The Influence of Abortion Access on Fertility Rates: A Multi-Country Analysis of Adolescents

Many of the international targets to improve reproductive health, and ultimately reproductive health outcomes, set benchmarks or targets for countries to reach by a fixed time period. For example, the Millennium Development Goals (MDGs), has a broad target of "achieving universal access to reproductive health care" (MD5b), has an indicator of "adolescent birth rate", which needs to be tracked over time. The adolescent birth or fertility rate (AFR) is readily available (e.g. please refer to http://data.worldbank.org/indicator/SP.ADO.TFRT). In countries with high rates of facility-based births, the adolescent fertility rate is likely relatively well measured. In contrast, in settings with low rates of facility-based births and poor vital registration systems, the AFR is likely an underestimate of births to 15-19 year olds.

A larger issue is the measure itself—or what the AFR reflects. While adolescent births are an important indicator, and potentially related to adverse health consequences for mothers and children, the AFR is a proxy for the ideal indicator—unwanted pregnancy. Many programs and government and international guidelines aim to lower the unwanted pregnancy rate, however its measurement is problematic. First, in many settings, sexual activity is underreported, particularly for adolescents. In fact, in many settings the only adolescents who admit to sexual activity are those in unions, or those who are pregnant or have a child. Second, in many settings, abortion is not legally or societally sanctioned, leading to significant underreporting.

Without large scale pregnancy testing or a significant change is social norms regarding sexual activity and/or abortion, we will continue to underestimate the unwanted pregnancy rates—which is the ultimate goal of most policies and programs. While a number of organizations are working towards getting better estimates of abortion, including the Guttmacher Institute and World Health Organization, the estimates for adolescents are based on very small sample sizes.

This paper explores the potential relationship between adolescent fertility rates and abortion in 182 countries. The hypothesis is that in countries that have lower AFRs, access to abortion is easier—in contrast, where abortion access is constrained, the AFR will be higher. Using the AFR data from the World Bank, and data from about the availability of available abortion (number of legal reasons acceptable at the country level for accessing abortion, on a scale from 0-7 reasons) from the UN Population Division (http://www.un.org/en/development/desa/population/publications/pdf/policy/WorldAbortionPolicies2013/WorldAbortionPolicies2013_WallChart.pdf) , an ecological analysis will be performed. Preliminary results are shown below.

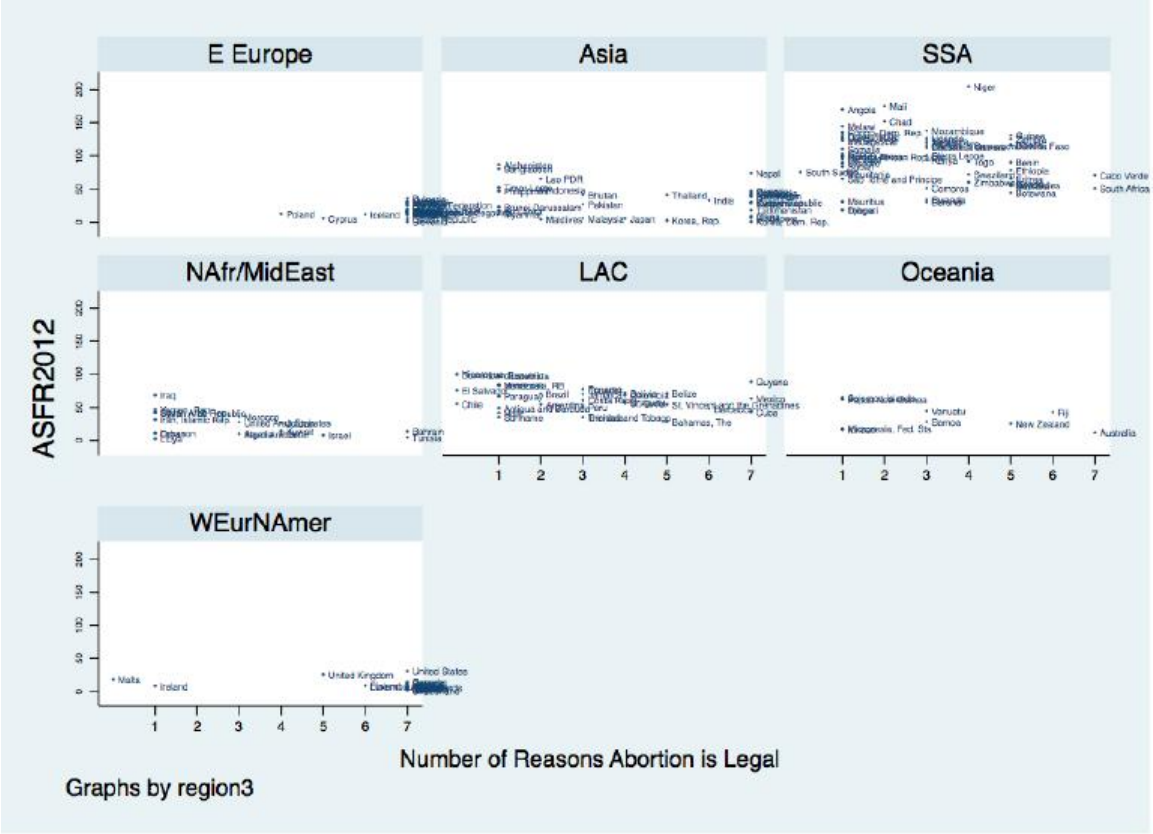
Preliminary Results:

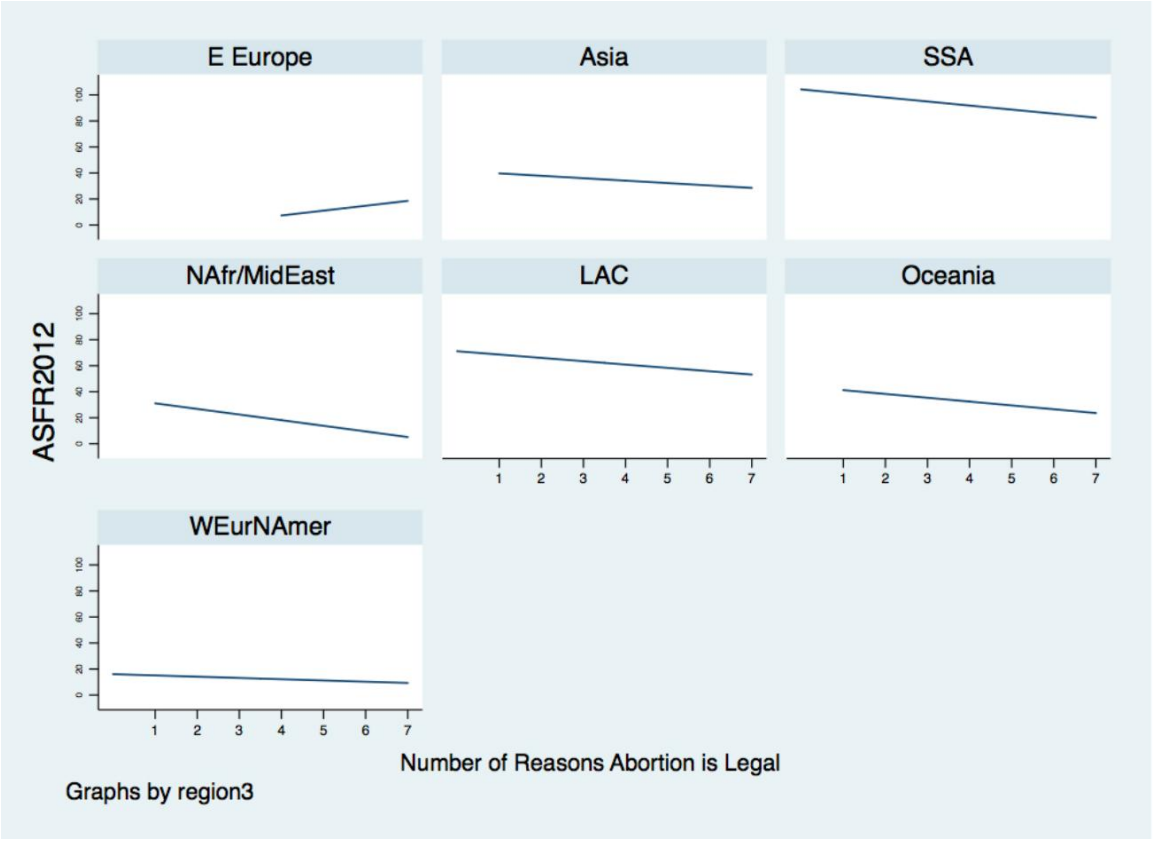
Overall, there is a statistical significant association between AFR and abortion laws—for each additional reason where abortion is permissible, the country has 7.3

fewer adolescent births per 1000 adolescents. In all geographic regions except Eastern Europe (Beta=3.75, p=0.14), there is an inverse association between the AFR and number of circumstances under which abortion can be legally provided (Beta=-6.4, p=0.001). The largest association is found in the 18 countries in North Africa and the Middle East (Beta=-4.32, p=0.04). The other regions trend in a same direction, but none are statistically significant.

Future Directions:

A more sophisticated analysis including lagging, different assessments using other regional groupings, as well mulitivariable adjustment and assessment of specific case examples will be explored in-depth. Further identification of outliers will be assessed as well.

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Number of Reasons Abortion is Legal
Graphs by region3