

The Maternal and Child Health Equity (MACHEquity) research program examines how social policies focused on reducing poverty, income and gender inequality impact the health of children and women under the age of 50. We know that poverty and social disadvantage greatly affect health and health equity, but our understanding of how policies can improve population health is limited. By analyzing the effects of national and sub-national policies, MACHEquity is creating novel research on the use of policy to improve health and reduce persistent health inequalities.

PROGRAM DESCRIPTION

MACHEquity is a multinational research project coordinated by McGill University and funded by the Canadian Institutes of Health Research, with additional funding from the Bill & Melinda Gates Foundation and the Clinton Foundation. It has collaborating centres at Bristol University, the UCLA World Policy Analysis Center, Universidad Peruana Cayetano Heredia, and the Indian Institute of Management-Bangalore.

MACHEquity has developed comprehensive databases of national policies worldwide and is merging them with rich sources of household survey data to understand how broad policies can affect the health of individuals. We then apply a variety of statistical analyses to estimate the impact of these national policies on population health and health inequalities, prioritizing the outcomes highlighted by the Millennium Development Goals and the upcoming Sustainable Development Goals.

Our program welcomes collaborations with other academic, non-governmental, and government institutions. Jointly, we can develop research questions that are relevant and have the potential to influence policy change and subsequently health outcomes; perform analyses that can evaluate policy impact; and share results widely with diverse audiences. Our data can be visualized, compared and downloaded at www.machequity.com, and our program staff is always available to answer any questions about how to interpret and use it.

OUR POLICY DATA

To properly evaluate policy effects, the MACHEquity team has collected historical data dating back to 1995 on a number of policies, including: maternity leave, breastfeeding breaks, minimum wage, minimum age of marriage, unemployment insurance and family benefits policies in up to 193 UN Member States; some of our datasets capture legislative guarantees only for 121 low- and-middle income countries surveyed by the Demographic and Health Surveys (DHS).

Maternity Leave: This dataset captures whether women have a legislated right to paid maternity leave. It includes information on whether paid leave is available for mothers to care for their infants, its length, and the rate at which wages are replaced. We report the leave available under normal conditions and do not include additional entitlements for extraordinary circumstances such as multiple births, subsequent births, or childbirth complications.

Breastfeeding Breaks at Work: This dataset captures whether nursing women have a legislated right to breastfeeding breaks at work. The dataset includes information on whether such breaks are paid, and the length of entitlement to breaks.

Minimum Wage: This dataset captures whether a minimum wage policy exists in a country, and provides its amount over time for private sector employees. In countries where the minimum wage is sector-specific or occupation-specific, we captured the minimum wage

level applicable to either the manufacturing sector or unskilled workers.

Unemployment Insurance Benefits: This dataset captures the existence of policies establishing cash benefits during periods of unemployment.

Family Cash Benefits: This dataset captures the existence of policies establishing cash family allowances that for families with children. We also indicate whether such allowances are subject to a means-test, and whether they are universal or only available to certain groups such as single-parent families, large families or orphans.

Child Labour: This dataset captures the legal minimum age at which children are permitted to perform light, general and hazardous work as well as information on the number of hours children are permitted to work on a school day and at night.

Minimum Age of Marriage: This dataset captures the minimum age at which boys and girls can legally marry. It also includes information on whether exceptions can be made, and what conditions need to be fulfilled for these exceptions. Each variable is coded for girls and for boys separately making it possible to analyze gender differences in such legal protections.

PRELIMINARY FINDINGS

MACHEquity has conducted analyses using several of these databases, rigorously investigating the effects of policies on maternal and child health.

Maternity Leave: Our early findings show that the availability of maternity leave can make a significant difference in preventing infant mortality: Each additional month of leave can prevent 14% of deaths of children under the age of one. Our research also shows that this may be caused in part by the effect of maternity leave on vaccination rates: each additional week of leave increases the likelihood that mothers will

have their children vaccinated against diseases such as diphtheria or tetanus.

Breastfeeding Breaks at Work: Recent findings show that women employed in the formal sector in countries with workplace policies that facilitate breastfeeding are more likely to continue breastfeeding for the WHO-recommended duration of 6 months. This is especially true for the poorest working women, who are between 10% and 20% less likely to stop breastfeeding their infant.

Minimum Wage: Our results show that minimum wage has a relatively small effect on child nutrition; although some sectors and regions of the world do better than others, raising the minimum wage for parents may not significantly improve their children's health.

Minimum Age of Marriage: Our research comparing legislation in 12 sub-Saharan African countries found that countries that consistently protect the rights of girls under 18 have child marriage rates that are 40% lower and teen pregnancy rates that are 25% lower. Further work currently underway will look at the effects of these laws in more countries and regions.

Country studies: MACHEquity doctoral fellows are also evaluating policy effects in individual countries by analyzing specific interventions. For example, the Peruvian conditional cash transfer program JUNTOS has been found to reduce child malnutrition and underweight status in women.

FUTURE WORK

Our policy databases can be used by researchers to explore the effects of policy on other outcomes, health and non-health related. Work is ongoing on other maternity leave, child marriage, family and unemployment benefits, and minimum wage projects. We expect our work on child labour to be released in the next year.