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**BIRTH CONTROL IN CHINA:  
CHOICES AVAILABLE AND CHOICES MADE**

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## **Birth Control Choices in China**

### **Abstract**

Chinese women have, by international standards, a comparatively low rate of birth control pill use. This study attempts, through interviews with social scientists and pharmacy surveys, to determine why women do not choose contraceptive pills more often. Interviews with patients and doctors reveal that there are several factors which combine to strongly dissuade women from using birth control pills. Policy makers in the past preferred methods not prone to patient tampering, doctors tend to rate side effects as high, and effectiveness as relatively low, and women have internalized both of these attitudes. Women themselves trust IUDs because of the perceived risks of hormonal methods, but these attitudes are shifting with time. In addition, Chinese women are often not given a choice in the birth control method they choose, although this too is changing.

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## Introduction

Why do Chinese women not use birth control pills? Although China started producing birth control pills domestically in the 1960s, their use has not been as widespread as in many Western nations. In the United States, around 15 percent of women rely on the pill for contraception (20.4 percent of women using any contraception), and in Sweden around 23 percent do (29.5 percent of women using any contraception).<sup>1</sup> China, by contrast, has an overall rate of 1.7 percent (of women using birth control, 2 percent use the pill).<sup>2</sup>

At the same time, China has had a relatively strict one-child policy in place since 1978 requiring that married women to use birth control, and typically requiring that an unplanned pregnancy be terminated. The Marriage Law of 1980 states in no uncertain terms in Article two that “Birth control shall be practiced.”<sup>3</sup> Birth control pills are highly effective, with failure (conception) rates of just 1-2 percent<sup>4</sup>. Intrauterine Devices (IUDs) the most commonly used form of birth control in China, are less effective, with failure rates of 4-5 percent.<sup>5</sup>

The Chinese government's birth control policy would seem to logically encourage birth control pills as the appropriate form of contraception for many women. The higher effectiveness rates would lead to fewer abortions. This would be good for women, who bear the brunt of physical and emotional stress of an abortion, and would make economic sense for workplaces—and ultimately the government—who pay for these abortions.

With the price for pills low to non-existent for the married Chinese user, what other factors could account for these usage patterns?<sup>6</sup> Do Chinese women use IUDs because that is the only realistic choice that has been offered to them? Or are they making a conscious decision in choosing IUDs over other methods?

## Methodology

### *Theoretical Approach*

The theoretical framework for this study comes from many areas of research, and focuses on the idea that all players in the birth control arena have biases. Policymakers have biases which are manifested (either implicitly or explicitly) in the policies they formulate, doctors have biases which in turn influence their patients, and women themselves have biases.

Attitudes held by those in power tend to influence the people over who the power is held, especially if accompanied by economic incentives. Thus, if those formulating public policy have a reason to resist pill use (or alternately, just not favor it) then regulations will reinforce this bias. There seems to be some indication that this is indeed happening. In at least two factories in Shanghai, “If the woman has not been using an IUD and becomes pregnant, her bonus will be deducted during the sick leave following the abortion and medical expenses are not reimburse. If, on the other hand, she has been using an IUD and becomes pregnant, it is not regarded as her own fault so her bonus is not deducted.”<sup>7</sup>

This social pressure where it is a woman's “fault” or not if she becomes pregnant, and she is assigned more blame or less depending on her choice of contraceptive is a very powerful force. It also leads to a situation where the birth planning officials see their pressuring of women into using IUDs as ultimately protecting women's health as it protects them from multiple abortions.<sup>8</sup>

A similar power dynamic holds true in the doctor's office as well. In the United States, for example, physicians resist using IUDs widely because of fears of pelvic inflammatory disease and litigation.<sup>9</sup> This reservation on the part of physicians has in turn influenced women's choices of contraception, and contributed to the relatively low rate of IUD use in the United States. If Chinese physicians have similar negative attitudes toward contraceptive pills, then it would follow that they do not highly recommend them to their patients. One study found that “Chinese gynecologists do not prescribe COC very often and that few of them discuss it with their clients. They are likely to ignore the health benefits of COC, and are concerned about the risks and side effects.”<sup>10</sup>

This research will employ critical theory to look beyond the number of many scientific studies, and think critically about what is being really being said. Critical theory is designed to “increase our awareness of the political nature of social phenomena,” and it also strives to “develop the ability of researchers to reflect critically upon those taken-for-granted realities which they are examining.”<sup>11</sup> In China, it is especially important that researches pay attention to

the political nature of social trends, as China is still--despite its movements towards a more free economy--a functioning Communist state where social actions can have significant political repercussions. Alvesson also points out Habermass' point that due to competing power structures, people often have an inability to "take up an independent political or ethical stance."<sup>12</sup>

For example, there are indications that women in China have in the past not been able to choose which form of contraception to use. In August of 2001, the State Family Planning Commission of China announced a new initiative to "spare no efforts to promote client-oriented reproductive health services and stop any coercive practices that violate the country's family planning policy." One of the practices singled out for attention was "asking people to accept a particular contraceptive method without discussing, [sic] which one is preferred."<sup>13</sup>

Because of all of these pressures from above, women may consider birth control pills unacceptable. There may also be biases against the pill for other reasons. The same survey which found doctors rarely prescribe the pill found that of the patients questioned, "Only 14.2% knew that it [the contraceptive pill] was extremely effective. The more effective the clients believed COC [combined oral contraceptive] was, the more likely they were to use it."<sup>14</sup> This indicates that women have biases against the pill based on their belief that it is not very effective, despite the fact that correctly taken it is often more effective than IUDs.

### ***Methodology***

This study will be qualitative in nature. While I will refer extensively to quantitative studies, I have neither the time nor the resources to conduct a full-scale quantitative study. Such a qualitative study also has the benefit of allowing the researcher to delve further into the personal experiences of women and their birth control experiences.

Semi-structured interviews with various key people will be the main source of information for this study. I hope to obtain interviews with local family-planning clinic doctors, contraceptive users, and government officials. If this is possible, the results should give a fairly broad picture of what factors--be they political, medical, economic, or cultural--influence women's decision making with regard to contraceptive choice. The participants will be selected by the "snowball" method, whereby contacts pass on the information of further possible participants. The researcher also intends to contact academics who have produced previous birth control use studies for suggestions on officials to speak with.

### ***Ethical Considerations***

The researcher is an outsider, and as such must take into consideration the fact that subjects may be less (or more) willing to confide in her. Privacy issues must be taken into consideration by the researcher as birth control is inherently very personal. Consent will be obtained from any interviewees, and additional consent will be obtained if the researcher intends to tape conversations. The interviewees will be made aware of the fact that the researcher will use the data only for the current study.

## Thesis

### *A History of China's State-Sponsored Birth Control Policies*

The history of state-sponsored birth control policies in China illustrates some of the government's larger concerns as they have played out in the politics of fertility. During the early years after the 1949 revolution, the government was not concerned with limiting the population—in fact, quite the contrary. There was opposition to the idea of contraception on both moral and ideological grounds. Moral concerns stemmed from the newness of effective contraception and, as in most societies, there was a social debate over the repercussions of the new technology. The ideological component to the debate arose because it was considered the duty of an upstanding Communist woman to bear as many children as possible to help the State grow ever larger and stronger.

Ideology won the debate in the end, but not as originally conceived. The first nation-wide census was held in 1953. As the results became apparent the next year, upper-level Party members started to express concern over the large population. An official policy of birth control was implemented by 1956. It was supported by such high-ranking Party members as Liu Shaoqi who stated in 1954, “the party endorses birth control,”<sup>15</sup> and Zhou Enlai, who in 1956 asked that “...health departments both disseminate propaganda and take effective measures for birth control.”<sup>16</sup> By 1957, Chen Yun—at that time China’s head economic planner—called for Party members not to have a third child, and encouraged provinces to begin widespread birth control propaganda. Chen said that contraceptive prices would be lowered even to the point of free distribution, and that the Party was willing to spend “several tens of millions” a year on contraceptive subsidies.<sup>17</sup>

During the period of time from about 1958 to 1962, collectivization, the Great Leap Forward, and widespread famine put family planning objectives on the back burner. Indeed, during the beginning of the Great Leap “vicious attacks on Malthusians, ‘rightists’ and ‘bourgeois economists’ who championed birth control again shifted into high gear.”<sup>18</sup> The Great Proletarian Cultural Revolution also temporarily limited birth control programs, and it was not until the seventies that the issue was again raised as a national priority. In 1971 the “*Wan, Xi, Shao*” campaign encouraged couples to get married *late*, to create *longer intervals* between children and to have *fewer* babies. This campaign was successful enough that the fertility rate fell from 6.0 in 1968-70 to 2.5 by 1979-81.<sup>19</sup> This low a rate was still not enough to reassure Party planners as the large number of children born in the sixties began to reach the age of reproduction. The impending baby boom led to the start, in 1979, of the

One-Child campaign.

In 1983, Steven Mosher's *Broken Earth* was published. One chapter, concerning the one-child policy and forced abortions, was the first report about the Chinese birth control policy to capture the interest of the U.S. population. This book helped fuel a public debate in the U.S. which rages to this day over the social policies in China. In the chapter, Mosher marvels, "I came away from the clinic appalled at the physical and mental anguish of the women I had seen, but even more puzzled by the absence of opposition to it [coercive abortions], not only from the women themselves, but from any segment of Chinese society."<sup>20</sup> Direct physical attacks on the cadres responsible for implementing the policies were not unheard of. Given the reactive state of Chinese lawmaking, these must have been fairly common, as laws were promulgated outlawing such activity.<sup>21</sup>

Paradoxically, couples who chose not to have children early in marriage faced as great societal pressure as couples who chose to have more than one child. As one factory worker in the 1980s expressed, "If you don't have any children you are guilty of bourgeoisie thinking; if you have too many children you are guilty of feudal thinking; only by having one child can you demonstrate true proletarian thinking."<sup>22</sup>

### ***The Current One Child Policy and Future Implications for Family Planning***

The State's implementation of the one-child policy has, at various times, taken on a coercive nature, bringing the goals of the State into conflict with those of the individual. Even when not openly aggressive, State intervention into such a personal sphere inevitably leads to conflict. The stringency with which it has been carried out has varied across time and location. Reports of forced abortions and sterilizations surface when the central government issues new, more decisive population goals. These goals then translate into specific number targets which officials at the local level are tasked with meeting. It appears the violations of women's rights were especially bad in 1982 and 1983 when the government handed down new quotas to be met by the local health-workers.<sup>23</sup>

When foreigners discuss the one child policy, they often see it in monolithic terms, and often don't realize that it is not universally applied. Certain minorities, such as the Tibetans and other non-Han peoples, have always had the right to have more than one child. Parents who have a disabled child are allowed to have another.<sup>24</sup> The State Family Planning Commission notes that only 20 percent of children under 14 are growing up as an only child.<sup>25</sup> In rural areas, the *de facto* policy has for years been one child is better, but two are fine if the first is a daughter, and the births are properly spaced. This policy is based on the

fact that in rural areas, the relationship between having a son and being cared for in a parent's old age still is very strong.

During the heyday of the communes, one of the most touted advances was the idea of the “*tiefanwan*” or “iron rice bowl.” The State would provide retirement security for all workers, and thus the age-old correlation—for peasants especially—of having many sons and being cared for well in one's old age would finally be broken. One of the side effects of the partial dismantling of the State-funded retirement system has been a return to the older economic realities. Since the shift to a market economy has led to a return of some of the traditional economic pressures on rural families, the government has found it difficult to compel rural families to have only one child, especially if the one child is a daughter. This has led to many campaigns on the part of the government to encourage couples to value daughters as well. In rural areas costs for healthcare are now a huge burden, and as the “barefoot doctor” program has ended<sup>26</sup>, many people in rural areas find even access to healthcare difficult. While the barefoot doctors were not fully qualified health professionals, the immunization programs and basic first aid they provided gave an enormous boost to the health in the countryside. Decollectivization and the rise of the household system once again gave couples economic incentive to have more children, even though officially prohibited by the one-child policy, because the protection in old age which the collective had provided in the past was no longer in place.

One of the main socio-economic dividing lines in China, perhaps more so than in other nations, is that between urban and rural areas. The Chinese government has a system of household registration, called “hukou” which prevents people from freely moving around the country, with a special emphasis in dividing between “urban” and “rural” registrations. Only people with urban registrations are allowed to live in urban areas, and vice versa. In practice, this means that people's mobility is limited. This divide between urban and rural can be seen in many areas of life. Urban dwellers in China have higher educations, and higher incomes.

Urban populations in China have embraced the one child policy far more so than rural areas, in part because the spiraling costs of raising a child have become more and more prohibitive. The cost of housing in urban areas also acts as a strong deterrent to having more than one, or possibly two children. Urban parents are also much more likely to say that they don't care what the sex of their child is, or even prefer a daughter.<sup>27</sup>

The One Child policy has been so effective, in fact, that there has been recent talk of loosening it. Last year the government convened a task force to investigate the possibility of changing the regulation.<sup>28</sup> Rural residents recently got the official go-ahead on a practice which had been all of standard anyway. When a first child was a daughter, then they can try

again for a son as long as they space the births appropriately. The director of policy and law department of the National Population and Family Planning Commission, Yu Xuejun, has said that he supports the shift to a two-child policy, but that “This is a major decision for the country.”<sup>29</sup>

A demographic shift has occurred which the Government is only now coming to terms with. While as recently as 1990, the Far Eastern Economic Review and other publications were bemoaning the skyrocketing birthrate in China,<sup>30</sup> now the looming retirement crisis has led to a reconsideration of the stringent birth control measures of the 1980s. Essentially China has managed to curtail its birthrate so effectively that it is the only emerging nation which faces a pensions shortage on par with many Western nations. As today's only children grow up their wages will have to support both parents in retirement.

### ***A History of Birth Control in China***

Contraception has a long history in many cultures, and China is no exception. Extant early recipes for preventing conception include such exotic ingredients as “...croton fruit, morning glory seed, Peking spurge blister beetle, India pokeberry, musk, burred rhizome, zedoary turmeric rhizome, peach kernel, safflower, rhubarb root, immature bitter orange, and the bark of the Chinese cassia tree.”<sup>31</sup>

At the start of the birth control movement in China under the Communist government, and to a certain extent still, birth control was considered “women's work.” This is not specifically to say that contraception on an individual level was considered beneath a man's dignity (although relative rates of female and male sterilization indicate that this might be the case as well), rather that contraceptive enforcement on a local level was always placed in the hands of a female comrade.

In modern times, birth control is a topic which is often difficult to study, fraught as it is with baggage from sexuality, as well as the fact that it is by nature a private affair. It is impossible (with the possible exception of the new birth control patch) to look at a person and determine what form, if any, of contraception they use.

China poses an especially difficult problem for the western researcher, since the language barrier is so effective at keeping researchers from primary data, and relatively little research is published in English. The Chinese government has also stymied efforts by outsiders to research sensitive issues such as sexuality and birth control. During the turmoil of the years around the Cultural Revolution, large-scale demographics projects were simply non-existent. In the 1970s and 1980s, when the government again started collecting data, it was not shared with outside governments. In more recent times, birth control in particular

has been a sensitive topic because of the charges of human rights abuses leveled against the Chinese government for forced abortions.

Another barrier to data collection in China is the immense size of the country's population and its diverse location. Consider that China's population is 1,298,847,624 (according to the CIA who seem to think they can pinpoint a country's population to the final person). Sweden's population, according to a 2004 estimate, is 8,986,400. China's population is almost 145 times as large. And with 9,326,410 square kilometers of land, China could house almost twenty-three Swedens. Thus the sheer size of the country means that even China's top demographers can only estimate the population to the nearest million or two.

Other constraints exist as well. By the nature of data collection, one can only see a snapshot in time—as soon as the information is gathered it becomes obsolete. This problem is compounded by the fact that volumes of data such as those produced by a census often take years to mine. These problems make it much easier to speak with confidence of historical trends than to assert current movements. This is not to say that such information is of no value, only that it must be approached with the understanding that, at best, it is only an approximation of the current situation.

One of the most comprehensive studies of women's use of birth control in China was done in 1988. The Two Per Thousand Fertility Study aimed to take a large and representative sample of the Chinese population and extracted country-wide fertility questions. Of the 2.15 million people surveyed, nearly 500,000 of them were “married women, aged 15-57.” While this study has very good data, it is also somewhat out of date. Many more recent studies have used this data because of its comprehensive nature, so it is imperative to note that some conclusions of newer studies may be based on these older responses.

### **Sterilization**

Sterilization is any surgery which renders the patient infertile. For men, it involves cutting the *vas deferens*, the small tubes through which sperm flow from the testes to the penis. This is an outpatient procedure which involves an incision of less than an inch on either testicle, and is far less invasive than either of the female surgeries. For women sterilization can either be in the form of a tubal ligation or a hysterectomy. A tubal ligation is when a woman's fallopian tubes—through which her eggs travel to the uterus—are either cauterized, clamped, or severed. A hysterectomy is when a woman's entire uterus (and sometimes her fallopian tubes and ovaries as well) is removed. Interestingly, sterilization is not one hundred percent effective. Vasectomies have higher success rates, at over 99 percent.

Tubal ligations, on the other hand, have reported failure rates as high as 5 percent. This is because over the years a women's fallopian tubes occasionally fuse back together.

Due to its permanence, sterilization is considered an appropriate form of birth control only for those who have completed their childbearing. Although strides have been made in recent years in perfecting surgery to restore fertility, it is still considered irreversible in most cases. A woman who has had a tubal ligation may be able to carry a child to term by having her eggs surgically removed from her ovaries, mixed with her partner's sperm *in vitro*, and having any resulting embryos transplanted into her uterus.

Sterilization has long been a popular form of birth control in China. According to the 1982 One in a Thousand fertility survey (not to be confused with the later more comprehensive Two per Thousand study), in which 310,485 women aged 15-67 were surveyed about their contraceptive practices, tubal ligations accounted for 25 percent of contraceptive use, whereas vasectomies only accounted for 10 percent. By extrapolation, more than seven out of every ten sterilizations in China were performed on women. When broken down by region, however, this picture is also more complex.

In China's southwest, the rate of vasectomies was much higher, and this is likely due to the fact that Sichuan Province in the late 1970s had a particularly vigorous campaign encouraging men to get sterilized.<sup>32</sup> In Sichuan, the rate of male sterilization is 30.7 percent compared to almost 9 percent of women (expressed as percentages of all contraceptive users). However, in every province, excepting Sichuan, there is a higher rate of female sterilization than male.

An innovative no-scalpel vasectomy was pioneered in Sichuan in the mid-1970s.<sup>33</sup> This technique involves two simple tools: a set of dissecting forceps, and a ring clamp. This form of vasectomy only takes five minutes, and reduced infection rates as well as blood clots.

### **The Pill**

More formally known as combined oral contraceptives (COCs), birth control pills became commercially available in the 1960s. They are called “combined” to distinguish them from what is known in many countries as the “mini-pill.” The mini-pill contains only progesterone, while COCs contain both estrogen and progesterone. COCs work by inhibiting ovulation, by tricking the body into thinking that it is already pregnant. They change the uterine lining, making implantation less likely, and they also thicken cervical mucus, making it more difficult for sperm to swim into the uterus and fertilize any eggs which may not have been suppressed. Some pills have fluctuating levels of hormones to more closely mimic the cycles of estrogen which naturally occur, but many do not. Some women prefer the former as

they can mitigate side effects, but both types are equally effective at contraception.

Birth control pills can be used by women who want a highly effective form of birth control which has the additional effect of regularizing her menstruation. COCs should not be used by women who smoke or who are overweight, as they increase the risk of strokes. They also should not be used by women who do not want the trouble of remembering to take a pill every day. In addition, they do not provide any protection from sexually transmitted diseases (STDs).

Domestic production of the birth control pill was established very early in China. By 1972 Tameyoshi Katagiri, Regional Executive Secretary for the Western Pacific Region of International Planned Parenthood Federation, was able to state "...the [pill] is the most popular method of contraception in China's urban centers."<sup>34</sup> The Chinese were the first to produce low-dose birth control pills. Clinical trials in China started with the traditional US and European standards at that time, and experimented with reducing the amount of active ingredients.<sup>35</sup>

Two reasons encouraged this experimentation. First, Chinese women experienced more side effects from the high dose pills than American or European women. This is logical as Chinese women, on average, weigh less, so the dose would have been even higher for them on a milligrams of steroid per kilo of body weight scale. Second, the hormones which made up the pill were initially expensive to manufacture because they had to be extracted from natural plant sources. By reducing the dose to one half or one quarter, the government could effectively cover two to four times the number of women with the same amount of raw material.<sup>36</sup> Since birth control pills were provided free to all married couple who requested them, price was a not inconsiderable burden on the State.

An unintended but fortuitous result of this was that Chinese woman were not subject to the high stroke and heart attack risks from the early high-dose pills as women in other countries were. Interestingly, Djerassi faults the Chinese government for having drug approval policies which were "...far less stringent than in the United States. Thus it is only in 1973 that the US Food and Drug Administration (FDA) is considering a resubmitted 'New Drug Application' by a pharmaceutical company for two low-dose oral contraceptive combinations...."<sup>37</sup> Unfortunately, it was this very rigidity in the FDA approval process which kept the developers of Enovid, the first contraceptive pill, "committed to the 10 mg dosage...as a standard dose long after it had become clear that the 5 mg dose worked and caused fewer side-effects."<sup>38</sup> \*

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\*It was this experience with birth control pills which directly led to FDA regulations

By the nineteen-seventies there were four widely-distributed standard doses of Chinese manufactured birth control pills containing two different progestins. The first, prosaically named Oral Contraceptive Pill No. 1, was one quarter the dose of the Western standard, and it was a combination of norethindrone and ethinylestradiol. The second was merely the same combination as Pill No. 1 (and had the same name) but was a larger dose, half of the Western standard. The third—confusingly named Pill No. 2—was a combination of megastrol acetate and ethinylestradiol also in one quarter and one half strength of the Western doses. Finally, Pill No. 3, which was not a birth control pill at all, but was a pure ethinylestradiol tablet designed to be taken in conjunction with the other pills if the patient complained of breakthrough bleeding. Thus, the typical sequence was for a woman to be placed on the lowest dose pill (No. 1 at the one quarter strength) and to be moved up to higher dosages if she complained of spotting.

Another innovation in birth control pills in China at this time, was the formulation of a “visiting pill”—essentially what we today would term the morning after pill. Created for women who were living away from their husbands and thus had no need of constant protection from pregnancy, the regimen consisted of a single pill containing high doses of hormones taken the morning after unprotected intercourse, then one taken every night for three nights successively.<sup>39</sup>

The paper pill was a Chinese innovation, and which at the time of its inception in the early seventies was hailed as the next great improvement in the delivery of hormonal contraceptives. Carl Djerassi, the first to synthesize one of the integral hormonal compounds which led to the creation of the pill, visited China in 1973 to give a series of lectures, and predicted that if the paper pills were successful, they would “rapidly become the contraceptive of choice throughout the PRC.”<sup>40</sup> The “pills” were a six centimeter by four centimeter sheet of digestible carboxymethylcellulose paper perforated into 22 squares. Djerassi noted that as well as being more portable for the consumer, they protected the factory workers from being exposed to as many chemicals, and their small size made distribution much easier as well as less costly. Other advantages included the fact that the chemicals seemed to be less prone to degradation in this form, and no pill-bottles or other containers were needed (the sheets were placed in envelopes) and the cost of production was thus much reduced.<sup>41</sup> A specimen was donated to the Smithsonian Institute in 1988, and can be seen on their website.<sup>42</sup>

It is unclear why this method never became more popular. There was international

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mandating patient inserts in prescription drugs outlining all possible risks and side effects.

press coverage of the innovation, although no Western pill manufacturer apparently took up the idea.<sup>43</sup> At the time of Djerassi's investigation, only one factory in Shanghai produced the paper pills and they presumably had a limited area of distribution.

### **Condoms**

Condoms have been used for centuries in many cultures. Europeans used cloth and intestine sheaths to protect against syphilis. The Chinese and Japanese used silk sheaths. It was not until 1844, when Charles Goodyear invented the process known as rubber vulcanization that rubber condoms were developed. Furthermore, it was not until the 1930s when methods of working liquid latex were developed that modern condoms were produced.

Condoms are effective birth control devices, but not as effective as either IUDs or COCs. With real-use failure rates around 10-15 percent<sup>44</sup> depending on the study, condoms are significantly less effective than IUDs or pills. Condoms also require that the male partner participates in contraception responsibilities. However, condoms also offer several advantages. Condoms protect against STD transfer, which is of concern to people with multiple partners. Condoms are generally easy to obtain, easy to use, and unlike IUDs or COCs, do not need to be employed in advance.

In China, approximately 3.4 percent of married couples use condoms.<sup>45</sup> Condom use is often more difficult to measure in a population because unlike COC or IUD use, condoms can be used at will with each sexual encounter. So a couple could use condoms exclusively, or some other method mainly, but condoms in conjunction.

### **IUDs**

IUDs also have a very long history. Turkish and Arabian camel herders would insert small pebbles into the uteri of their female camels to prevent conception on long journeys. Hippocrates and the Talmud both mention the method as a safe form of contraception.

Intrauterine devices today are small metal or plastic frames about the size of a bottle cap. They are inserted into a woman's uterus, and threads attached to the device trail out of the user's cervix so that she can check that the IUD is still in place. Researchers are not entirely sure by what mechanism IUDs stop pregnancies from occurring. The most widespread theory is that they cause a constant low-level irritation to the lining of the uterus, making for an inhospitable environment for implantation. Modern IUDs often are impregnated with progesterone. While this means the device needs to be replaced after five years instead of the ten to fifteen years for metal IUDs, they also have slightly higher success rates, as the progesterone—like in the mini-pill—makes cervical mucus thicker, decreasing

sperm motility. Copper is another substance which IUDs can be made out of which has higher success rates than other metals.

IUDs are a highly effective means of birth control. Failure rates are generally around 1-3 percent. They are easy to use, as there is nothing for the user to remember to swallow, apply, or count. There are two drawbacks to IUDs. The first is that many women suffer heavier—and occasionally painful—menstruation while using IUDs. The other is that IUDs are not suitable for any woman not in a long-term mutually monogamous relationship. This is due to the fact that, while rare, side effects from concurrent STDs and IUD usage can include hospitalization for severe infection and even emergency hysterectomy.

The original IUDs in China were mostly plain stainless steel rings but without the traditional nylon string. This made it much more difficult for women to remove the device without assistance as a special metal hook was needed. In the 1970s only anecdotal evidence was available to outsiders, but all evidence pointed to the fact that pills were more popular than IUDs.<sup>46</sup> By the 1982 One per One Thousand fertility study, by contrast, one half of the married women practicing contraception used an IUD.

There were variations between urban and rural users which make the picture more complex. In major urban areas where women could receive more regular medical support, pill use was much higher, reaching rates of almost 30 percent in Beijing and more than 20 percent in other urban centers.<sup>47</sup> Rural users, on the other hand, were much more likely to have an IUD. Of rural Han women, almost 50 percent used IUDs, while 56.62 percent of minority women utilized the devices. This difference can be accounted for because many fewer minority women (and men) were sterilized than equivalent rural Han populations, reflecting a resistance on the minority people's acceptance of sterilization as well as the fact that minority couples were allowed more than one child.

### **Injections And Implants**

Birth control injections and implants use progesterone, the same hormone in the mini-pill. As when it is taken in pill form, progesterone causes suppression of ovulation and changes in the uterine wall which make for an inhospitable environment for implantation. Progesterone injections are only needed once every three months to maintain efficacy. Progesterone implants consist of one or several match-stick sized rods which are inserted under the skin of the user's upper arm, and, depending on the formulation, provide protection from one to seven years.

Injections and implants are suitable for women who would like a long-term highly effective method of birth control. They have failure rates around 2-3 percent.<sup>48</sup> Injections

and implants, like COCs, are hormonal methods which have high effectiveness, but some women have side effects such as sore breasts, and breakthrough bleeding—spotting which occurs when a woman is not menstruating. Unlike the pill, however, any side effects must be ridden out by the user, as there is no way to discontinue the dosage once it has been administered. Like IUDs, injections and implants do not require the user to do anything in order to maintain contraceptive benefits. Unlike most IUDs, however, they do need to be maintained on a regular basis—one or three months for injections, and less frequently for implants. Neither injections nor implants protect the user from STDs.

Contraceptive injections have been tested in China since the 1970s when hormonal methods of birth control were first introduced. Djerassi reported a Chinese form of injectable once a month contraceptive, but was unable to find any data on efficacy or usage. Faundes and Luukkainen reported in 1972 that both a once-a-month shot and pill were being tested. The clinical studies were underway, and they were told that there had been extremely few side effects and high efficacy, but as the trials were still in progress they were unable to obtain more concrete data.<sup>49</sup> Such shots seem never to have captured more than 1 percent of the contraceptives market in China. The 1982 census, which provides very detailed information available about Chinese contraceptive choices, does not even list injections or implants as a contraceptive choice.<sup>50</sup> This does not, however, mean that no women were utilizing these forms, but merely that they did not make up a large enough number to show up on a nation-wide but proportional census.

Norplant subdermal implants were first tested in China in the mid 1980s. Initially, the prohibitive cost of treatment prevented anyone other than the participants in the highly subsidized program from receiving the implant. China has since developed its own versions of Norplant (a six rod implant designed to be used for seven years), named Implant No. 1, and Jadelle (a two rod system designed to last for three years) termed the Sino-implant.<sup>51</sup> As these domestically produced alternatives are cheaper, this should make the implants more affordable for local governments.

### **Experimental Male Methods**

China's large population and focus on family planning have led to many innovative studies of new contraceptive methods. Two novel experimental birth control methods studied in China include gossypol and microwave treatment.

Gossypol is a substance derived from the cotton plant. In the 1920s researchers in China discovered its contraceptive qualities. Researchers in China and Brazil are currently studying whether this might be an effective oral contraceptive for men. One of the side

effects, however, is that around 20 percent of users remain infertile after discontinuing use.<sup>52</sup>

Another novel approach to male contraception studied in China involves the use of microwaves. According to a paper published in 1988, “[s]perm count can be reduced to sterility level[sic] seven weeks after volunteer’s testes are heated to 40-42 C by microwave exposure for 30 minutes, and maintain the low level when treated once a month.... No changes in sexual function were observed, but there existed the potentially genetic risk according to studies on chromosome aberration, sperm malformation and dominant lethal mutation. However, they might be reversible.”<sup>53</sup> This researcher has been unable to locate any follow up studies on this technique.

### *Current Comparison Between IUDs and Pills*

#### **IUDs**

Intrauterine devices are currently the most popular form of birth control in China, with 36.4 percent of married women using them.<sup>54</sup> It has been estimated that Chinese women at one time made up seventy percent of the world’s IUD users.<sup>55</sup> This may be a shift from the 1970s when the pill was reportedly the most popular form.\* The literature does not remark on this change, but it probably occurred due to several reasons. An important consideration for the government—which supplies all married couples with free contraceptives—is cost. Birth control pills, even when locally manufactured, are a relatively expensive form of birth control, and one which needs to be replenished on a regular basis. IUDs, on the other hand, are relatively cheap (costing about .10 Yuan—around 8 öre), and can last for up to ten years.<sup>56</sup>

Another consideration for the government is that IUDs are relatively safe from patient error and tampering. Teaching women to correctly use birth control pills is much more difficult than inserting an IUD.

Although the government is currently working to create copper IUDs which are more effective and generally have fewer side effects, the IUDs currently most prevalent are known as Stainless Steel Rings (SSRs), and they have very high failure rates for IUDs. Shifting from the SSRs to much more effective copper IUDs would significantly lower the number of abortions in the country, and thus save money in the long run.<sup>57</sup> IUD method failure is a major reason why women in China need abortions, and the copper IUDs are approximately

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\*Data in English from the 1970s is spotty, and it is possible that foreigners only had access to data from urban areas, which would skew their calculations of usage rates considerably.

six times as effective as the SSRs.

### **Pills**

Current studies indicate that very few Chinese women use birth control pills. On average 1.7 percent of Chinese women use COCs.<sup>58</sup> That number, however, is misleading, as it combines both urban and rural users. In Shanghai, one study found only 12 percent of participants had ever used COCs.<sup>59</sup>

On the website for one of the packets of morning after pills I purchased in Shanghai was the following revealing statement: "...in the recent conference, we found the pills are prevailing abroad and employed as ways of birth control. (About 30 percent-50 percent of women use them in various countries.) On the contrary, there is only 2-3 percent usage in China. The reason is though Chinese women regard it as an effective or relatively effective way to prevent conception, about 50 percent Chinese women don't understand the advantage of the pill and even have doubts about the side-effects brought by the pills. One survey [did not indicate the source] reveals that 82.2 percent women are afraid of negative influence of the pills, 48.1 percent worried about gaining weight as a side effect. Some even worry about tumors and heart disease."<sup>60</sup>

### **Abortion**

In many cases abortion is an indication of another contraceptive's failure to protect a couple from pregnancy. Abortion is an especially touchy issue in China because of the sensitivity of the Chinese government to being accused of human rights abuses.

A 1997 study looked at the birth control methods of women requesting abortion in several Chinese hospitals, and showed that 71.9 percent of them suffered method failure.<sup>61</sup> In China, the estimated ratio of abortions to live births is 0.5:1, and about 7–8 million abortions were carried in 1994–1997.<sup>62</sup> From a case study of several hospitals in a large city in China, 71.9 percent of women requesting abortion had experienced contraceptive failure. From these contraceptive failures, IUD failures constituted 23.5 percent.<sup>63</sup>

In Shanghai, a recently-released long-term study following almost 8,000 newly-weds and their experience of unintended pregnancies shows that 81 percent of unintended conceptions in this group were due to contraceptive failure.<sup>64</sup>

A discussion of abortion in China would not be complete without raising the problem of sex-selective abortion. Sex-selective abortion has become an increasingly common way for Chinese women to accommodate not only the State's will that she only have one, or possibly two children, but also the intense societal pressure to produce a son. That China's

sex ratio is skewed is a fact debated by no one. The extent to which there is an imbalance, is however, the topic of much heated discussion. The natural rate of males to females in most of the world is 105-106 males born for every hundred female births. This will typically even out over time, as male infants tend to have slightly higher mortality. What is clear is that by 2000, China's average for second births was 151.9 males born for every hundred females. The fact that this disparity in sex ratio at birth is concentrated in second-order and higher births indicates that many women are ready to let nature take its course with their first child, and then attempt to ensure that the second is male if they have had a daughter previously.<sup>65</sup>

### ***Current Choice Factors***

There are many factors, both personal and circumstantial, which come into play when a person chooses his or her birth control method. In the past, it was commonly assumed that birth control was a women's responsibility. "When asked how he and his wife had obtained information about contraception after they were married, a young man we knew replied, 'Oh, my wife went to the clinic at her work unit and they gave her some sort of medicine to take. I don't really know much about it.' Perhaps in response to the type of situation, a writer in a popular Shanghai newspaper instructed his readers that 'contraception is a matter of concern to both husband and wife'."<sup>66</sup> While this anecdote is from the 1980s, it does help to understand the history from which current birth control attitudes spring.

### **Political Factors**

Policymakers like IUDs because they prefer that women use a long-term method which is not possible for her to easily misuse. Women can very easily, consciously or not, get pregnant by not taking the pill regularly.

There are indications that women in China have in the past not been able to choose which form of contraception to use. In August of 2001, the State Family Planning Commission of China announced a new initiative to "spare no efforts to promote client-oriented reproductive health services and stop any coercive practices that violate the country's family planning policy." One of the practices singled out for attention was "asking people to accept a particular contraceptive method without discussing, [sic] which one is preferred."<sup>67</sup> The fact that this was singled out as a problem indicates that not only has it been widely the case in the past, but also that the government is starting to address this problem.

One program which has been addressing these needs is a UNFP pilot program which started in 32 counties to allow women to actively choose their contraceptive method. This program was a rousing success: "Evidence indicates a downward trend in the abortion ratio,

and a shift in the method mix from permanent to temporary methods. The success of the programme was beyond expectations, and the Government intends to institute aspects of the client-oriented, quality reproductive health approach in 827 additional counties.”<sup>68</sup>

### **Urban Rural Divide**

Part of the difference in birth control use stems from the fact that rural users often have fewer choices. One study specifically noted that “As in many other rural areas of China, contraceptive use in the study areas is not purely a matter of individual choice. It is strongly influenced by the quantity and variety of local contraceptive supplies and the provincial and local family planning regulations that promote IUD use strongly after a first birth and sterilization after the second.”<sup>69</sup>

This lack of jobs and basic needs in rural areas has led to migration from rural to urban areas. As economic migrants, many people from rural areas stream into the cities looking for work. As they do not have correct registration they are illegally living in the cities. The myriad social problems surrounding the migrant worker population in China is beyond the scope of this paper. However, one facet of this is what is referred to as the “extra-birth guerillas.”<sup>70</sup> These are people who deliberately leave their place of residence and migrate to avoid the one-child policy. Because the policy is implemented on a local level, after a child is born and the mother returns home, the family planning officer does not need to get involved, as the child not born in his or her area will not count in his or her quota.

### **Economic Factors**

Although the purchase price of pills for married couples is nonexistent, in China there seem to be other economic incentives to not use COCs. For example, when women get pregnant while on the pill, it is a practice in at least some workplaces to not pay for the woman's leave when she gets an abortion. Conversely, if she is using an IUD, it is not considered her “fault” and she is allowed her leave with pay.<sup>71</sup> This attitude probably also factors into whether or not the woman is allowed to continue the pregnancy. This observation is supported by findings, “...that 71.1 percent, 67.2 percent, and 37.7 percent of male and female sterilization and IUD failures, respectively, result in a live birth as opposed to 16.9 percent and 14.2 percent of pill and condom failures, respectively.”<sup>72</sup> It seems that the more a person is believed to have control over his or her contraceptive choice, the higher the abortion rate if pregnancy occurs.

Economic factors in society at large have impacted people on a personal level as well.

China's shift to a market-based economy has led to a change in the employment of many people. Privatization of formerly state-owned enterprises has also changed the working situation of many Chinese workers: “[a]ccording to some statistics, by the end of 1997, there were 960,000 registered private firms in China employing 13.5 million workers. The share of the non-state sector in the 1996 GDP was 24.2 percent compared to just 0.9 percent in 1978.”<sup>73</sup> Also from Amnesty, “[a]ccording to figures from the Ministry of Labour and Social Security, a total of 21.38 million workers had been laid off from SOEs [State-Owned Enterprises]. In 2001 alone 5.15 million workers at SOEs were laid off, according to Zhu Zhixin, head of the National Bureau of Statistics. However, the real figures are believed to be much higher.”<sup>74</sup> These are people who formerly would have had access to health care through their workplace, but now might not have access to such medical care. Previously their birth control and abortions might have been paid for by the company, but now they face having to cover their own health care costs.

### **Social Factors**

According to one doctor in Shanghai, “Chinese have an aversion to the pill, just like Westerners dislike IUDs, although it's becoming more accepted.”<sup>75</sup> The director of the Hong Kong Family Planning Association has stated that “Chinese women don't like putting things inside their vaginas.”<sup>76</sup> A doctor interviewed for an article in the American press hazards the guess that, “[m]ost people, probably 72 percent, use an IUD after marriage and childbirth, while for unmarried people condoms are used by 70 to 80 percent.”<sup>77</sup> A female population researcher told me that although she had read all of the scientific literature about COCs, “I still use an IUD myself.”<sup>78</sup>

Making sweeping statements about the proclivities of certain populations might sound baseless. But there are different attitudes in different populations. Saying that Chinese women dislike pills begs the question of why.

One example of a social value which impacts birth control choice might be part of the low injection and implant use in China. Injections and implants cause a high percentage of side effects in the form of menstrual irregularities. Many sources seem to agree that menstrual regularity is of paramount importance to Chinese women with regard to their contraceptive choice. Djerassi found in his inspection of package inserts, as well as his impression of discussions with many Chinese gynecologists, that menstrual irregularities were the side effect of most concern to Chinese women.”<sup>79</sup> Another author asserts that “...the regularity of menstruation is a key diagnostic for female health from the earliest Chinese medical classics to the present day”.<sup>80</sup> In the Norplant pilot study in China, the most common

reason given for discontinuance in the program was menstrual disorder which accounted for fully 77 percent of the women who had the implants removed early.<sup>81</sup>

In 2002, “The Acceptability of Combined Oral Hormonal Contraceptives in Shanghai,” attempted to uncover just what attitudes toward contraceptive pills doctors and patients held at the International Peace Maternity and Child Health Hospital. The results of this study are striking, and indicate that women perceive pills as not being very effective. In addition, doctors also felt that pills were ineffective, and were more likely to prescribe IUDs or the use of condoms for their patients, as well as rely on those methods themselves.<sup>82</sup>

Perhaps doctors are right to suspect high failure rates for women using COCs in China. One important factor in successful contraceptive pill use is consistent use by the user. One study in China found that women were more likely not to take their pills when their husbands were not in town, thus leaving them less protected when their husbands returned.<sup>83</sup> The same study found that the instructions women received about how to take their pills were unnecessarily complicated, and led to women not taking pills correctly. The same survey which found doctors rarely prescribe the pill found that of the patients questioned, “Only 14.2 percent knew that it [the contraceptive pill] was extremely effective. The more effective the clients believed COC was, the more likely they were to use it.”<sup>84</sup> Thus, it is at least partially attitudes toward the efficacy of COCs which is keeping doctors in China from prescribing them more regularly.

The most striking statistics which point to the fact that Chinese women have strong incentives to use IUDs in China are comparisons with Hong Kong. In Hong Kong, 17.1 percent of married women use the birth control pill, while only 5.1 percent of them choose IUDs. By contrast, mainland China has 1.7 percent and 36.4 percent respectively for the same measures.<sup>85</sup> This is a highly significant difference. While there are many differences between Hong Kong and the mainland, race is not one of them. This shows that the high IUD rate in the PRC is the result of a social or economic difference, not a genetic one.

### **Age**

The urban-rural divide is not the only social distinction in China today. Perhaps even more important in terms of social stance in regard to sexuality is age. China's youth is moving increasingly toward a more open embrace of sexuality, and pre-marital sex in particular. The new literature of urban youth, such as the hugely successful *Shanghai Baby*, points to much more active sex lives for today's twenty-somethings than their parents had.

China has a conservative attitude towards pre-marital sex, and this has had direct consequence for the birth control choices of youth. The fact that unmarried couples are not

afforded access to free contraception means that they are outside the main conduits of government-sponsored choices. What this means in practice is that young or unmarried couples are much more likely to use over-the-counter methods of birth control. Since both condoms and pills are freely available in cities—the former at any corner store, and the latter at any pharmacy—these are methods which are more appealing to unmarried couples. A population researcher told me that, “young people are more likely to use pills, they just get them from the pharmacy.”<sup>86</sup>

Another difference between today's youth in China and their elders is their seeming disinterest in having a family of their own. “A record high 29 percent of urban twenty somethings profess little interest in marriage or children, according to a market research poll.”<sup>87</sup> The cost of raising a child is one major factor in this decision. The law states that children must have nine years of compulsory education, and that the State is not allowed to charge tuition for this. However, severe budget shortfalls mean that schools often charge fees for various services which the parents must pay in order to keep the children in school. In Beijing, for example, the nine years are estimated to cost parents around \$8,000 in total.<sup>88</sup>

Despite the fact that today's youth in China are more likely than their parents to engage in premarital sex, they are unlikely to know much about contraception. Due to conservative views by adults about premarital sex, sex education in schools is sorely lacking.<sup>89</sup> In the past, couples who got married were required to watch an instructional video on birth control before being granted their marriage license. This requirement has been recently removed. A recent survey carried out by a middle school student showed that 75 percent of middle-schoolers in Danzhou (in the Southern province of Hainan) learned about sex through pornography.<sup>90</sup>

## Conclusion

All of the preceding explorations only brush the surface of human choice within a given set of circumstances. Contraceptive choice, fused as it is with sexuality and all the attendant emotions thereof, is always a complicated issue. Many researchers discussing contraceptive choice start with the assumption that couples are working with a full knowledge of all their options. Clearly this is not always the case, and assuming that may mean missing out on some signals which indicate that more research is in order.

IUDs make personal sense to many women, as they provide a hassle-free, long-term solution to birth control. The SSRs which are being phased out are clearly not as effective, but they have been given to women in China for many years because they were cheap and plentiful. The newer copper IUDs will be a much more effective solution for woman, and the government should step up efforts to make sure that all women currently being fitted with IUDs receive the more effective option.

However, because some women cannot tolerate the side effects of IUDs, there will always be need for other contraceptive options. The disparity in contraceptive choices between Hong Kong and China indicates that there would be a substantial market for COCs if women and doctors were educated about both efficacy and side effects of birth control pills.

Married couples, although the recipients of much focus from the government on the topic of contraception, are still under-serviced. The standard progression from IUD to sterilization is not flexible enough to meet everyone's needs. Married couples need information and access to other forms of contraception as well.

The Chinese government is slowly starting to realize that contraception is not a problem for married couples alone. Changing social mores mean that the government will have to reach out more and more to the youth. Comprehensive sexual education classes at all levels of school would be a huge start. Young people do not only need education, however, but access to contraception as well. While it is easy for urban youth to get condoms and pills, other methods are not as accessible.

The migrant population is also under-reached by current government programs. Providing contraceptive counseling to migrants, who are often from areas already under-serviced by health care workers, would be a very good way for the government to begin educating people about their choices.

Despite the fact that China has very high contraceptive use by international standards, in studies, “the incidence of unintended pregnancies and induced abortions could be reduced by more effective and accessible contraception.”<sup>91</sup> Getting more information to patients and granting them more choices for contraception is ultimately the best way to lower the

unintended pregnancy rate.

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- <sup>2</sup>United Nations, Population Division, *World Contraceptive Use 2003*.
- <sup>3</sup>Marriage Law of the People's Republic of China. Chapter 1, Article 2.
- <sup>4</sup>US Food and Drug Administration, *Choosing a Contraceptive*, PUBLICATION NO. (FDA) 94-1213.
- <sup>5</sup>*Ibid.*
- <sup>6</sup>Junling Chen, et al., "The Acceptability of Combined Oral Hormonal Contraceptives in Shanghai, People's Republic of China," *Contraception* 67 (2003): 281–285.
- <sup>7</sup>Milwertz, 108.
- <sup>8</sup>Milwertz, 109.
- <sup>9</sup>Nancy L. Stanwood, et al., "Obstetrician-Gynecologists and the Intrauterine Device: A Survey of Attitudes and Practice," *Obstetrics & Gynecology* 99 no.2 (2002): 275-280.
- <sup>10</sup>Chen, 285.
- <sup>11</sup> Alvesson, M. and K. Sköldberg. *Reflexive Methodology: New vistas for qualitative research*. London: Sage 2000. p. 111.
- <sup>12</sup> *Ibid.* p. 116.
- <sup>13</sup>"Education Key to Family Planning Services," *People's Daily*, August 20, 2001. Accessed <http://www.china.org.cn/english/GS-e/17765.htm> May 29, 2004.
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- <sup>15</sup> Gilmartin, Hershatter, Rofel, and White eds. *Engendering China*. (Harvard University Press: Cambridge, 1994). p. 262.
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- <sup>18</sup> Poston. p. 219.
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- <sup>22</sup>Honig, Emily and Gail Hershatter. *Personal Voices: Chinese Women in the 1980's*. (Stanford University Press: Stanford, 1988)p. 188.
- <sup>23</sup>*Ibid.*, 275.

- <sup>24</sup>Thanks to Professor Chen for his illuminating lecture on Population in China at Fudan, Thursday September 9<sup>th</sup>, 2004.
- <sup>25</sup>Philip P. Pan. "China's One-Child Policy Now a Double Standard." *The Washington Post*, August 20, 2002.
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- <sup>28</sup>Ibid.
- <sup>29</sup>"Scholars Propose Ending One-Child Rule in China," *Asian Wallstreet Journal*, October 4, 2004.
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- <sup>36</sup>Djerassi, C. "Fertility Limitation Through Contraceptive Steroids in the People's Republic of China," *Studies in Family Planning*, 1974, 5(1): 17.
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- <sup>41</sup>Ibid. p.22.
- <sup>42</sup>See [http://www.pbs.org/wgbh/amex/pill/gallery/gal\\_pill\\_14.html](http://www.pbs.org/wgbh/amex/pill/gallery/gal_pill_14.html) for a picture.
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