

***Precarious Work as a Determinant of Health  
in the Indian Informal Sector:  
Unravelling Health and Work Linkages***

**Pallavi Joshi Lahari**  
Jawaharlal Nehru University,  
New Delhi, India

**Workshop on Occupational Health and Safety in Age of Digitalization  
Session IV: Domestic and Informal Work**



# World of Work and Occupational Health: Current Scenario

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- *New Forces of Change in the Work Realm*



Unions Power

Social protection

Regulatory accountability



Work fragmentation

Socio-economic disparity

Workforce diversification

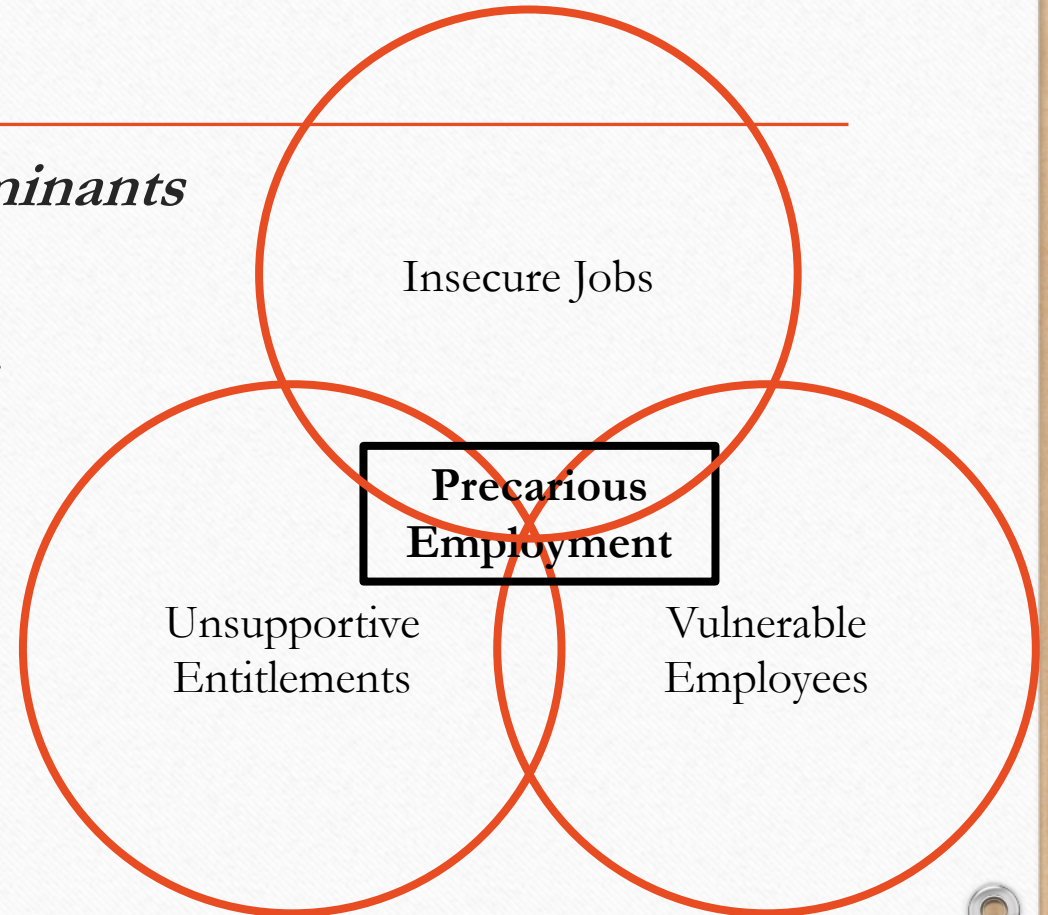
- Traditional OSH → *New Approaches* in OSH



# Precarious Work Construct in Occupational Health

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- OSH need to engage into *social determinants perspective*
- *Account for* multidimensionality; quality, power relations, insecurity, depreviation and more
- *Discrete to sociological view* of work
- Responsive to *mental/psychological* health
- Dearth of research in **Developing nations**





# Informal Sector of Developing World: Challenges to OHS

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- Sheer Size and Unregulated Nature
- Informal work ~Poverty~ Illiteracy: *Co-location*
- Large share of *home-based* work
- Social institutions of *caste and gender*
- Risk of both *traditional and emerging hazards*
- Deficit in *OHS Manpower* (58% FMO's, 59% SO's)
- Poor surveillance and datasets





## The Case of Bidi Sector in India

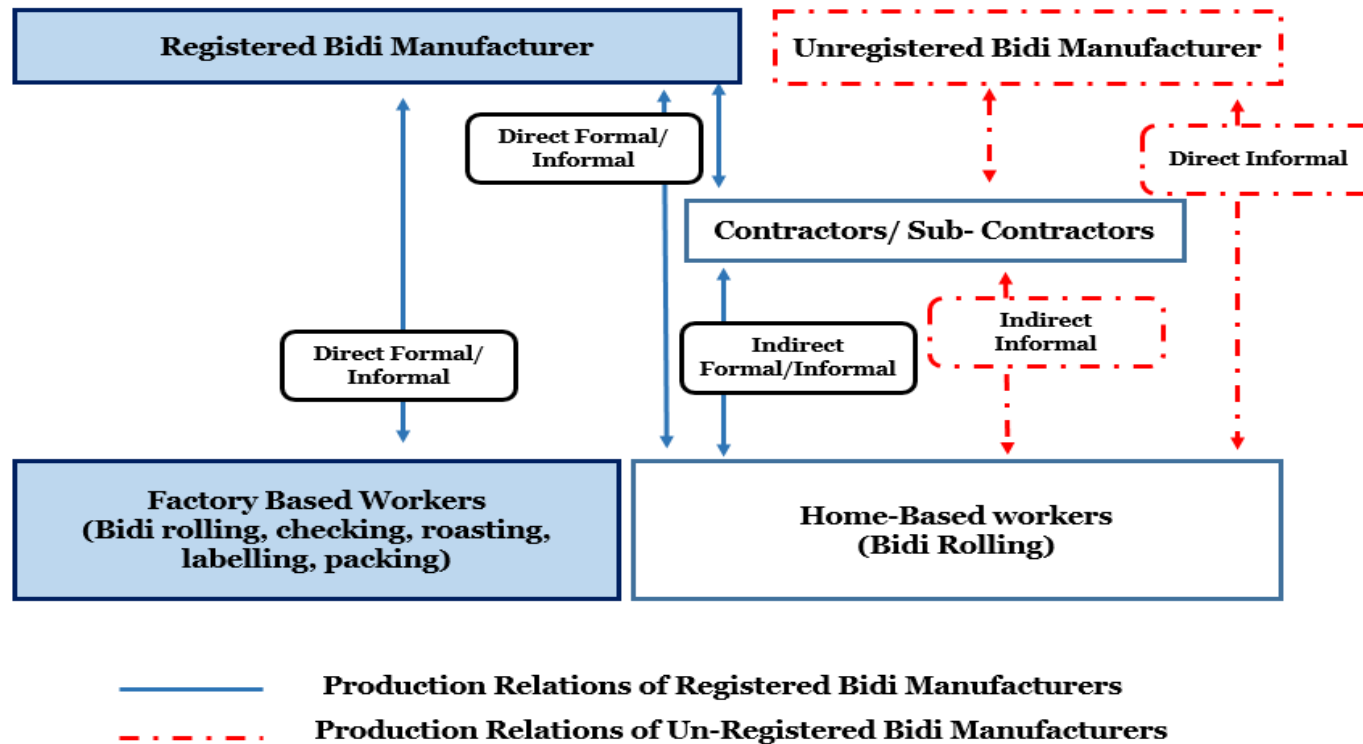
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- Indigenous, crude handrolled tobacco
- Highest consumed smoke form, poor man's smoke
- Unorganised, homebased, sub-contracted
- Concentration of Women, Children, Marginalised
- Health Risks long term tobacco exposure
- Weak Social Protection, High Toil~Low reward





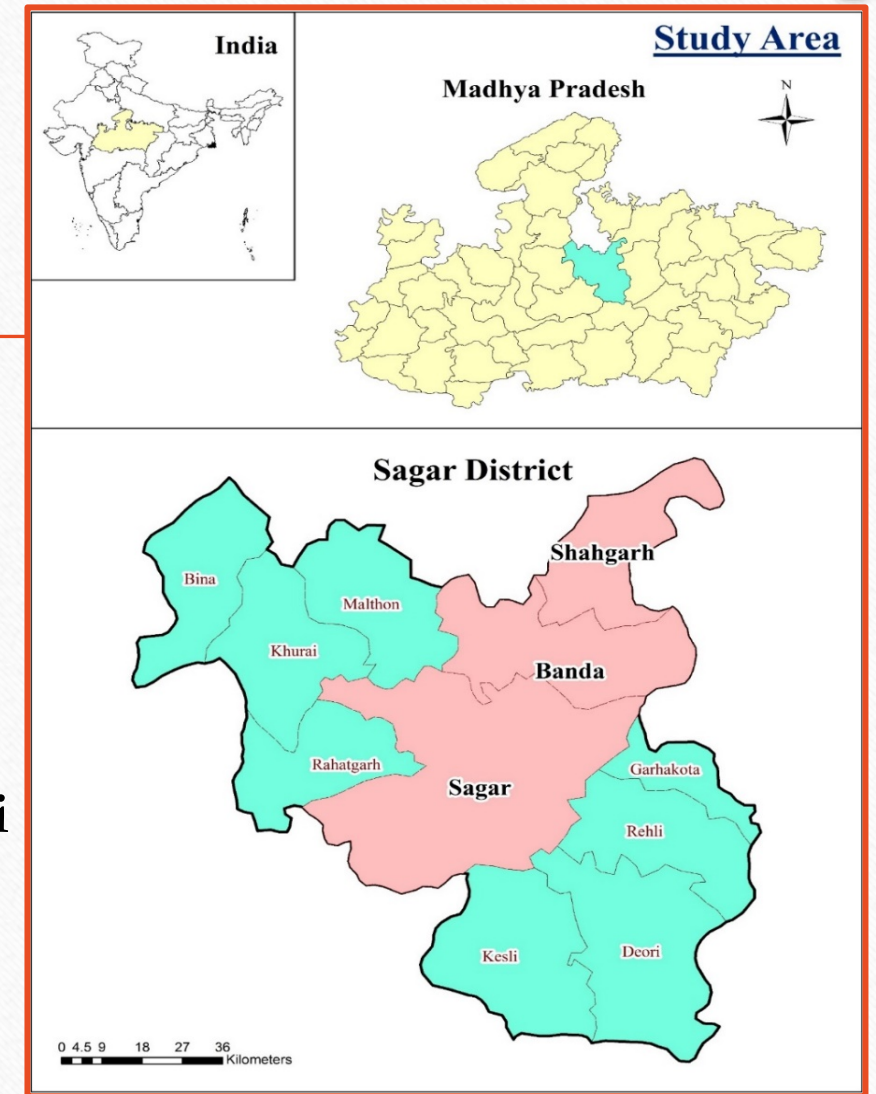
# Bidi Production Chain





## Study Region: Bundelkhand, Madhya Pradesh

- **Largest Bidi producing region** , traditional occupation
- Production **-home-based**, through middlemen
- Industrially **backward region; conservative and feudal**
- **Mixed Methods** Primary Survey of 405 women; 261 **Bidi rollers** and 144 non Bidi rollers





# Research Gap in OHS Studies on Bidi Sector

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**Known:** Bidi Rolling as Health Hazard!

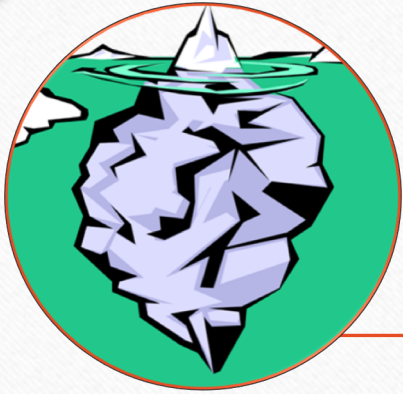
- Respiratory
- Dermatological
- Musculoskeletal
- Ocular
- Neural
- Gynaecological



**Missing:**

Holistic and Multidimensional View of Health and Work Sphere





## Disease Status to Health Status

Disease Prevalence



Other Health Characteristics

- Musculoskeletal (RR=1.465 \*\*)
- Eye Related (RR= 1.123\*\*)
- Gynaecological (RR=1.049\*\*)
- Gastric ailments (RR= 1.078\*\*)

- Chronic (*RR=1.539\*\**)
- Frequent (*RR= 2.235\*\**)
- Intense (*RR=1.336\*\**)
- Poor self perception (*RR= 1.843\*\**)

- Dissatisfaction (88%)
- Presenteeism (48%)
- Lack of Work Dignity (70%)
- Pessimism (75%)



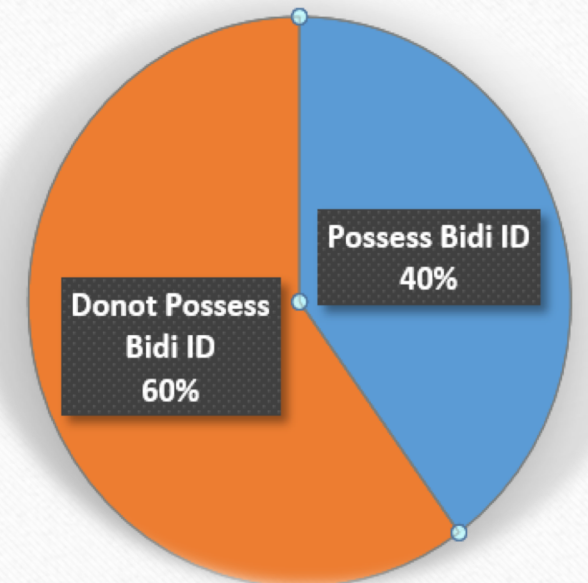




## Determinants of Health Access

- Invisible Labour (65%)
- No Collective (92%)
- Illiteracy (57%)
- Unawareness about labour rights (93%)
- Weak Social Capital
- Role of Middlemen (85% cases no help)
- Gender Position (40% cards in name of husbands)
- Decision Making Power

फार्म - ई  
(देखिये नियम 41)  
संस्था/पैक्ट/डिक्टर का नाम 1415113  
बीडी अधिकारी का नाम श्री बाबा प्रेम  
पिता/पति का नाम श्री राम  
पूरा पता गुरुदास राय  
आयु (अथवा तारीख) 45 वर्ष  
बीडी स्थापना का नाम धरमपुरा  
डिजिटलरी का नाम जहाँ से चिकित्सा प्राप्त होती है  
नाम श्री राम  
अथवा तारीख 12/1/18  
प्रमाणित किया जाता है कि परीक्षा का प्रमाण के विषय में दिये गये विवरण सचता के आधार पर सही है।  
बीडी निर्माता/फैक्टरी मालिक अथवा चिकित्सा अधिकारी के हस्ताक्षर एवं मुहर  
बीडी अधिकारी के हस्ताक्षर





# Precariousness Characteristics in Bidi Rolling Work

## Pathways and Mechanisms

## Health and Access Components

**Demographic Bias**

Poor Women of marginalised castes

Physiological

**Physical Hazard**

Unregulated work and poor living conditions

Social

**Work Relations**

Lack of social protection, Ill defined working hours, Seasonality, Lack of job security, Middlemen, Lack of established work relations

Psychological

Psycho-social

**Powerlessness**

Cheap surplus labour, lack of alternate skills, disempowerment, incapacity to exercise rights, illiteracy, lack of bargaining power)

Economic/  
Monetary

**Health Status**

**Aspirational Deficit**

Lack of aspiration, Ambition, Promotion and self esteem

Self Enablers

**Healthcare Access**

**Weak Social Capital**

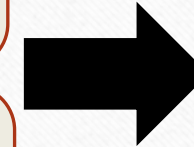
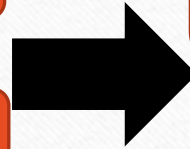
Networks, civil society, NGO's, media, rights, citizenship

State Enablers

Institutional Enablers

**Economic Peril**

Inadequate Wages, Poverty and Indebtedness







Capturing

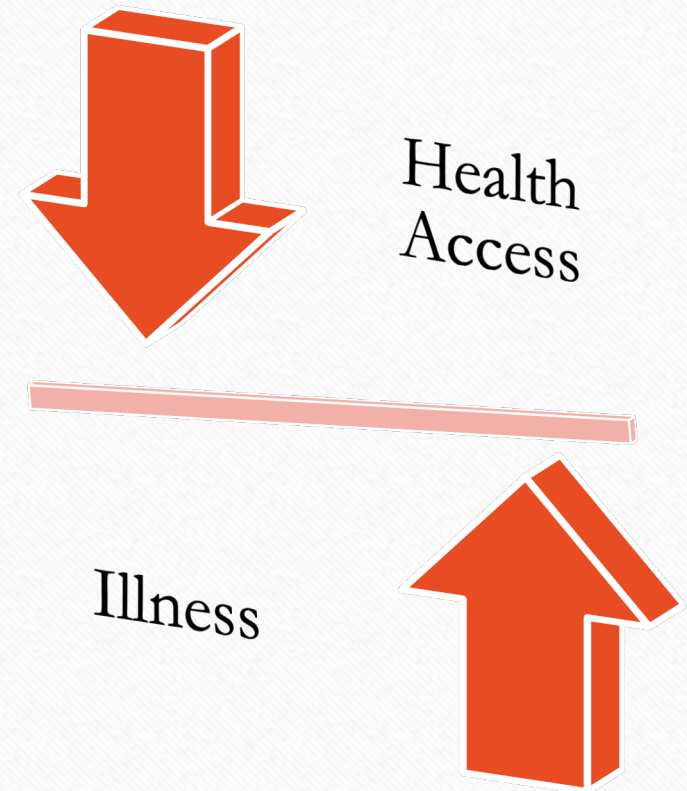
- \* **Precariousness**
- \* **Health**
- \* **Health Access**

into Indices



# Precarious Work, Health Status and Health Access Trends in Association

Dependent Variable	Independent Variable	Spearman Correlation Coefficient	Linear Regression Coefficient $\beta$
Illness Scores	Precariousness Illness Score	<b>0.273***</b>	<b>0.232***</b>
Health Accessibility Score	Precariousness Access Score	<b>- 0.326***</b>	<b>- 0.412***</b>





## Precariousness Determinants of Illness Score

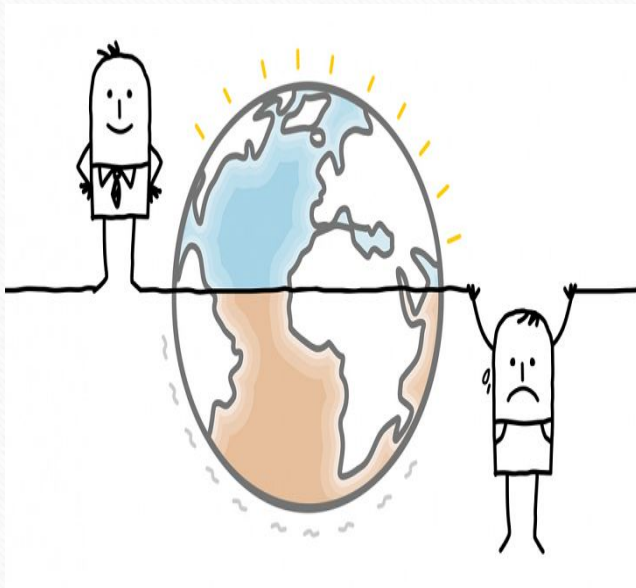
<u>Grouped on the basis of</u>	<u>F</u>	<u>Sig.</u>	<u>t value</u>	<u>df.</u>	<u>Sig. (2 tailed)</u>
Income through Bidi	.133	.716	.544	266	.587
Perception about respect	8.182	.004	-1.734	266	.084
Special information on hazard	1.306	.254	1.857	384	.064
Take adequate breaks	1.717	.191	3.000	266	.003
Aware about hazard	.211	.646	1.793	265	.074
Use protective gear or not	2.772	.097	-2.541	259	.012
Bidi activity alone or in a group	3.500	.062	2.086	265	.038
Separate room for Bidi Rolling	2.665	.104	-.034	266	.973
Number of Hours spent in rolling	1.855	.174	-1.976	265	.049
Engagement Years	2.050	.153	-3.579	266	.001



# Precariousness Determinants of Access Scores

<u>Grouped on the basis of</u>	<u>F</u>	<u>Sig.</u>	<u>t value</u>	<u>df.</u>	<u>Sig. (2 tailed)</u>
Source of Work	2.871	.091	.021	259	.983
Possession of Bidi ID	6.186	.014	1.440	259	.151
Alternate skills possessed	.041	.841	3.336	259	.001
Monthly Income	.071	.897	3.751	259	.000
Monthly wage through Bidi	.138	.711	3.483	259	.001
Wage change wanted	.679	.411	1.142	259	.254
Attend gram sabha	3.823	.052	2.046	259	.042
Media awareness	3.127	.078	1.668	259	.096
Awareness health hazard	1.669	.198	.203	259	.839
Awareness equal remuneration	.000	.996	-.080	259	.936
Welfare benefits wanted	.139	.710	-.422	259	.673
Awareness collective bargaining	12.790	.000	2.615	259	.254
Money related decision making	.535	.465	2.160	259	.010
Rate of rejection of Bidi	.003	.958	1.797	259	.074
Choice of continuing work	.679	.411	1.142	259	.254
Help in getting ID card	6.943	.009	2.194	259	.029
Work earnings better without Sattedar	4.994	.026	1.652	259	.100

# Key



**Learning:**  
Determinants of Health and Health Access  
are not linear

**Future:**  
Methods to uncover multidimensionality in  
health determinants and understand  
pathways they take to affect health.







Contact: [pallavi.j2207@gmail.com](mailto:pallavi.j2207@gmail.com)