

South-East Asia Networks for Newborn & Birth Defect



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This Month...

Birth Defects

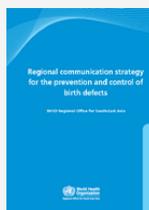
- [Prevalence of birth defects among American-Indian births in California, 1983-2010.](#)
- [Is the probability of prenatal diagnosis or termination of pregnancy different for fetuses with congenital anomalies conceived following assisted reproductive techniques? A population-based evaluation of fetuses with congenital heart defects.](#)

Newborn

- [Impact of a community-based perinatal and newborn preventive care package on perinatal and neonatal mortality in a remote mountainous district in Northern Pakistan](#)
- [Neurodevelopmental outcome of high risk newborns discharged from special care baby units in a rural district in India.](#)

Publications

Regional communication strategy for the prevention and control of birth defects



For the prevention and management of birth defects, an enabling and supportive environment is crucial to encourage individuals, families and communities to adopt and sustain new behaviours. This is achieved through a range of health communication activities including community mobilization and media campaigns. Public campaigns need to focus on alleviating the stigma related to birth defects and sensitively address cultural and religious issues such as consanguinity, myths and misconceptions around birth defects.

[Read full publication](#)

Birth Defects

Prevalence of birth defects among American-Indian births in California, 1983-2010.

[Birth Defects Res A Clin Mol Teratol.](#) 2015 Feb;103(2):105-10. doi: 10.1002/bdra.23341.

[Aggarwal D](#) 1, [Warmerdam B](#), [Wyatt K](#), [Ahmad S](#), [Shaw GM](#).

[Author information](#)

Abstract

Background

Approximately 6.3 million live births and fetal deaths occurred during the ascertainment period in the California Birth Defects Monitoring Program registry. American-Indian and non-Hispanic white women delivered 40,268 and 2,044,118 births, respectively. While much information has been published about non-Hispanic white infants, little is known regarding the risks of birth defects among infants born to American-Indian women.

Methods

This study used data from the California Birth Defects Monitoring Program to explore risks of selected birth defects in offspring of American-Indian relative to non-Hispanic white women in California. The study population included all live births and fetal deaths 20 weeks or greater from 1983 to 2010. Prevalence ratios and corresponding 95% confidence intervals (CI) were computed using Poisson regression for 51 groupings of birth defects.

Results

Prevalence ratios were estimated for 51 groupings of birth defects. Of the 51, nine had statistically precise results ranging from 0.78 to 1.85. The eight groups with elevated risks for American-Indian births were reduction deformities of brain, anomalies of anterior segments, specified anomalies of ear, ostium secundum type atrial septal defect, specified anomalies of heart, anomalies of the aorta, anomalies of great veins, and cleft lip with cleft palate.

Conclusion

Our results suggest that American-Indian women having babies in California may be at higher risk for eight birth defect phenotypes compared with non-Hispanic whites. Further research is needed to determine whether these risks are observed among other populations of American-Indian women or when adjusted for potential covariates. Birth Defects Research (Part A) 103:105-110, 2015 © 2015 Wiley Periodicals, Inc

Is the probability of prenatal diagnosis or termination of pregnancy different for fetuses with congenital anomalies conceived following assisted reproductive techniques? A population-based evaluation of fetuses with congenital heart defects.

[BJOG.](#) 2015 Mar 6. doi: 10.1111/1471-0528.13345. [Epub ahead of print] [Taraarbit K](#) 1, [Lelong N](#), [Jouannic JM](#), [Goffinet F](#), [Khoshnood B](#); [the EPICARD Study Group](#).

[Author information](#)

Abstract:

OBJECTIVE:

To compare the probability of prenatal diagnosis (PND) and termination of pregnancy for fetal anomaly (TOPFA) between fetuses conceived by assisted reproductive techniques (ART) and

spontaneously-conceived fetuses with congenital heart defects (CHD).

DESIGN:

Population-based observational study.

SETTING:

Paris and surrounding suburbs.

POPULATION:

Fetuses with CHD in the Paris registry of congenital malformations and cohort of children with CHD (Epicard).

METHODS:

Comparison of ART-conceived and spontaneously conceived fetuses taking into account potential confounders (maternal characteristics, multiplicity and year of birth or TOPFA).

MAIN OUTCOME MEASURES:

Probability and gestational age at PND and TOPFA for ART-conceived versus spontaneously conceived fetuses.

RESULTS:

The probability of PND (28.1% versus 34.6%, $P = 0.077$) and TOPFA (36.2% versus 39.2%, $P = 0.677$) were not statistically different between ART-conceived ($n = 171$) and spontaneously conceived ($n = 4620$) fetuses. Estimates were similar after adjustment for potential confounders. Gestational age at PND tended to be earlier for ART fetuses (23.1 versus 24.8 weeks, $P = 0.05$) but no statistical difference was found after adjustment for confounders. Gestational age at TOPFA was comparable between ART-conceived and spontaneously conceived fetuses.

CONCLUSIONS:

In our population, ART conception was not significantly associated with the probability of PND or TOPFA for CHD. One implication of our results is that live births may be adequate for assessing the overall risk of CHD related to ART. However, total prevalence, in particular of severe CHD, would not be adequately assessed if TOPFA are not included. © 2015 Royal College of Obstetricians and Gynaecologists.

Newborn

Impact of a community-based perinatal and newborn preventive care package on perinatal and neonatal mortality in a remote mountainous district in Northern Pakistan

[BMC Pregnancy Childbirth](#). 2015 Apr 30;15(1):106. [Epub ahead of print]

[Memon ZA](#) 1 , [Khan GN](#) 2 , [Soofi SB](#) 3 , [Baig IY](#) 4 , [Bhutta ZA](#) 5, 6 .

[Author information](#)

Abstract

BACKGROUND:

There is limited evidence from community-based interventions to guide the development of effective maternal, perinatal and newborn care practices and services in developing countries. We evaluated the impact of a low-cost package of community-based interventions implemented through government sector lady health workers (LHWs) and community health workers (CHWs) of a NGO namely Aga Khan Health Services on perinatal and neonatal outcomes in a sub-population of the

remote mountainous district of Gilgit, Northern Pakistan.

METHODS:

The package was evaluated using quasi experimental design included promotion of antenatal care, adequate nutrition, skilled delivery and healthy newborn care practices. Control areas continued to receive the routine standard health services. The intervention areas received intervention package in addition to the routine standard health services. Outcome measures included changes in maternal and newborn-care practices and perinatal and neonatal mortality rates between the intervention and control areas.

RESULTS:

The intervention was implemented in a population of 283324 over a 18 months period. 3200 pregnant women received the intervention. Significant improvements in antenatal care (92% vs 76%, $p < .001$), TT vaccination (67% vs 47%, $p < .001$), institutional delivery (85% vs 71%, $p < .001$), cord application (51% vs 71%, $p < .001$), delayed bathing (15% vs 43%, $p < .001$), colostrum administration (83% vs 64%, $p < .001$), and initiation of breastfeeding within 1 hour after birth (55% vs 40%, $p < .001$) were seen in intervention areas compared with control areas. Our results indicate significant reductions in mortality rates in intervention areas as compared to control areas from baseline in Perinatal Mortality Rate (from 47.1 to 35.3 per 1000 births, OR 0.62; 95% CI: 0.56-0.69; P 0.02) and neonatal mortality rates (from 26.0 to 22.8 per 1000 live births, 0.58; 95% CI: 0.48-0.68; P 0.03).

CONCLUSIONS:

The implementation of a set of low cost community-based intervention package within the health system settings in a mountainous region of Pakistan was found to be both feasible and beneficial. The interventions had a significant impact in reduction of the burden of perinatal and neonatal mortality.

Neurodevelopmental outcome of high risk newborns discharged from special care baby units in a rural district in India

[J Public Health Res.](#) 2015 Feb 19;4(1):318. doi: 10.4081/jphr.2015.318. eCollection 2015.

[Chattopadhyay N](#) 1, [Mitra K](#) 2 .

[Author information](#)

Abstract

BACKGROUND:

High risk newborns are most vulnerable to develop neuro-developmental delay (NDD). Early detection of delay in this group and identification of associated perinatal factors and their prevention can prevent disability in later life.

DESIGN AND METHODS:

Observational cohort study. Field based tracking and neuro-developmental screening of high risk newborns discharged between January 2010 to June 2012 from a district Hospital in India was conducted by a team of developmental specialists, using standardized tools like Denver Developmental Screening Tool II, Trivandrum Developmental Screening Chart and Amiel-Tison method of tone assessment. Associated perinatal factors were identified. Early intervention was initiated on those detected with NDD.

RESULTS:

Developmental delay was detected in 31.6% of study population. Prevalence of NDD was significantly higher in low birth weight (LBW, >2 kg), preterm (

CONCLUSIONS:

Incidence of NDD among high risk newborns is significantly high with LBW, prematurity and neonatal illnesses are major contributors. Most NDDs go undetected in the early years of life. Improved perinatal care, early detection and early intervention at the grass root level will bring down incidence of developmental challenges in this vulnerable group. Significance for public healthThe public health significance of this study lies in the fact that a large proportion of high-risk newborns in rural India were detected with developmental delay and some preventable perinatal and neonatal factors like prematurity, low birth weight, sepsis and meningitis were found to be associated with the problem. So, it suggests that prevention of these perinatal factors, timely detection with proper screening methods and early intervention will help curb the burden of disability in the community. Once a disability develops in a child, the magnitude of the problem swells in all aspects: medical, social and economic. But much of this burden can be lessened if we intervene early, as a third of most disabilities are preventable. Moreover, if we can identify the perinatal factors leading to neonatal brain damage and prevent them, much of the neuro-developmental delay can be averted..

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