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GENDER AND VACCINATION

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START CENTER
STRATEGIC ANALYSIS,
RESEARCH & TRAINING CENTER

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Agenda

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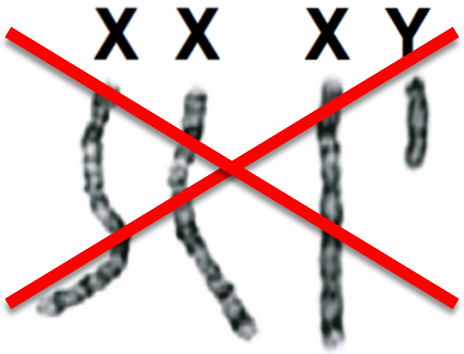
Gender Primer

Gender is….



> *"**Gender** is used to describe those characteristics of women and men which are socially constructed. Gender roles are learned through socialisation and are changeable rather than fixed."*
>
> *– GAVI Alliance Gender Policy*

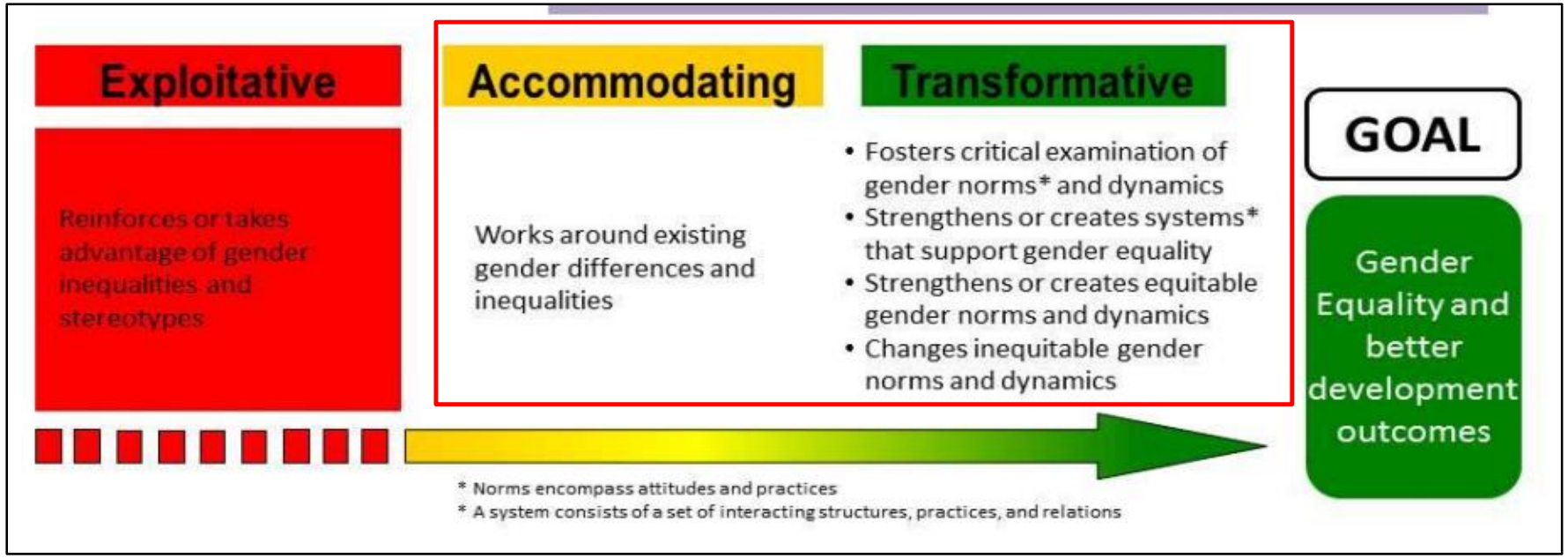
Gender Primer

Integrating a "Gender Lens" for development programs

- "Do No Harm"
- Accommodating & Transformative

Project-specific Lenses

- Aggregate vs. subnational
- Sex of child vs. gender issues among caretakers



IGWG Gender Integration Continuum

PROJECT OVERVIEW

Executive summary

Situation & objective	▫ Attention on gender justice and equity is increasing across the work of the Gates foundation, and the Vaccine Delivery (VxDel) team seeks to understand opportunities for their work on immunization to contribute ▫ Objective: Conduct a literature review on the relationship between gender equity and immunization in order to identify hypotheses for further exploration
Key insights	▫ Immunization coverage is impacted by unequal power dynamics at all levels of the social ecological model ▫ Programs targeting and accommodating women alone put responsibility for immunizations on women without giving them power – engaging men may expand responsibility to both parents and the broader community ▫ Health systems policies and procedures to address gender inequity could play a role in promoting more gender equitable norms ▫ Vaccination programs empowering young women and young mothers may have more significant benefits to vaccination outcomes than programs targeting the general population
Gaps and next steps	▫ Gaps in evidence are primarily related to: ▪ Subnational data collection and evaluation ▪ Quantitative data on gender related health system interventions that impact vaccination ▫ Potential next steps include: ▪ Explore specific hypotheses in depth ▪ Evaluating potential for cross-cutting collaboration across The Foundation

Literature review progress

Inclusion
- Justice and equality with vaccination
- Gender terms with vaccination terms or broader health system implication
- Population: children and LMICs
- Addresses systemic and sociological issues

Exclusion
- Non-vaccination/non health systems
- Non-maternal adult vaccination
- Non-LMICs
- Vaccine efficacy studies analyzing sex differences
- Irrelevant conditions/topics (i.e. diabetes)
- Scientific/clinical-focus

BMGF Resources: GEWE Strategy, RI Amphitheater, IVAC Summary, HPV Lessons Learned

Electronic Database Search
(n = unique articles after removing duplicates)

Web of Science (n = 35/257) ~~Pubmed (n = 75/642)~~
Google: Grey Literature (n = 11) Targeted (n = 15)

↓

Title and Abstract Screening (n = 61)

↓

Full Article Review (n = 44)

↓

Full Article Library (n = 37)

Gender terms	
gender	identity
sex	sexism
Interpersonal relations	
Vaccination terms	
vaccin*	vaccines
coverage	immun*/immunis*
delivery	
Justice and equality terms	
inequality	socioeconomic
inequity	bias

Overview of targeted search results

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Research on Humanities and Social Sciences
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Relationship between Child Immunization and Household Socio-Demographic Characteristic in Pakistan

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Abstract
The purpose of this study is to document the child immunization and its association with the household, socio demographic characteristics which effect child immunization of children aged 12 to 23 months Pakistan.The analysis in this study is based on the Household level data taken from the Pakistan Social and Living Standard Measurement Survey (PSLM) 2010 - 2011 carried out by the Federal Bureau of Statistic, Government of Pakistan. Chi-square test and logistic regression is used for the analysis of data. The results indicate that in case of child immunization, not only child s age, but also child's gender,resident of the child and he/she parents education, household income and family size plays a significant role. The gender differentials are more prominent in rural areas where negative impact on child immunization also exists due to the higher income inequality, among, household.The analysis of socio demographic characteristic provides the researchers, educationists and policy makers with a critical review of the issues at hand, so that appropriate policies and programmers can be designed for increasing child immunization in the country.
Keywords: Child Immunization, householdsocio-demographic characteristic, Logistic regression, Chi Square, Pakistan

Introduction
The most useful and the safest intervention in Public Health is the immunization. It is an estimated that three million lives can be saved by vaccination as it prevent diseases. Measles was the leading cause of death in year 2000 in Latin America. During that time 777,000 death occurred due to Measles whereas and 2 million disabilities have also been reported. Later Latin America and other industrial countries built resistance to 90 percent against this disease. It has also been observed that Middle East and North Africa also showed pertinent results against eradication of this disease whereas East Pacific needs to do more work on it to meet challenges against measles (Adeyinka et.al 2000).Different countries have different vaccination schedule.Pakistan is also following a schedule, related vaccination and implementation of this schedule is compulsory in the country. Polio is a disease which causes paralysis and vaccination process for it is given like first at the age of 2months then 4 months and then 6 months. Same pattern is being followed and recommended for Tetanus PantuisDipteri to prevent tuberculosis. The vaccination pattern against Chorinebacterium diphtheria bacteria is also 2, 4, and 6 months. This bacterium is present at the respiratory track in the nasal mucous membrane. DPT or Tetanus PeutuisDipterous vaccination is being used against it. One of the vaccination known as Hepatitis B vaccination is also very much important to prevent liver related diseases like acute liver inflammation etc. Vaccines against measles are recommended to give at the age of the 9 months. meningitis, pneumonia (pneumonia) and epiglottises can be prevented by vaccine of Haemophilusinfluenza type B (Hib) or B. Child can be protected from diphtheria and tetanus; for at least 10 years and there is possibility vaccination effects could prevent children from whooping cough. for at least 3 years more than this time. There is possibility that even vaccinated person could get disease later in life but it will not be as severe as non vaccinated person will face. The vaccinated child is protected from polio throughout life and measles.
According to World Health Organization, immunization has been found the most cost effective method for promotion of child health. It is playing a significant role in term of reducing cost related treatment of measles for provision of healthy childhood and minimizing poverty and sufferings. It is the primary objective of the Government Health Sector to increase reporting related immunization, as it is very difficult task to conduct household survey because mostly parents do not pay attention towards their children for timely Immunization due to different reasons. The reasons involve process of the immunization, lack of information about health cards, half information, forgetting immunization dates, underestimating the importance of immunization and confusion due to different type of immunization. Immunization is more protected and the most effective health to children and its reducing child mortality, morbidity and disability. It can be more protected for infants and cover child protection child abnormality and disability (Siddiqi et. al. 2005).
Directorate General Health Services, Government of the Punjab, 2009 found from World Health Organization

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Research Articles

- Uses DHS, national, and district-level data for evaluation
- Draws gendered insights on vaccination rates
- Targeted at a country/region

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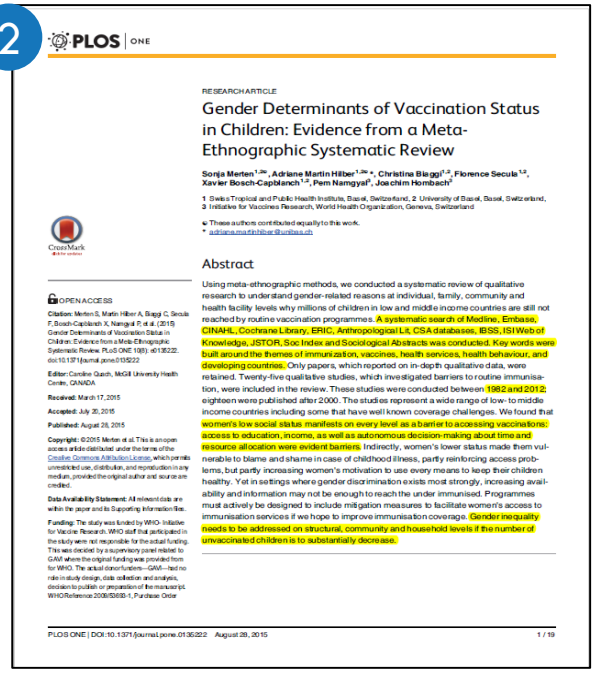

PLOS ONE

RESEARCH ARTICLE

Gender Determinants of Vaccination Status in Children: Evidence from a Meta-Ethnographic Systematic Review

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Data Availability Statement: All relevant data are within the paper and its Supporting Information files.

Funding: The study was funded by WHO- Initiative for Vaccine Research. WHO staff that participated in the study were not responsible for the actual funding. This was decided by a supervisory panel related to GAVI where the original funding was provided from for WHO. The actual donor funders—GAVI—had no role in study design, data collection and analysis, decision to publish or preparation of the manuscript. WHO Reference 2008/Ev/IVR-1, Purchase Order

Abstract

Using meta-ethnographic methods, we conducted a systematic review of qualitative research to understand gender-related reasons at individual, family, community and health facility levels why millions of children in low and middle income countries are still not reached by routine vaccination programmes. A systematic search of Medline, Embase, CINAHL, Cochrane Library, EPIC, Anthropological Lit, OSA databases, IBSS, ISI Web of Knowledge, JSTOR, Soc Index and Sociological Abstracts was conducted. Key words were built around the themes of immunization, vaccines, health services, health behaviour, and developing countries. Only papers, which reported on in-depth qualitative data, were retained. Twenty-five qualitative studies, which investigated barriers to routine immunisation, were included in the review. These studies were conducted between 1982 and 2012; eighteen were published after 2000. The studies represent a wide range of low- to middle income countries including some that have well known coverage challenges. We found that women's low social status manifests on every level as a barrier to accessing vaccinations: access to education, income, as well as autonomous decision-making about time and resource allocation were evident barriers. Indirectly, women's lower status made them vulnerable to blame and shame in case of childhood illness, partly reinforcing access problems, but partly increasing women's motivation to use every means to keep their children healthy. Yet in settings where gender discrimination exists most strongly, increasing availability and information may not be enough to reach the under immunised. Programmes must actively be designed to include mitigation measures to facilitate women's access to immunisation services if we hope to improve immunisation coverage. Gender inequality needs to be addressed on structural, community and household levels if the number of unvaccinated children is to substantially decrease.

PLOS ONE | DOI:10.1371/journal.pone.0135222 August 28, 2015 1 / 19

Systematic Reviews

- Literature reviews examining vaccination drivers
- Evaluate gender influences on vaccination rates and child health/nutrition

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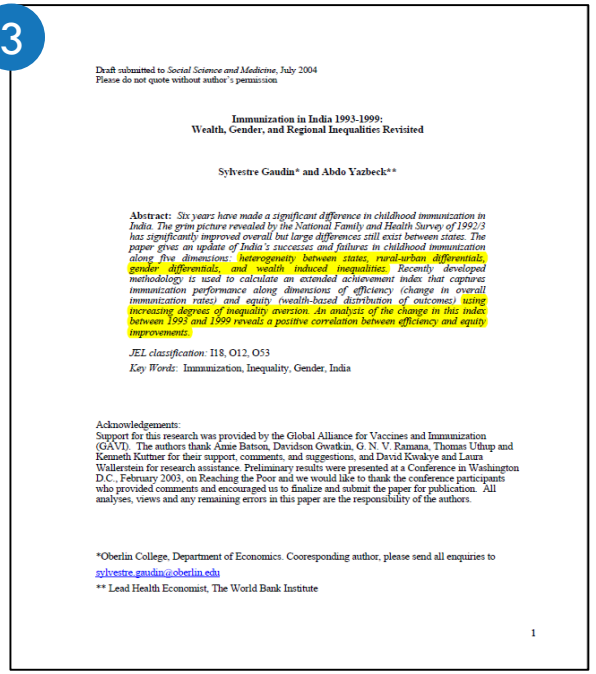

Draft submitted to *Social Science and Medicine*, July 2004
Please do not quote without author's permission

Immunization in India 1993-1999: Wealth, Gender, and Regional Inequalities Revisited

Sylvestre Gaudin* and Abdo Yazbeck**

Abstract: *Six years have made a significant difference in childhood immunization in India. The grim picture revealed by the National Family and Health Survey of 1992/3 has significantly improved overall but large differences still exist between states. The paper gives an update of India's successes and failures in childhood immunization along five dimensions: heterogeneity between states, rural-urban differentials, gender differentials, and wealth induced inequalities. Recently developed methodology is used to calculate an extended achievement index that captures immunization performance along dimensions of efficiency (change in overall immunization rates) and equity (wealth-based distribution of outcomes) using increasing degrees of inequality aversion. An analysis of the change in this index between 1993 and 1999 reveals a positive correlation between efficiency and equity improvements.*

JEL classification: I18, O12, O53

Key Words: Immunization, Inequality, Gender, India

Acknowledgements:
Support for this research was provided by the Global Alliance for Vaccines and Immunization (GAVI). The authors thank Anne Batson, Davidson Gwatkin, G. N. V. Ramana, Thomas Uthup and Kenneth Kuttner for their support, comments, and suggestions, and David Kwakye and Laura Wallerstein for research assistance. Preliminary results were presented at a Conference in Washington D.C., February 2003, on Reaching the Poor and we would like to thank the conference participants who provided comments and encouraged us to finalize and submit the paper for publication. All analyses, views and any remaining errors in this paper are the responsibility of the authors.

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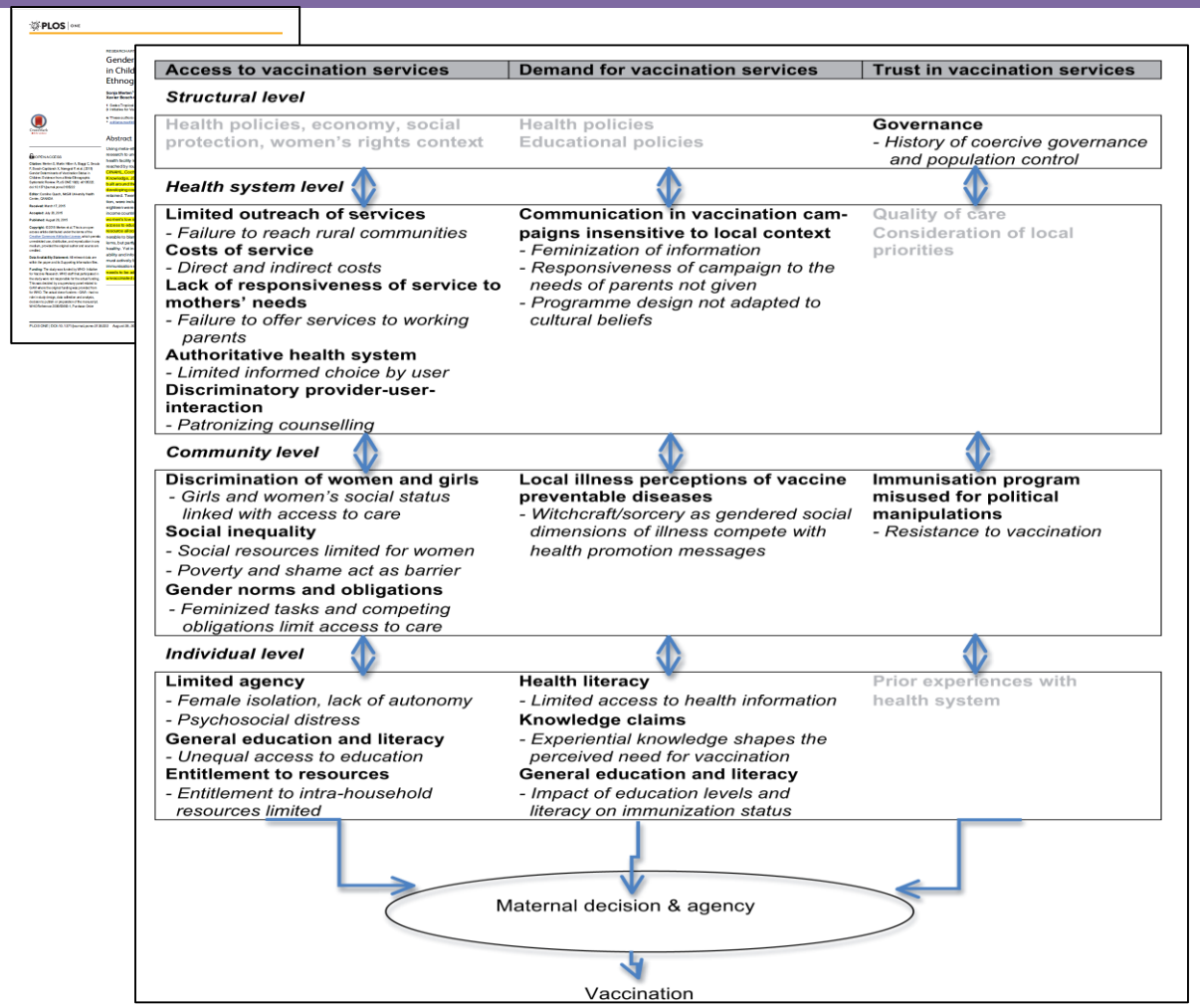
Grey Literature

- PhD candidates evaluating data for dissertation
- Systematic review to evaluate landscape and inform thinking

Thematic findings from the literature

- Rural vs. urban
- Autonomy/power
- Prenatal/antenatal care
- Training (of health workers)
- Men/fathers
- Structural challenges
- Occupation/religion
- Birth order

Literature highlight: Systematic Review by Merten, et al. (2015)



- Review of qualitative research to evaluate reasons that routine vaccination programs do not reach children in LMICs
- Findings:
  - Low social status of women manifests at every level as a barrier to accessing vaccinations
  - Access to education, income, and autonomous decision-making
    - Time and financial resource allocation
    - Blame and shame for child illness increased access problems and motivation
- Conclusions:
  - Increasing availability and knowledge is not enough, must include mitigation measures to enable access to vaccinations
  - Gender inequality needs to be addressed at the structural, community, and household levels

Literature highlight: Systematic Review by Favin et al. (2012)

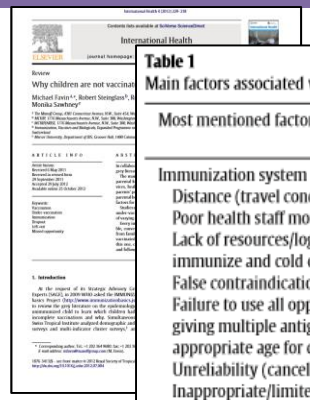


Table 1
Main factors associated with under-vaccination of children

Most mentioned factors	No. of mentions as a key factor
Immunization system	
Distance (travel conditions/access)	49
Poor health staff motivation and attitude (performance/competence, knowledge, ability to communicate with mothers)	49
Lack of resources/logistics (e.g., insufficient funding and stock outs which affect reliability, missed opportunities to immunize and cold chain)	48
False contraindications (particularly children sick, too old, under-weight) as factor for health workers and/or parents	47
Failure to use all opportunities (e.g., not screening; refusal to vaccinate eligible child due to false contraindications, fear of giving multiple antigens together, mother from another catchment area, mother forgot card and confusion about appropriate age for child to be immunized)	37
Unreliability (cancellation of sessions because provider absent, lack of supplies or fuel; other work priorities)	34
Inappropriate/limited service hours (limited days/hours; sessions begin late/end early)	30
Waiting time	29
Informal, illegal charges, indirect costs such as transportation	21
Lack of promotion/follow-up of routine immunization/health communication	13
Official fees and charges	10
Communication and Information	
Lack of promotion/follow-up of routine immunization/health communication	13
Family characteristics	
Low income/socioeconomic status	18
Recent/seasonal migrants	16
Low educational level (maternal and paternal)	15
Parental attitudes/knowledge	
Lack of parental knowledge on who, when, where	58
Fear of side effects	47
Conflicting priorities	43
Religious/cultural/social beliefs/norms and rumors	41
Low perceived importance of vaccination for child's health; attitude that it is better to treat illness (than prevent)	30
Lack of perceived efficacy of vaccine	27
Lack of interest/motivation	19
Lost/unavailable health cards	18
Low demand/acceptability of vaccination	15
Limited autonomy of women/father or mother-in-law pressuring against/husband refusal	15
Perceived lack of safety of vaccine/fear of multiple doses/of vaccination procedures/of dirty needles	13
Feeling of alienation because not in majority cultural/social group or otherwise unaccepted, embarrassed)	13
Perception that child is too sick, too weak/fatalism	13
Unpleasant experiences at health services (e.g., turned away, post-vaccination abscesses, verbally abused or publicly humiliated)	11
Mistrust of health staff	11

- IMMUNIZATIONbasics collaboration with WHO
  - 126 grey literature documents
  - Evaluated reasons why eligible children had incomplete or no vaccinations
- Sex differences are not widespread
  - India and South Asia – girls sometimes not vaccinated or vaccinated later
  - Gender issues are widespread, but not a major predictor factor in under-vaccination
- Gender issues
  - Husbands prohibit wives from visiting clinics
  - Women are not comfortable themselves being attended by unknown men at clinics
  - Husband refusal when child previously had side effects

Literature highlight: DHS analysis in India Gaudin & Yazbeck (2004)

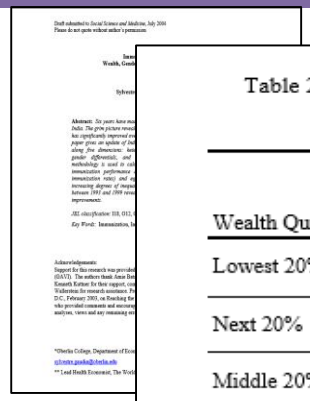
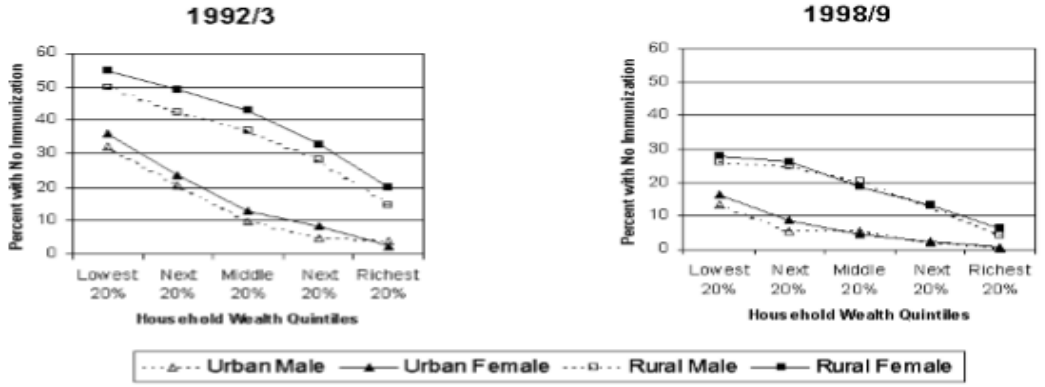


Table 2: Gender Differentials in Full Immunization: Urban and Rural India 1998/99

Wealth Quintile	Gender Gap % Boys Immunized-% Girls immunized [a/] Rural Areas	Urban Areas
Lowest 20%	-1.59 (-2.52)	5.22 (-2.52)
Next 20%	4.83 (+2.53)	2.81 (+0.44)
Middle 20%	1.91 (-0.33)	6.44 (+1.17)
Next 20%	0.99 (-0.50)	-3.03 (-6.57)
Richest 20%	2.84 (-3.33)	1.94 (-0.65)

[a/] Changes from 1992/3 are given in parenthesis

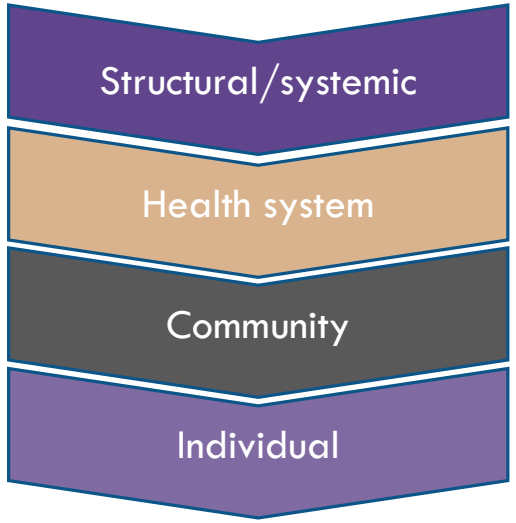


- Examined health statistics between 1992/93 and 1999 to evaluate progress and identify trends
- Improvements to rates of "total system failure" but challenges remain in full immunization
  - Wealth inequality was greater in rural areas
  - Greater gender discrimination in lower income groups
  - Problems in discrimination are likely at the household level where boys are favored when return visits are required
- There was significant variance between states in performance over time

Literature highlight: Engaging Men and Boys for RMNCH (2013)

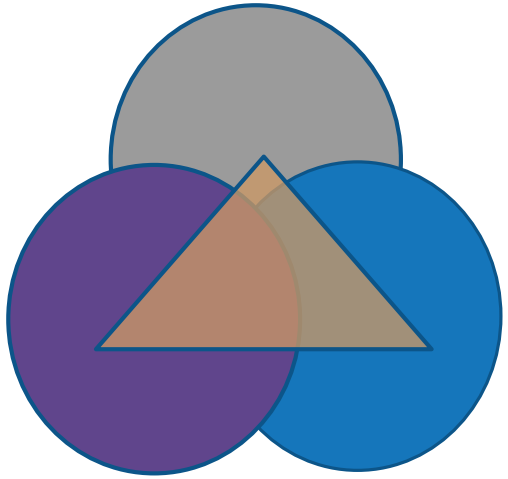
- "Men as *clients*, men as *partners*, men as *agents* of change"
- Engaging men in dialogue around vaccination with the goal of making them advocates for vaccination could improve vaccination rates and address systemic issues of gender equity and responsibility for child health
  - Base study (Varkey, 2004) showed increased communication on the topic but not differences in already high vaccination rates between the two groups
  - Husbands rarely brought in their infants and children for vaccination by themselves. There was no statistic difference on this fact.

Methodology



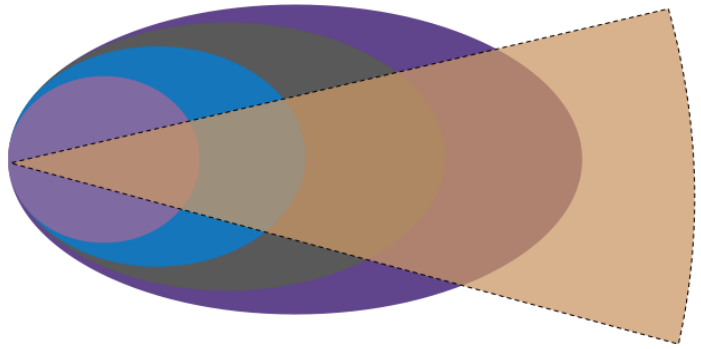
I. Nested Framework

- Comprehensive
- Integrated
- Broad



II. Integrated Framework

- Actionable
- Health systems-specific
- Targeted

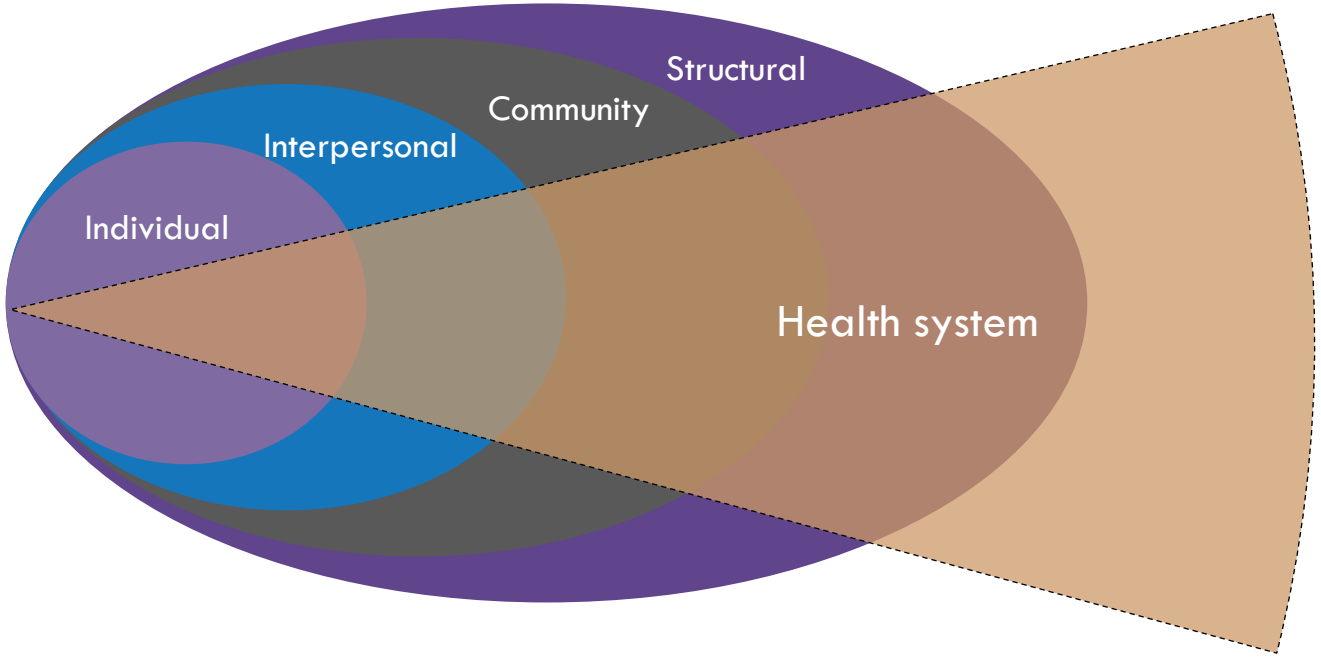


III. Social-Ecological Framework

- Nested
- Actionable
- Targeted

Framework

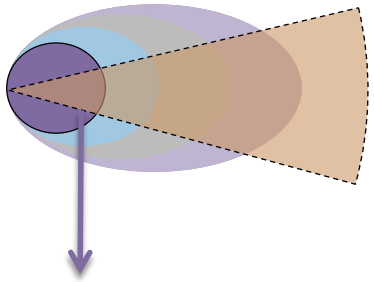
Social-Ecological Model



- Developed from themes and frameworks emerging from literature
- Supports comprehensiveness and facilitates a breadth of future work
- Enables a "nested" analysis of themes that are actionable within VxDel
- Emphasis on the intersection of health systems within the model

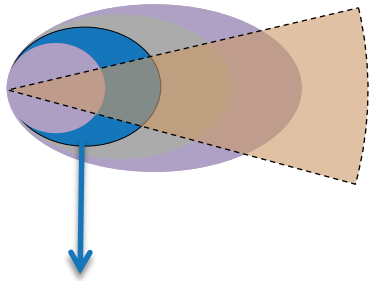
HYPOTHESES

Hypotheses: Individual



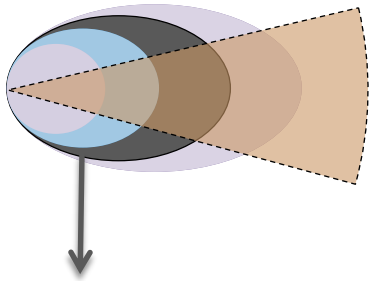
H1	Intersections of varying levels and dimensions of inequity/deprivation with gender make health services less accessible and create disparities in vaccination outcomes.
H2	Demographic segments of the population of women and girls, such as those in lower wealth quintiles or specific religions, are more at risk for both low vaccination and health care utilization rates depending on the region in which they reside.
H3	Additional support and encouragement to very young mothers and older mothers (e.g. below 20 years and above 30 years) and families with large numbers of children could increase vaccination knowledge and outcomes.

Hypotheses: Interpersonal



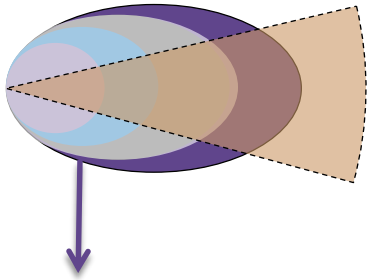
H1	In communities where there is a larger degree of inequality in households in decision-making and resource allocation, educating men about the importance of family health care enhances communication between partners and can promote health of pregnant mothers and child vaccination outcomes.
H2	Men can provide an accommodating environment for women and children to receive services, for example, in areas where women's movement is restricted.
H3	Gender of health workers can be a valuable driver for health-seeking behaviors and child health.

Hypotheses: Community



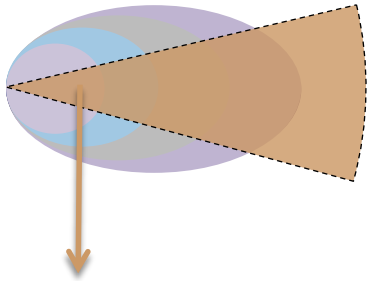
H1	Campaigns that dispel concerns around safety and efficacy of specific vaccinations and that engage men can impact child health and vaccination outcomes.
H2	Community norms on gender roles in a family's health can have an impact on health knowledge and vaccination coverage.
H3	Relationship-building between people and community health workers can lead to increased agency among women and improved vaccination outcomes.

Hypotheses: Structural



H1	Where women are primarily responsible for child well being and vaccine delivery relies on the health system, barriers to healthcare access associated with compounding factors of restrictive gender norms and low socioeconomic status must be addressed in order to increase coverage.
H2	Access to media can enable increased immunization knowledge, attitudes and practices among parents.
H3	Addressing structural drivers (e.g. transportation, finance, education, employment/livelihoods, legal norms, GBV*) for gender inequity may improve vaccination outcomes.

Hypotheses: Health system



H1	Training and workshops on communication, gender sensitization, and sexual harassment for all health care system workers (including providers, staff, administrators, and leadership) could improve vaccination outcomes and quality of care.
H2	Policies that promote gender equity in health system hiring, promotion, and organizational leadership could indirectly have a positive impact on immunization service delivery.
H3	Expansion of human resources in primary health care centers and through [female] health extension workers will result in greater immunization coverage with female caretakers and could result in greater immunization coverage for male caretakers.

Opportunities for collaboration

- Family planning
  - Birth order
  - Behavior change
- EDD vaccine efficacy
  - Breastfeeding and health care
- Financial services for the poor
  - Mobile technology and media
- Integrated delivery
  - Primary care

DISCUSSION

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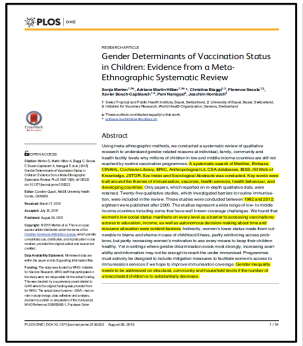
Appendix



Gender Determinants of Vaccination Status in Children: Evidence from a Meta-Ethnographic Systematic Review

Abstract

Access to vaccination services	Demand for vaccination services	Trust in vaccination services
Structural level		
Health policies, economy, social protection, women's rights context	Health policies Educational policies	**Governance** - *History of coercive governance and population control*
Health system level		
Limited outreach of services - *Failure to reach rural communities* **Costs of service** - *Direct and indirect costs* **Lack of responsiveness of service to mothers' needs** - *Failure to offer services to working parents* **Authoritative health system** - *Limited informed choice by user* **Discriminatory provider-user-interaction** - *Patronizing counselling*	**Communication in vaccination campaigns insensitive to local context** - *Feminization of information* - *Responsiveness of campaign to the needs of parents not given* - *Programme design not adapted to cultural beliefs*	Quality of care Consideration of local priorities
Community level		
Discrimination of women and girls - *Girls and women's social status linked with access to care* **Social inequality** - *Social resources limited for women* - *Poverty and shame act as barrier* **Gender norms and obligations** - *Feminized tasks and competing obligations limit access to care*	**Local illness perceptions of vaccine preventable diseases** - *Witchcraft/sorcery as gendered social dimensions of illness compete with health promotion messages*	**Immunisation program misused for political manipulations** - *Resistance to vaccination*
Individual level		
Limited agency - *Female isolation, lack of autonomy* - *Psychosocial distress* **General education and literacy** - *Unequal access to education* **Entitlement to resources** - *Entitlement to intra-household resources limited*	**Health literacy** - *Limited access to health information* **Knowledge claims** - *Experiential knowledge shapes the perceived need for vaccination* **General education and literacy** - *Impact of education levels and literacy on immunization status*	Prior experiences with health system

Maternal decision & agency

Vaccination

Table: Systematic Review by Merten, et al. (2015)

International Health

Why children are not vaccinated: a review of the grey literature

Table 1
Main factors associated with under-vaccination of children

Most mentioned factors	No. of mentions as a key factor
Immunization system	
Distance (travel conditions/access)	49
Poor health staff motivation and attitude (performance/competence, knowledge, ability to communicate with mothers)	49
Lack of resources/logistics (e.g., insufficient funding and stock outs which affect reliability, missed opportunities to immunize and cold chain)	48
False contraindications (particularly children sick, too old, under-weight) as factor for health workers and/or parents	47
Failure to use all opportunities (e.g., not screening; refusal to vaccinate eligible child due to false contraindications, fear of giving multiple antigens together, mother from another catchment area, mother forgot card and confusion about appropriate age for child to be immunized)	37
Unreliability (cancellation of sessions because provider absent, lack of supplies or fuel; other work priorities)	34
Inappropriate/limited service hours (limited days/hours; sessions begin late/end early)	30
Waiting time	29
Informal, illegal charges, indirect costs such as transportation	21
Lack of promotion/follow-up of routine immunization/health communication	13
Official fees and charges	10
Communication and Information	
Lack of promotion/follow-up of routine immunization/health communication	13
Family characteristics	
Low income/socioeconomic status	18
Recent/seasonal migrants	16
Low educational level (maternal and paternal)	15
Parental attitudes/knowledge	
Lack of parental knowledge on who, when, where	58
Fear of side effects	47
Conflicting priorities	43
Religious/cultural/social beliefs/norms and rumors	41
Low perceived importance of vaccination for child's health; attitude that it is better to treat illness (than prevent)	30
Lack of perceived efficacy of vaccine	27
Lack of interest/motivation	19
Lost/unavailable health cards	18
Low demand/acceptability of vaccination	15
Limited autonomy of women/father or mother-in-law pressuring against/husband refusal	15
Perceived lack of safety of vaccine/fear of multiple doses/of vaccination procedures/of dirty needles	13
Feeling of alienation because not in majority cultural/social group or otherwise unaccepted, embarrassed)	13
Perception that child is too sick, too weak/fatalism	13
Unpleasant experiences at health services (e.g., turned away, post-vaccination abscesses, verbally abused or publicly humiliated)	11
Mistrust of health staff	11

Table: Systematic Review by Favin et al. (2012)

Table 2: Gender Differentials in Full Immunization: Urban and Rural India 1998/99

Wealth Quintile	Gender Gap % Boys Immunized-% Girls immunized [a/] Rural Areas	Urban Areas
Lowest 20%	-1.59 (-2.52)	5.22 (-2.52)
Next 20%	4.83 (+2.53)	2.81 (+0.44)
Middle 20%	1.91 (-0.33)	6.44 (+1.17)
Next 20%	0.99 (-0.50)	-3.03 (-6.57)
Richest 20%	2.84 (-3.33)	1.94 (-0.65)

[a/] Changes from 1992/3 are given in parenthesis

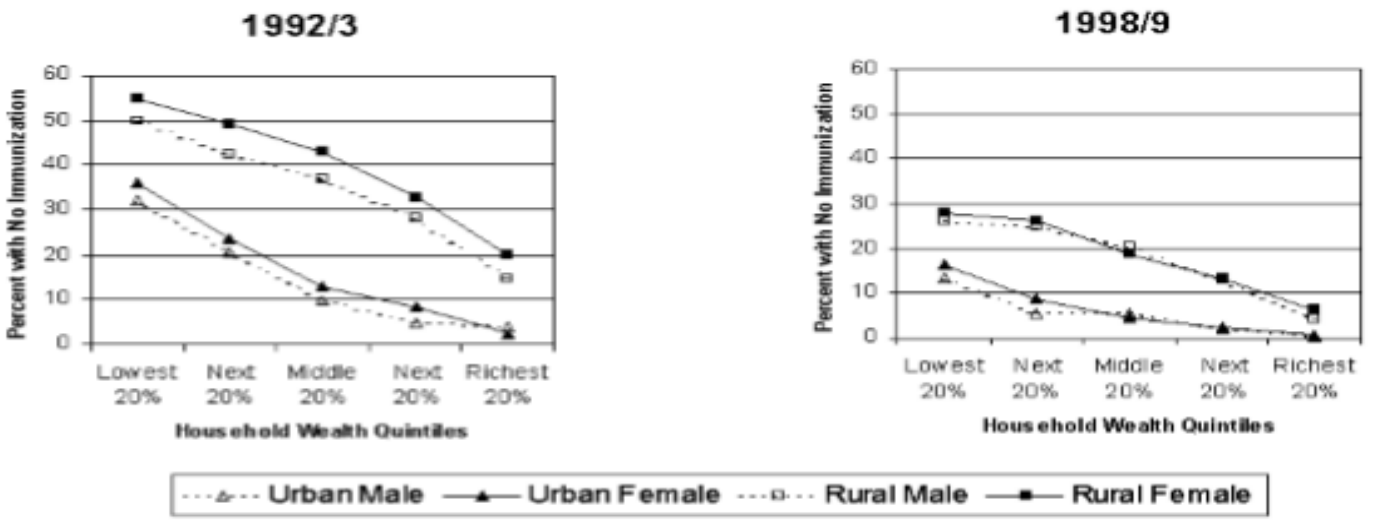


Table: DHS analysis in India Gaudin & Yazbeck (2004)