

THREE EMPIRICAL ESSAYS IN GENDER AND HEALTH ECONOMICS

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Three Empirical Essays in Gender and Health Economics

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THESIS CERTIFICATE

This is to certify that the thesis titled '***Three Empirical Essays in Gender and Health Economics***' submitted by Komal Sareen (2019HUZ8705) to the Indian Institute of Technology Delhi (IIT-D) for the award of the degree of Doctor of Philosophy, is a bonafide record of the research work done by her under our supervision. The contents of this thesis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

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Abstract

According to the 2020 United Nations State of World Population Report, India accounts for 32% of the global 'missing women' in the last half-century. While initial studies focused on missing women at birth for reasons such as sex-selective abortions and female infanticide, subsequent research revealed that approximately two-thirds of these women were fifteen years and older ([Anderson and Ray, 2010](#)). Subsequent literature emphasized various reasons for missing women at later ages, including gender inequalities in healthcare access ([Ray et al., 2014](#)), healthcare expenditure ([Saikia et al., 2016](#); [Asfaw et al., 2010](#)), etc. This thesis aims to present a comprehensive overview of three diverse yet interconnected challenges concerning women's health in India, spanning from childhood through adulthood.

In 2021, two years post-pandemic, a joint WHO and UNICEF report highlighted that the world witnessed the lowest vaccination coverage documented since 2008. In the first essay, I utilize a household survey based on retrospective births to investigate potential factors contributing to the decline in routine childhood immunization amidst the COVID-19 pandemic in India. These channels encompass the severity of the pandemic as indicated by the number of cases and fatalities, lockdown-induced restrictions on mobility, and the introduction of COVID-19 vaccines like Covaxin and Covishield. While there were no gender disparities in pre-pandemic immunization rates, girls faced increased barriers in accessing post-birth vaccines solely due to mobility restrictions. Finally, the chapter concludes by emphasizing the need for government catch-up programs and timely booster doses for missed vaccinations to prevent potential outbreaks of vaccine-preventable diseases.

The second essay examines the effect of a complete state-wide ban on alcohol on the incidence of intimate partner violence (IPV) against women in the state of Bihar. Using three waves of the NFHS data and a difference-in-difference strategy, I estimate a decline in both husbands' alcohol consumption and IPV incidence post-ban in 2016. To address concerns about contemporaneous pro-female policies confounding the estimates, I use geospatial data on pre-ban levels of alcohol consumption across sub-district administrative units within Bihar to find a decline in IPV in high-alcohol use blocks compared to low-alcohol use blocks. My findings underscore the need to assess the advantages of the ban against its disadvantages, such as the decrease in liquor tax revenue.

The third essay of this thesis explores the potential implications of a publicly financed health insurance program on unnecessary medical procedures. Using nationally representative data from India, I find a significant rise in hysterectomies following the implementation of a state-sponsored cashless health insurance program in Andhra Pradesh. Furthermore, most of these procedures were performed in private hospitals, raising concerns about perverse financial incentives for over-treatment. This study motivates the need for clinical auditing and monitoring such cashless programs. To summarise, the trio of essays in my thesis highlights the significance of policies addressing gender-specific costs that contribute to either excessive or insufficient medical interventions for women across their lifespan.

सारांश

2020 की संयुक्त राष्ट्र की वर्ल्ड पॉपुलेशन रिपोर्ट के अनुसार, पिछले आधे दशक में वैश्विक 'लापता महिलाएँ' की संख्या में भारत की हिस्सेदारी 32% है। प्रारंभिक अध्ययनों में लापता महिलाओं के कारणों को जन्म के समय की घटनाओं जैसे लिंग-आधारित, गर्भपात और कन्या भ्रूण हत्या तक सीमित रखा गया था। हालांकि, बाद के शोध से पता चला कि इनमें से लगभग दो-तिहाई महिलाएँ 15 वर्ष या उससे अधिक उम्र की थीं। यह शोध प्रबंध भारत में बचपन से लेकर वयस्कता तक महिलाओं के स्वास्थ्य से संबंधित तीन विविध लेकिन आपस में जुड़े मुद्दों का समग्र अवलोकन प्रस्तुत करने का प्रयास करता है।

2021 में, COVID महामारी के दो साल बाद, WHO और UNICEF की एक संयुक्त रिपोर्ट में बताया गया कि दुनिया में टीकाकरण कवरेज 2008 के बाद के सबसे निचले स्तर पर पहुँच गया। पहले अध्याय में, मैं एक घरेलू सर्वेक्षण के माध्यम से यह जांच करती हूँ कि भारत में COVID-19 महामारी के दौरान नियमित बचपन के टीकाकरण में गिरावट के संभावित कारण क्या थे। ये कारण महामारी की गंभीरता (मामलों और मौतों की संख्या), आवाजाही पर लगे प्रतिबंध, और Covaxin और Covishield जैसे COVID-19 टीकों की शुरुआत शामिल हैं। महामारी से पहले टीकाकरण दरों में कोई लिंग आधारित अंतर नहीं था, लेकिन लड़कियों को आवाजाही की पाबंदियों के कारण जन्म के बाद के टीकों तक पहुँच में अधिक बाधाओं का सामना करना पड़ा। अध्याय इस निष्कर्ष पर पहुँचता है कि टीके की खुराकों के लिए सरकारी 'कैच-अप' कार्यक्रमों और समय पर बूस्टर डोज की आवश्यकता है ताकि टीकों से रोकी जा सकने वाली बीमारियों के संभावित प्रकोपों को रोका जा सके।

दूसरा अध्याय बिहार राज्य में शराब पर पूर्ण प्रतिबंध का महिलाओं के खिलाफ अंतरंग साथी हिंसा की घटनाओं पर प्रभाव की जांच करता है। NFHS डेटा की तीन लहरों और डिफरेंस-इन-डिफरेंस रणनीति का उपयोग करते हुए, मैं 2016 में प्रतिबंध के बाद पतियों के शराब के सेवन और IPV की घटनाओं में कमी का अनुमान लगाती हूँ। क्योंकि महिला सशक्तिकरण की अन्य नीतियाँ अनुमानित प्रभाव को प्रभावित कर सकती हैं, मैंने बिहार के प्रशासनिक इकाइयों में शराब के प्री-बैन स्तरों पर आधारित भौगोलिक डेटा का उपयोग किया। उच्च-शराब उपयोग वाले क्षेत्रों की तुलना में कम-शराब उपयोग वाले क्षेत्रों में IPV की घटनाओं में कमी देखी गई। मेरे निष्कर्ष यह संकेत देते हैं कि प्रतिबंध के लाभों का मूल्यांकन इसके नुकसान, जैसे कि शराब कर राजस्व में कमी, के खिलाफ करना आवश्यक है।

शोध प्रबंध का तीसरा अध्याय एक सार्वजनिक वित्तपोषित स्वास्थ्य बीमा कार्यक्रम के अनावश्यक चिकित्सा प्रक्रियाओं पर संभावित प्रभावों की पड़ताल करता है। भारत के राष्ट्रीय प्रतिनिधि डेटा का उपयोग करते हुए, मैंने पाया कि आंध्र प्रदेश में एक राज्य प्रायोजित कैशलेस स्वास्थ्य बीमा कार्यक्रम लागू होने के बाद गर्भाशय निकालने (हिस्टरेक्टॉमी) की घटनाओं में उल्लेखनीय वृद्धि हुई। इसके अलावा, अधिकांश प्रक्रियाएँ निजी अस्पतालों में की गईं, जिससे अधिक उपचार के लिए वित्तीय प्रोत्साहनों की चिंता बढ़ गई। यह अध्ययन ऐसे कैशलेस कार्यक्रमों के नैदानिक ऑडिट और निगरानी की आवश्यकता पर बल देता है।

अंततः, इस शोध प्रबंध के तीनों अध्याय ऐसे नीतिगत हस्तक्षेपों की आवश्यकता को रेखांकित करते हैं जो महिलाओं के जीवन भर के लिए अत्यधिक या अपर्याप्त चिकित्सा देखभाल से संबंधित लिंग-आधारित लागतों को संबोधित करते हैं।

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