

Adolescent Pregnancy, Abortion and Birth Rates across Countries

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Preliminary findings – do not disseminate

Introduction

Teen^{*} pregnancies can influence women's education prospects, economic opportunities, health and completed family size.¹ Although adolescent pregnancies, especially unintended pregnancies, might carry greater risk of adverse consequences in developing countries with limited resources and restrictive abortion laws, pregnancy and childbirth among young women in developed countries can also pose challenges to their social, economic and physical well-being. Periodic estimation of pregnancies, births and abortions among adolescents can bring attention to countries where the levels of any of these events are exceptionally high or low, and can motivate further research and policy action where needed.

The most recent reviews of adolescent pregnancy rates in developed countries and childbearing rates in developing countries covered trends up to the mid 1990s, and found that these events were becoming less prevalent in the majority of countries for which evidence was available.^{2,3}

We examine levels of adolescent pregnancy, abortion[†] and childbearing in all developed and developing countries for which recent information could be obtained.[‡] We primarily present estimates for 2011, the most recent year for which information is available for most countries that regularly compile relevant data, to enable cross-country comparisons. We examine trends in countries for which estimates for the mid 1990s were previously published, if estimates for both time periods are deemed reliable.

Of the different components of pregnancy outcomes (births, miscarriages and abortions), information on abortion incidence is most limited. While reliable evidence is available for many developed countries with liberal abortion laws, estimates of adolescent abortion rates, and therefore of pregnancy rates, are available for only a few developing countries. Thus the majority of findings presented here are for developed countries.

Data Sources

To estimate teen pregnancy rates we require data on numbers of abortions, births and females aged 15-19. For most countries, information on all three components was obtained, in descending order of preference, from countries' published vital statistics reports, compilations of these reports in United Nations (UN) Statistics Division Demographic Yearbook,⁴⁻⁶ the Transformative Monitoring for Enhanced Equity (TransMonEE) Database maintained by UNICEF,^{§7} or the UN Population Division Population Projections.⁸

* The terms "teens" and "adolescents" are used interchangeably in this report to refer to 15-19 year-olds.

† Unless otherwise indicated, "abortion" refers to induced abortions throughout this report.

‡ We employ the United Nations classification of developed and developing countries.

§ The TransMonee database encompasses indicators of the welfare of children, young people and women in Central and Eastern Europe.

For the most part, abortion reports to government agencies include only procedures that were performed within the bounds of the law. Nearly all, if not all, abortions performed in countries with liberal abortion laws are legal; exceptions include, for example, abortions performed after the legally allowed gestational limit or by unauthorized providers.

For a number of countries lacking reliable official counts of abortion incidence by age, we used abortion estimates from alternate sources. For the United States, we used findings for 2008 from a census of abortion providers conducted by independent researchers, as these data are more complete than government reports.^{**8} For a few countries with restrictive abortion laws, we use estimates of age-specific abortion rates that have been made on the basis of nationally representative studies.

For countries with liberal abortion laws, countries were classified according to whether their abortion data were deemed complete (ie, likely to include at least 90% of all legal abortions) or likely to be incomplete. Classifications were made on the basis of expert assessments obtained for a recent study of abortion incidence.⁹ Pregnancy rates are shown separately for countries with abortion estimates from nationally representative studies. The potential sources and directions of error from these studies are briefly discussed. These estimates include both legal and illegal abortions.

The incidence of miscarriage was estimated on the basis of data on births and abortions. Clinical studies of pregnancy loss by gestational age indicate that recognized miscarriages at five or more weeks' gestation are equal to approximately 20% of births plus 10% of induced abortions.¹⁰ Findings from recent surveys of women in the United States support these model-based estimates.¹¹

Countries are only included if estimates of both births and abortions to teens are available. Pregnancy, abortion and birth rates are calculated as the number of events per 1,000 females 15-19 per years old. The age of the adolescent is measured as age at outcome.

Adolescent pregnancy rates are presented for 43 countries, and abortion rates are deemed reliable for 21 of these countries. Trends in adolescent pregnancy and abortion rates from the mid-1990s to 2008-2011 are assessed for 18 countries for which rates were available and reliable in both time periods. Trends in childbearing rates can be assessed even for countries with incomplete abortion and pregnancy rates, because birth rates are not vulnerable to substantial underreporting. These trends are presented for 36 countries with estimates in both time periods.

Preliminary Results

Teen pregnancy, abortion and birth rates are presented in Table 1 and Figure 1. Among the countries with reliable teen pregnancy rates, the highest by far is in the US (68 pregnancies per 1,000 15-19 year olds in 2008). Rates are also fairly high in New Zealand, England and Wales and Scotland (46-51). Teen pregnancy rates are also exceptionally high in Bulgaria and in Azerbaijan (at least 72 and 67, respectively), where abortion reporting is incomplete and pregnancy rates are therefore underestimated. The lowest teen pregnancy rates in countries with reliable statistics are in Switzerland and Germany (8-9 per 1,000).

^{**} Estimates of abortion by age in the US in 2010 are expected to become available in January 2014.

Of the countries with complete abortion records, the teen abortion rates are highest in France, Sweden and England and Wales (20-21), and it is 18 in the US. The teen abortion rate is lowest in Switzerland (5) and it is below 10 per 1,000 in eight countries.

Unlike data on abortions, data on births tend to be reliable across countries. The highest observed rate is in Azerbaijan (54). The teen birth rate is higher in the US (40 in 2008) than in any northern, western or southern European country, and it is about three times higher than the rate in Canada. The lowest teen birth rate is in Hong Kong (4). This review is limited to countries for which overall pregnancy rates are available, and the teen birth rates may be higher or lower than those presented here in countries that are not included in this review. Information is not available to assess the proportion of births that were unplanned.

In Sweden, almost 70% of teen pregnancies end in abortion. In Slovakia only 18% of teen pregnancies end in abortion, and in the US, a relatively small proportion (27%) of teen pregnancies end in abortion.

The teen pregnancy rate has declined in the majority of countries for which information on trends is available (not shown).

Pending analyses include the following:

- assessments of trends in abortion, childbearing and pregnancy rates
- examination of pregnancy rates among very young adolescents (10-14 years old)
- estimation of pregnancy rates in a few developing countries for which teen abortion estimates can be estimated from nationally representative studies.

We will discuss possible explanations for variations in teen abortion and birth levels and trends, and in the proportion of teen pregnancies that end in abortion.

Table 1. Adolescent birth, abortion and pregnancy rates and percent of pregnancies ending in abortion, 2011.

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| Country | Rates per 1,000 females 15-19 years old | | | % of pregnancies that end in abortion |
|---|---|-----------|--------|---------------------------------------|
| | Pregnancies | Abortions | Births | |
| <u>Countries with complete abortion statistics</u> | | | | |
| Belgium* | 21 | 8 | 10 | 38 |
| Denmark | 21 | 14 | 5 | 67 |
| England and Wales | 47 | 20 | 21 | 42 |
| Estonia* | 43 | 19 | 19 | 43 |
| Finland | 23 | 13 | 8 | 55 |
| France | 31 | 21 | 7 | 67 |
| Germany | 9 | 2 | 5 | 23 |
| Hungary | 41 | 17 | 18 | 41 |
| Iceland | 30 | 15 | 11 | 51 |
| Israel | 23 | 8 | 13 | 32 |
| Netherlands* | 14 | 7 | 5 | 50 |
| New Zealand | 51 | 18 | 26 | 36 |
| Norway | 23 | 13 | 7 | 56 |
| Portugal* | 27 | 8 | 15 | 30 |
| Scotland | 46 | 17 | 23 | 37 |
| Singapore* | 15 | 8 | 5 | 55 |
| Slovakia | 34 | 6 | 22 | 18 |
| Slovenia | 13 | 6 | 5 | 48 |
| Spain | 23 | 13 | 10 | 58 |
| Sweden* | 29 | 20 | 6 | 69 |
| Switzerland | 8 | 5 | 2 | 59 |
| United States* | 68 | 18 | 40 | 26 |
| | 8 | | | |
| | 68 | | | |
| <u>Countries with incomplete official abortion statistics</u> | | | | |
| Armenia | 37 | 5 | 26 | 13 |
| Azerbaijan | 67 | 2 | 54 | 3 |
| Belarus | 34 | 8 | 21 | 24 |
| Bulgaria | 72 | 18 | 44 | 25 |
| Canada* | 34 | 15 | 14 | 45 |
| Croatia | 17 | 3 | 11 | 17 |
| Czech Republic | 21 | 7 | 11 | 34 |
| Georgia | 61 | 9 | 43 | 15 |
| Hong Kong* | 10 | 5 | 4 | 51 |
| Hungary | 40 | 17 | 18 | 41 |
| Japan * | 13 | 7 | 5 | 52 |
| Kazakhstan | 40 | 4 | 29 | 10 |
| Kyrgyzstan | 57 | 6 | 41 | 11 |

| | | | | |
|--------------------|----|----|----|----|
| Latvia | 28 | 9 | 15 | 33 |
| Lithuania | 23 | 5 | 15 | 21 |
| Macedonia | 25 | 3 | 18 | 11 |
| Moldova | 45 | 13 | 26 | 29 |
| Mongolia * | 29 | 5 | 20 | 17 |
| Montenegro | 19 | 1 | 14 | 6 |
| Romania | 63 | 18 | 37 | 28 |
| Russian Federation | 51 | 17 | 27 | 34 |
| Serbia | 26 | 3 | 19 | 11 |

*Estimates for Mongolia, the Netherlands and the US are for 2008; Belgium, Canada, Hong Kong and Portugal are for 2009; and Japan, Sweden and Singapore are for 2010.

**Pregnancies are comprised of miscarriages (not shown), abortions and births.

Notes:

Armenia: Abortion estimate might include miscarriages

Cuba: Does not include menstrual regulations

France: Population estimate are for the start of the year

Georgia: Does not include Abkhazia and Tskhinvali.

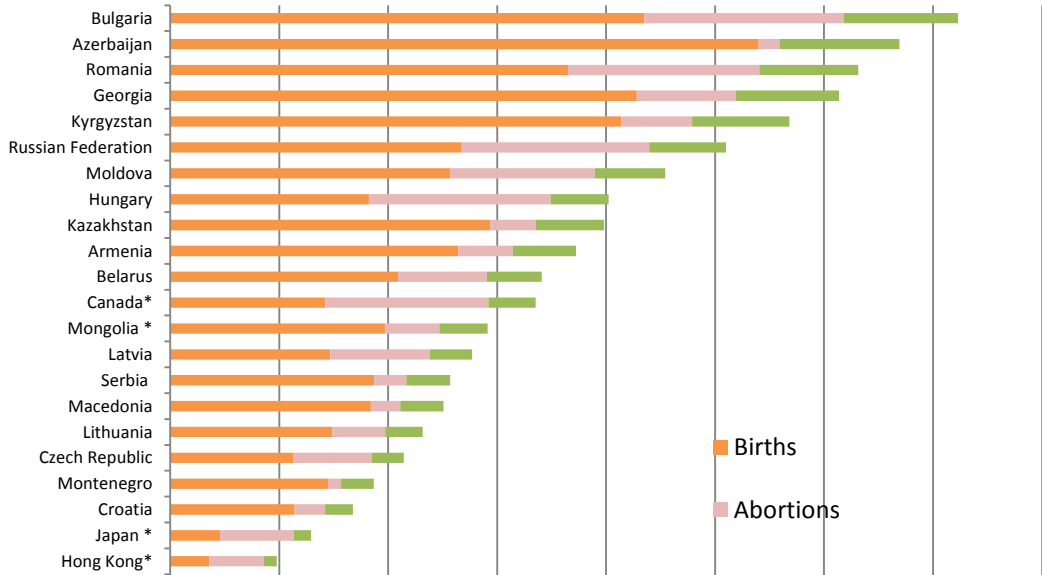
Germany Includes abortions for <=17 year olds only

Kazakhstan: Includes abortions for women <=18 only

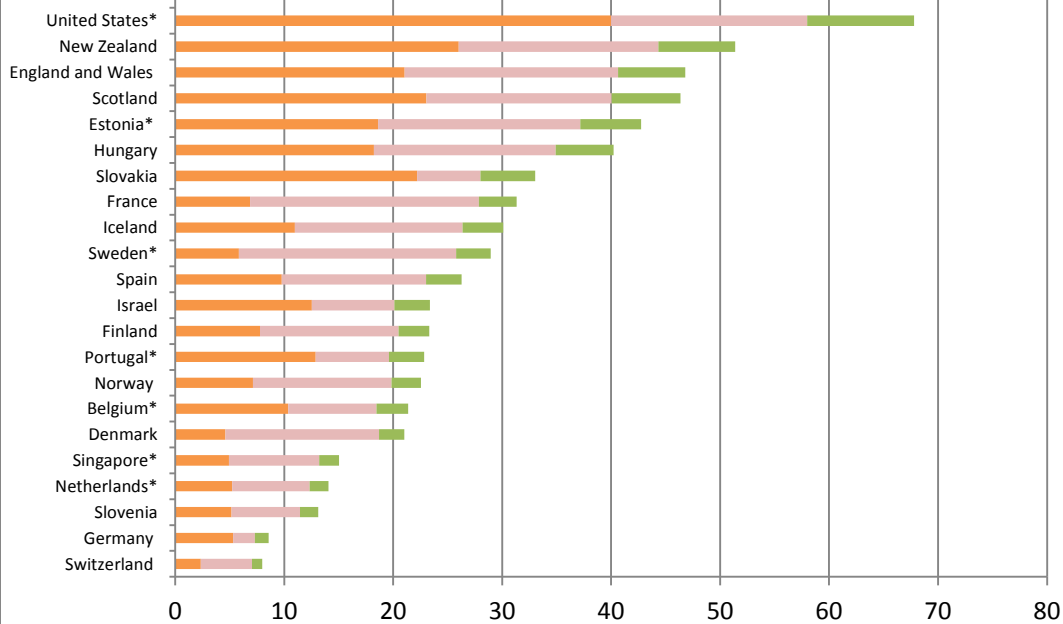
Moldova: Does not include Transdniestr.

Figure 1. Adolescent birth, abortion and miscarriage rates, 2011

Countries with complete abortion records



Countries with incomplete abortion records



*See Table 1 for reference year.

References

¹ References to be added.

² Singh S and Darroch J, Adolescent pregnancy and childbearing: Levels and trends in developed countries, IFPP 2000.

³ Singh S, Adolescent childbearing in developing countries: a global review, *Studies in Family Planning*, 1998, 29(2):117-136.

⁴ UN, *2011 Demographic Yearbook*, New York: UN, 2012.

⁵ UN, *2009-2010 Demographic Yearbook*, New York: UN, 2011.

⁶ UN, *2008 Demographic Yearbook*, New York: UN, 2009.

⁷ UNICEF, The Transformative Monitoring for Enhanced Equity (TransMonEE), *Database*, 2013, <<http://www.transmonee.org/>>, accessed Sept. 1, 2013.

⁸ References to be added

⁹ Sedgh G et al., Legal abortion worldwide in 2008: levels and recent trends, *International Perspectives on Sexual and Reproductive Health*, 2011, 37(2):84-94.

¹⁰ Bongaarts, J and Potter RE, *Fertility, Biology and Behavior*, New York: Academic Press, 1983.

¹¹ Finer LB and Henshaw SK, Disparities in rates of unintended pregnancy in the United States, 1994 and 2001, *Perspectives on Sexual and Reproductive Health*, 2006, 38(2), 90-96.