misleading and unhelpful, if not downright offensive.

I hesitate to use this example even though it is the clearest, as my main point is emphatically not religion. The main point is whether or not people's preferences and judgements are to respected or dismissed. Naturally as a professionally trained economist I am very much a defender of consumer sovereignty and hence bridle at suggestions that people "need"

things they have knowingly made a choice not to consume. Now, have women and/or couples made a knowing choice not to consume? I would argue that, by and large, the answer is yes, to which there are two objections.

The first is that the choice is not a "knowing." I think here the data are clear that family planning knowledge is widespread. Certainly people are not perfectly informed about contraception, but then I am not fully informed about entire ranges of products I may someday wish to consume, like sports cars, stereo amplifiers, or gardening instruments. A certain, and probably large, degree of ignorance is the consumer's optimum. For instance, I do not drink coffee. I therefore do not know anything about coffee types, coffee beans, coffee makers, coffee mugs, or even coffee cake. Should my ignorance of all things coffee be taken as the cause of my lack of consumption of coffee or is my disinterest in coffee the source of my ignorance? I read the survey evidence as suggesting women are by and large surprisingly well informed about contraception, in many cases ten times as many women know about contraception and where to obtain it than are actually using it.

Second, it whether it is a "choice." Here some would argue that people "cannot afford" contraception so choice is irrelevant. I think that, by and large, that just isn't true. Contraception is just not that expensive relative to other non-

necessities in household budgets. So while it may be true that certain of the poorest in the poorest countries have not choice, this is not true on average across countries or on average across individuals in any country. I have this table which shows that on average households, even poor households, spend 2 to 3 percent of their income on tobacco products. If the household can afford tobacco the household can afford contraception. Now this of course raises the issue about the claims to resources within the household, but let's defer that issue until later.

Table 1: Fraction of household expenditure on tobacco in some developing countries.			
Country	Year	Share of tobacco in total consumer expenditure:	
		Average	Poor households
Indonesia	80	5.8%	4.6%
Sri Lanka	80/81	3.4%	3.9%
India	83	3.0%	3.1%
Pakistan	79	2.6%	2.2%
Argentina	69	2.4%	3.8%
Philippines	85	2.3%	2.3%
Nepal	73/75	2.3%	3.0%
Chile	77/78	2.1%	2.2%
Uruguay	82	1.8%	2.4%
Bangladesh	81/82	1.7%	1.3%
Senegal	75	1.5%	0.6%
Brazil	74	1.5%	2.0%
Korea	81	1.2%	3.3%

Zambia	74/77	1.1%	1.4%
Guatemala	79/81	0.9%	0.9%
Average		2.2%	2.5%

Notes: a) Data taken from FAO, Review of food consumption surveys, various years. b) tobacco expenditure for includes paan for India. Data for Chile is Gran Santiago only and for Senegal is Dakar only.

The very phrase "unmet need" conveys an impression that women have expressed a desire for contraception, which is just not true. They have expressed some desire not to have a child immediately and are not now using contraception. The classification of this combination of circumstances as a "need" suffers from three problems.

First, no intensity of the desire to avoid a child is expressed. That is, if someone were to ask me, "would you like an ice cream cone now" I might say "no, thank you" (I am polite). But if someone were to ask "if I gave you an ice cream cone now would you eat it and enjoy it?" I would say, "yes, thank you." When women say they do not want a child now versus wanting one later, or within two years, or whatever, it is not clear what intensity of preference is being expressed.

Second, to classify this as a personal "need" ignores all other preferences the woman might have. She might not want a child but also, for some reason, might not want to use contraception (the bother, the side effects, whatever). Not allowing women to say whether or not they want contraception but classifying their "need" for contraception based on just one

question about fertility does not allow women to speak for themselves. Many women classified with "unmet need" are no longer using contraception and do not plan to use it even though it is available and they could afford it. I find saying these women have a "need" for contraception condescending in the extreme.

Not a need. The second major analytical criticism of "unmet need" is that it is not clear what the "need" is. That is, "unmet need" is often expressed in phrases like "the women who need contraception in order not to have unwanted children" or some such. Now it is obvious to anyone in a public health program (or who had 10th grade biology class) that unless one has sex, in fact a particular kind of sexual activity, coitus, at a specific time in the woman's cycle then one will never have any children, wanted or otherwise. Contraception is a very effective technology for having unregulated coital activity and not having children but no one *needs* contraception in order not to have children. There is no question you need a parachute to jump out of airplanes and not suffer serious injury, but does that mean you *need* a parachute? Well, the need for parachutes is obviously only as great as the need to fling oneself out of planes, which is pressing if you're in the 82nd Airborne, but not really otherwise.

Now, if one is to argue that you "need" sex, then I think we are into some serious confusion because sex is something you want

(which things, as we all know, you can't always get). In fact the only sense in which sex is a "need" is from a species specific biological perspective, that the species "needs" sex to perpetuate itself. But then that is obviously a complete inversion to argue from that need for sex to perpetuate the species back to a need for contraception based on a need to have sex and not have kids.

I have argued elsewhere extensively about the relationship between sexual activity and the valuation of contraception so I won't revisit this issue, except to point out two things¹. First, the frequency of sex is not that great for it to have such tremendous value so as to qualify as a "need." In most developing countries frequency appears to be one to one and half times a week, which implies that large of changes in activity are not needed to avoid contraception (whether or not people actually do this is a entirely different question). Second, a subsidy to contraception is conceptually a subsidy to sexual activity, not to the act of not having children. I am not arguing that sex is not a good thing, or a thing that people want, or want a lot, but relative to other things that people also want like food and shelter and medicines I am very reluctant to classify unregulated sex as a need.

¹ "Population and Copulation" presented at the 1995 PAA meetings.

Table 2: Frequency of sexual relations in various developing countries			
Country	Year	Average frequency of sexual relations of currently married women in the last month	Fraction of women reporting no sexual relations in the last four weeks
Brazil (Rio)	1986	7.8	6
Ecuador	1988	4.4	
Sri Lanka	1988	4.1	22
Mexico	1987	5.1	
Cote d Ivoire	1992	2.0	42
Tanzania	1992	4.4	26
Thailand	?	4.3	14
Togo	1992	1.5	34
Singapore	?	3.4	13
Philippines (Manila)	?	2.5	21

Source: Various DHS surveys, Rutenberg and Blanc, 1991, and Carael, Chapter 4 of Cleland and Ferry, 1994.

So, if "unmet need" is an analytically useless concept, what would be its analytically correct analogue? Not surprisingly I would argue that the economists workhouse "demand" would serve the legitimate purposes quite nicely. The counterfactual question that "unmet need" seems to be after is "if conditions were different (in some unspecified way) then some fraction more women would use contraception." This is of course, exactly what

economists think about when we ask, "if the price of potatoes were lower by x percent how many more potatoes would people buy?", or "if income were higher by y percent how many more cars could be purchased?" This is also exactly the question businessmen and marketers worry about with a huge range of consumer products "if I run an ad campaign using Michael Jordan how many more kids will buy my product."

"Unmet need" is the analogue of asking not specific questions like the above, but what is the maximal possible extent of the market. Say I am in the business of selling men's loafers. Then I could define the extent of my market as all males and then measure my sales relative to that number. It is clear however that that only establishes what is likely to be an extremely overstated upper bound. Not all men are of the age to buy men's shoes, not all men buy any kind of dress shoe, and not all men who buy dress shoes ever buy loafers. It seems much more reasonable to ask what the possible market penetration given feasible actions than simply measure market penetration relative to some absolute and unachievable standard.

II) Empirically

After reading the specifics of "unmet need" calculations, it is hard not to come away with the impression that these numbers are as high as possible. There are three things in particular

that I find somewhat dubious and that suggest the figures are inflated.

First, I find it very revealing that when the concept of "unmet need" is applied to data from developed countries, the numbers are very large. The most recent report from the Alan Guttmacher Institute lists "unmet need" for France, the US and Japan, these numbers are shown in table 3. Now certainly in countries like these developing countries all the arguments about knowing choices are clear, there are almost no barriers to access to some form of contraception, and yet this "unmet need" thing is very high. Nearly as high as in many developing countries, which is really surprising given the enormous differences in income levels. I would propose that as a reasonable estimate of the degree of "unmet need" that can possibly be addressed it should be assessed relative to a level that is achieved in more or less optimal circumstances (although we can return below to why India should have widespread malnutrition but devote resources to achieving the same consumption of contraception as the US).

Table 3: Unmet need" calculations in developed countries and in developing excluding pregnant and amenorrhic women			
Country	"Unmet need"	Excluding pregnant and amenorrhic	Excluding P&A and sexually inactive
France	13		

Japan	17		
USA	10		
Developing countries			
Ghana	35.2	23.1	15
Uganda	27.2	24.7	17.9
Bolivia	35.7	28.6	18.4
Guatemala	29.4	24.3	17.2
Peru	27.2	20.8	15.1
Sources: Developed countries: Alan Guttmacher Institute, 1995, Developing Countries, Ochoa and Westoff, 1991.			

Second, I have met very few people who have read casually about the large "unmet need" for contraception who are not surprised, if not shocked, to find out that in high "unmet need" countries as much as a third to one-half of "unmet need" is among women who are either now pregnant or are in post-partum insusceptibility. We can talk about the reasons why one might want to create a category for women whose pregnancies were mistimed or unwanted and worry about them, but to lump them into "unmet need" I find downright misleading for a very simple reason. When the numbers are reported they are typically spoken of in the present tense as the number of women who presently have "unmet need." This implies a current flow demand, some indication of the number of women that would be using contraception in at least some conceivable circumstances. Women who are now pregnant simply are not in the category of those that now have unmet need.

Maybe they did before and maybe they will in the future, but right now they do not have "unmet need" for contraception. The table shows the "unmet need" numbers excluding pregnant women in a few countries compared to those (total, so I'm cheating but I can't help it I don't have the breakdown) of the developed countries.

Third, many women are, or believe themselves to be, insusceptible to pregnancy and are included in the measures of "unmet need." When one examines the list of reasons why women who do not want children are not using contraception two reasons often figure "difficult to get pregnant" or "husband away" or "infrequent sex" some such perfectly rational reason why a woman would not use contraception. For instance, in the Philippines 23 percent of women not using contraception who don't want children fall into this category, in Ghana this is 40 percent. I haven't been able to figure out the classification used for classifying women as infertile for "unmet need" calculations, but I am pretty sure that in many cases it does not correspond to their own assessment.

III) As a guide to public policy

So, forget what I have said about the analytic and empirical foundations. Say we know that 25 percent of women in country X have an unmet need for contraception. Does this give tell us

anything useful that could serve as a guide to public policy? Does that suggest anything about the allocation of public resources? The answer is no, for three reasons.

First, in poor countries there is unmet need for everything. Table 4 shows for some representative countries the fraction of women with "unmet need" for contraception, the fraction of children under 5 who are malnourished, the fraction of children receiving all vaccinations, and the infant mortality rate. The simple point is that what being poor means is that your command over resources is small. If your command over resources is small then you will lack many things, including many which are honest to goodness needs. Therefore, the "unmet need" for contraception creates no special claim for the use of publicly mobilized resources to meet that "unmet need."

Country	Unmet need for contraception (fraction of women)	Unmet need for food (Fraction of under 5s stunted)	Unmet need for vaccinations (fraction 12-23 months with all vaccinations)	Unmet need for child health. (Under 5 child mortality)
Bolivia, 1994	24.3	28.3	36.6	116
Peru, 1991/92	16.2	36.5	57.7	92
Malawi,	36.3	48.7	81.8	240

1992				
Ghana, 1993	38.6	26	54.8	133
Egypt, 1992	20.1	24.4	57.2	108
Source: Various DHS surveys.				

Second, from an economist's viewpoint, what does create an analytical claim to be a desirable use of publicly mobilized resources? The use of the phrase "publicly mobilized resources" gives a hint. In order for the public sector to spend resources it must first take them away from its citizens. How can a government take money away from its citizens and then return it to them and leave society better off? There are two broad possibilities; distributional and efficiency.

The government may be able to take taxes from the rich and give that money to the poor and most of us would feel that made things better. This might lead one to suspect that tax money devoted to the subsidization of contraception would eliminate the "unmet need" and hence be a distribution enhancing transfer. However, the very differentials of "unmet need" as well as much other evidence suggest that the subsidization of contraception would be a very bad instrument to choose if one wanted to make the poor better off, for the simple reason that rich, educated, urban women use more contraception than poor, uneducated, rural

women². This implies the incidence of family planning expenditures would mainly be on the rich, not the poor³. Now one could, in theory, then target the subsidy to family planning to improve its incidence, but that would still leave the question for why the subsidy to contraception in the first place rather than to nutrition or child immunizations or public employment schemes or direct money transfers to the poor.

² The evidence from Indonesia (van de Walle, 1994) is that the expenditure elasticity of birth control expenditures is 1.7. The other correlations are confirmed by the tables in (I would guess) nearly every DHS of contraceptive use by characteristics.

³ There is a widespread confusion that if something is widely consumed by the rich and not by the poor then it would be equitable for the government to spend money to equalize consumption. However, almost exactly the opposite is true. To pick a good to subsidize for poverty reduction one wants to pick a good that the poor consume almost as much as the rich, like potatoes or cassava, not a good where the consumption of the poor is very low relative to the rich, like caviar.

The other way government's can improve things by taxing and spending is that, even if the spending is distributionally neutral, the government pattern of expenditures is more efficient. In order for this to be true for spending on a particular commodity, there has to be some underlying failure of the coordination of individual's decisions that economist's would refer to as a "market failure." As far as I can make out there is no significant failure in the market for contraceptives that would justify their subsidization⁴.

Let me address one particularly crude mistake on this score that is being spread about, partly because it appeared to some to be what the 1993 World Development Report on Health was saying, and that is that subsidization of contraceptives is justified because it is a "cost effective" health intervention. This however, fails to make the simple and absolutely critical distinction between something that is "cost-effective" as a medical intervention and something that is "cost-effective" as a public sector intervention. Just because aspirin relieves your 10 dollar headache for 10 cents, and hence is a cost-effective medical treatment does not mean that the subsidization of aspirin

⁴ One can always concoct market failures that are somehow related to contraception, like women lack access to credit markets or that there are failures in the market for information about contraception. But these indirect arguments will fall prey to the general "instruments-targets" literature in economics that the intervention is best aimed at the market that fails. The realm of the second best is a last refuge in which anything can be justified. See my "Family planning, reproductive health, and some economics."

is a desirable public policy. Rather, public sector spending should be judged based on the outcome with the public sector spending relative to what would have happened in the absence of the public sector spending. This leads one exactly back to a search for market failures and back to the point that, from an economist's viewpoint about health (not demographic) impacts, the pill is exactly like aspirin.

That is, it is exactly like aspirin unless the social benefits from a child are less than the private benefits. In this case, kids are like litter, they have negative externalities and government action should be brought to bear to discourage parents from having kids. But, and this is the third point, "unmet need" is then irrelevant anyway. That is, say there were negative externalities to kids and when we asked women there was zero "unmet need" for contraception, that is they were using modern contraception to have exactly the number of children they wanted. Would this mean that one wouldn't want to undertake public policies to lower population growth anyway-- yes of course. Then women's "unmet need" is irrelevant to the case for public subsidization of contraception⁵.

⁵ Of course this returns again to the PR use of "unmet need." That is, "unmet need" is used to argue that efforts to limit population growth are not trying to convince people to not have children they would otherwise want (even though doing exactly this is of course the logical implication of all arguments about the negative effect of population growth) but that they really don't want to have these kids anyway.

IV) As a demographic indicator

It is often argued that a) population growth should be lower to increase human welfare and that b) "unmet need" exists and c) reducing "unmet need" will help reduce population growth. Because of the analytical flaws in "unmet need" it is not surprising that "unmet need" is just not that much good in predicting levels of fertility and the potential for population reductions from reducing "unmet need" is extremely limited, for three reasons.

First, from regressions I have run elsewhere I can show that the impact of fertility of reducing "unmet need" is quantitatively quite small⁶. Table 5 shows that, holding desired fertility constant (which is unarguable correct if we are talking about "unmet need") then reducing "unmet need" by ten percentage points would lower fertility by only a half a birth. The cross-country estimates in table 9 together with reference the figures on "unmet need" in table 5 can illustrate the impact of a very large reduction in "unmet need". In Ghana, if "unmet need" were reduced by a third, from 35 percent to 23 percent, or 12 percentage points (which is actually more the total estimated access related non-use of 7 percent), this would reduce fertility only from 6.4 to 5.7. This result is intuitively quite plausible

⁶ See my "Desired fertility and the impact of population policies."

as Ghana's DTFR is 5.4 and 90 percent of births are wanted.⁷ The evidence of substantial "unmet need" for contraception is thus compatible with a practically quite small (although statistically quite significant) effect of contraceptive access on fertility

Second, there is only so far that policy can feasibly lower "unmet need." Let's take 10 percent as the feasible lower limit for "unmet need" in developing countries as it is currently measured. This is far too optimistic in most countries in anything like the medium run, but let's be generous. Then many countries are just not that far above the minimum value of "unmet need" for these reductions to account for much of the total in terms of fertility reduction, even if it is 30 percent this is only about a one birth (in countries where TFR is now between 5 and 7).

Table 5: Estimates of the impact of "unmet need" on TFR from cross sections.

	Coefficient	t-stat	N	Incremental R2
"Unmet need"	.056	6.8	25	.056
Percentage of total contraceptive demand satisfied	-.036	4.4	25	.039
Percentage of currently married fecund women not wanting more children not	.141	8.91	25	.064

⁷ Since $.9 * 6.4 = 5.7$, this implies that all unwanted births would be eliminated, which suggests that even this modest reduction in TFR is likely to be an overestimate or that such a reduction in "unmet need" is not feasible.

Third, as a global issue for population reduction there is the basic fact that "unmet need" happens to be very low in the largest countries. It is very low in China, India (around 11), Indonesia (16), and I would guess, Bangladesh (though I haven't seen the DHS numbers yet). So while reduction in "unmet need" may have played a role in the fertility transition so far, there is simply not that much scope since it is the evolution of the populations of the large countries that determines, by and large, the evolution of global population.

V) As a guide to family planning policy

Many of the arguments above suggest I do not believe that subsidization of contraception is a good use of public monies. Given the setting I doubt I have convinced anyone. But as my final point I would like to say, forget everything else I said, even if none of the above were true, "unmet need" is still not a good tool to use for family planning. Because using "need" of any kind as a guide to policy has three unwanted side effects, which have been demonstrated again and again in development activity.

First, if "need" interpreted as a physical lack is the problem then the obvious solutions are supply side. If people

need more water then the solution is to build more pumps, if people need more food the solution is to grow more food, if people need better health the solution is to build more hospitals.

Second, if the supply side solutions are addressing a "need" then it wouldn't be fair or equitable to charge people (for water or health care). But, if the supply is to be met and people are not going to be charged (or costs recovered) then the public sector must do it with publicly mobilized revenues.

Third, if need is the problem and people are given the good free then they are beneficiaries, not customers and they can be treated however the "donors" feel like.

Take the provision of water supply. Water really is a clear cut need. Therefore the early push in development activities in water supply put the emphasis on building more pumps to supply safe water. What was the experience? That enormous efforts were undertaken to invest in water, only to have those pumps under maintained, broken, and left in disuse.

There is similar experience with health care, facilities were built but then not adequately supplied with staff and other inputs and fell into more or less levels of dilapidation and disuse.

In other words, many of the features that people in the family planning literature point out about the provision of

family planning: insufficient attention to client quality, poor service, lack of sustained input levels after initial investments, are not happenstance but rather are the obvious outcome of beginning with a "needs" based analysis which naturally leads to a public sector supply solution which naturally leads to all the problems currently being experienced.

So "unmet need" whatever its uses, can be very damaging if people actually come to believe that contraception is a "need." It would be much better to start from a demand perspective, how much and of what kinds of contraceptives do people want and how much are they willing to pay. This leads more naturally to structuring the solutions around many competing sources of supply with the interventions based on supporting demand not based on supporting suppliers.

Conclusion

I think I have been sufficiently plain that no conclusion is necessary. There is no need for "unmet need." "Unmet need" ought to be, if not denounced from the rooftops, then at least quietly shunned in any serious discussion of family planning programs and policy.