Participatory Mapping Research in Urban Slums of Delhi

Presented by:

Dr. Garima Borwal

MBA Health Management

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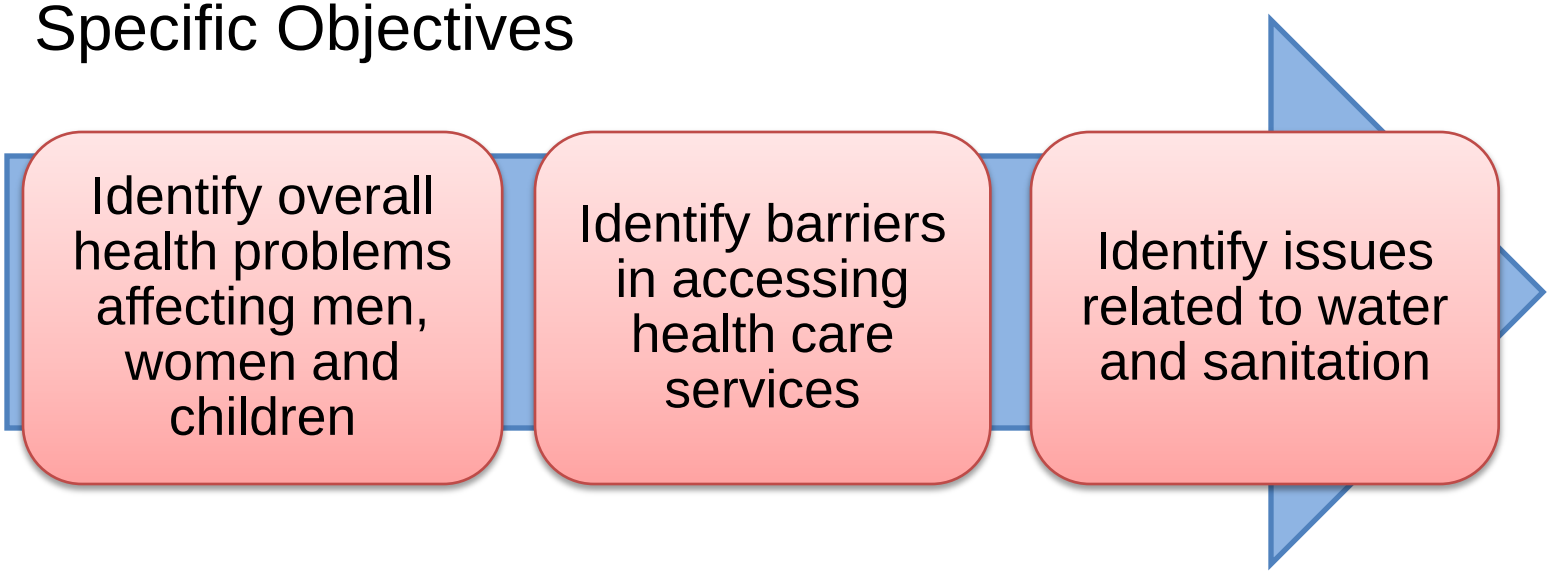
Introduction

- Participatory mapping is an interactive approach that draws on local people's knowledge, enabling participants to create visual and non-visual data to explore social problems, opportunities and solutions.
- Explicitly recognizes local people as capable research collaborators
- Allows getting an insight into a current situation, including the perception of the local stakeholders
- Map produced in such a way can serve as a basis for taking decisions how to change the local water, sanitation, nutrition and health situation.

Objectives

- To assess the current scenario of Health, Water and Sanitation in the slums of North and South Delhi by using PLA tools and techniques.
- Specific Objectives



Methodology

- Study Type: Qualitative
- Study Area: 30 slum clusters in North and South east area of New Delhi
- Study Population:

	Area	No of slums	Population(apprx)
North Delhi	Jahangirpuri	5	50,000
	Bawana	5	50,000
South-East	Okhla	10	1,00,000
	Govindpuri	10	1,00,000

- Data Collection Tools:

  Tool 1: Perception mapping/ Need assessment

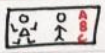
  Tool 2: Transect Walk

  Tool 3: Resource & Social Mapping
- Data Quality:
- Pretesting of tools- 2 days orientation
- Slum vikas Kendra in program offices of *Navjyoti Development society* ,**Indira Kaliyan Vihar,Okhla Phase-I**
- Day 1- Orientation on tools
- Day 2- Field visit

- Interaction started with community members and members of RWA to get a sense of various issues of health, nutrition, water and sanitation and how various issues are perceived and to identify the very vulnerable locations which needed special focus. This formed a basis of Perception mapping.
- Based on perception mapping, it was decided to go for Transect walk in selected areas of the slum, especially in locations that were considered highly vulnerable. The Transect walk was marked on a chart paper and one of the members recorded the discussions as the walk progressed. The pictures of some areas were also clicked.

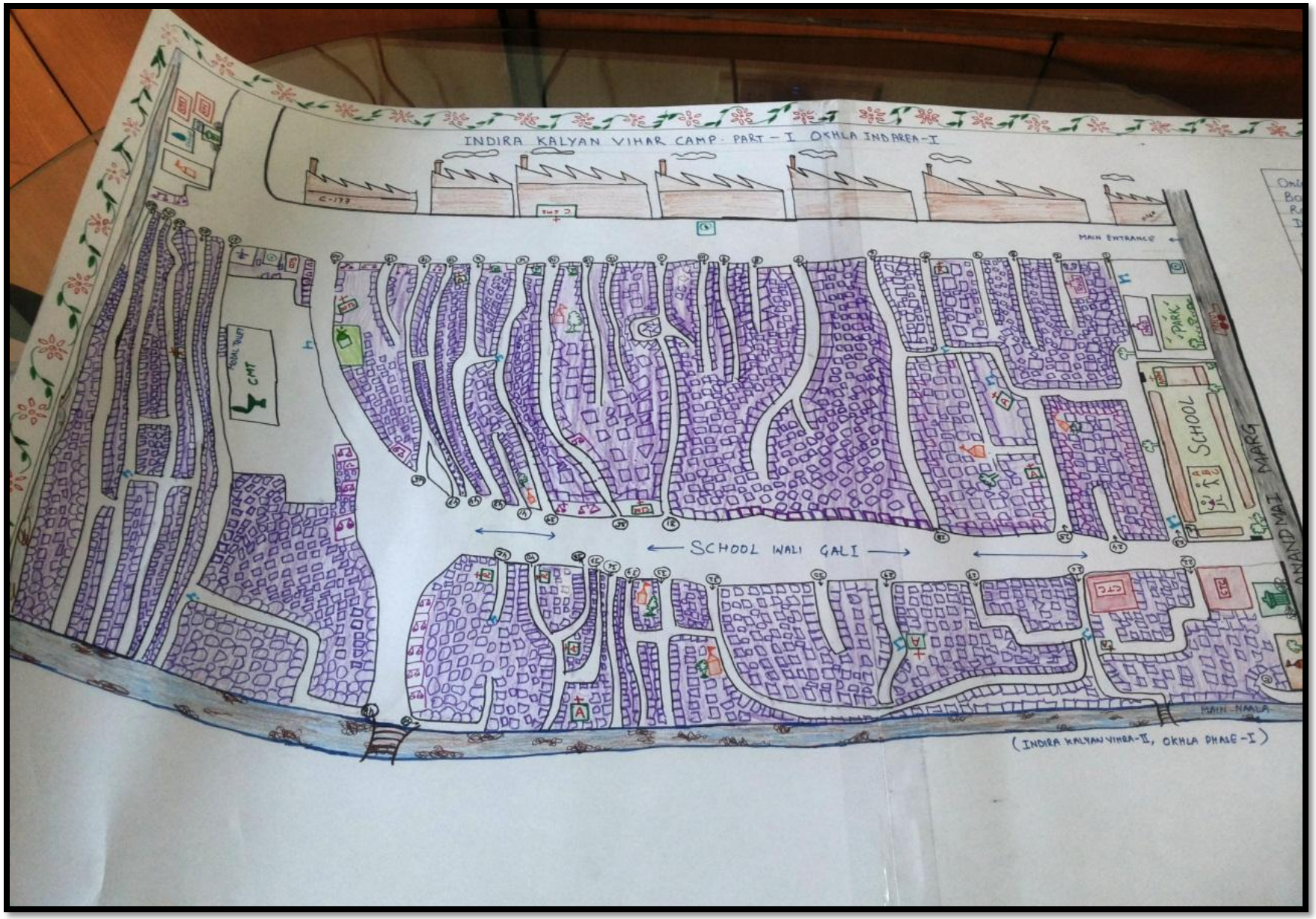
- After the completion of Transect Walk, the mapping process started.
- End of the whole day session the participants were able to produce their 1st base map of the Indira Kalyan Vihar
- The map gave a visual representation of the slum area showing the available resources and depicted the households, the health facilities, the ICDS centres, public utilities like water pumps, toilets etc.

SYMBOLS

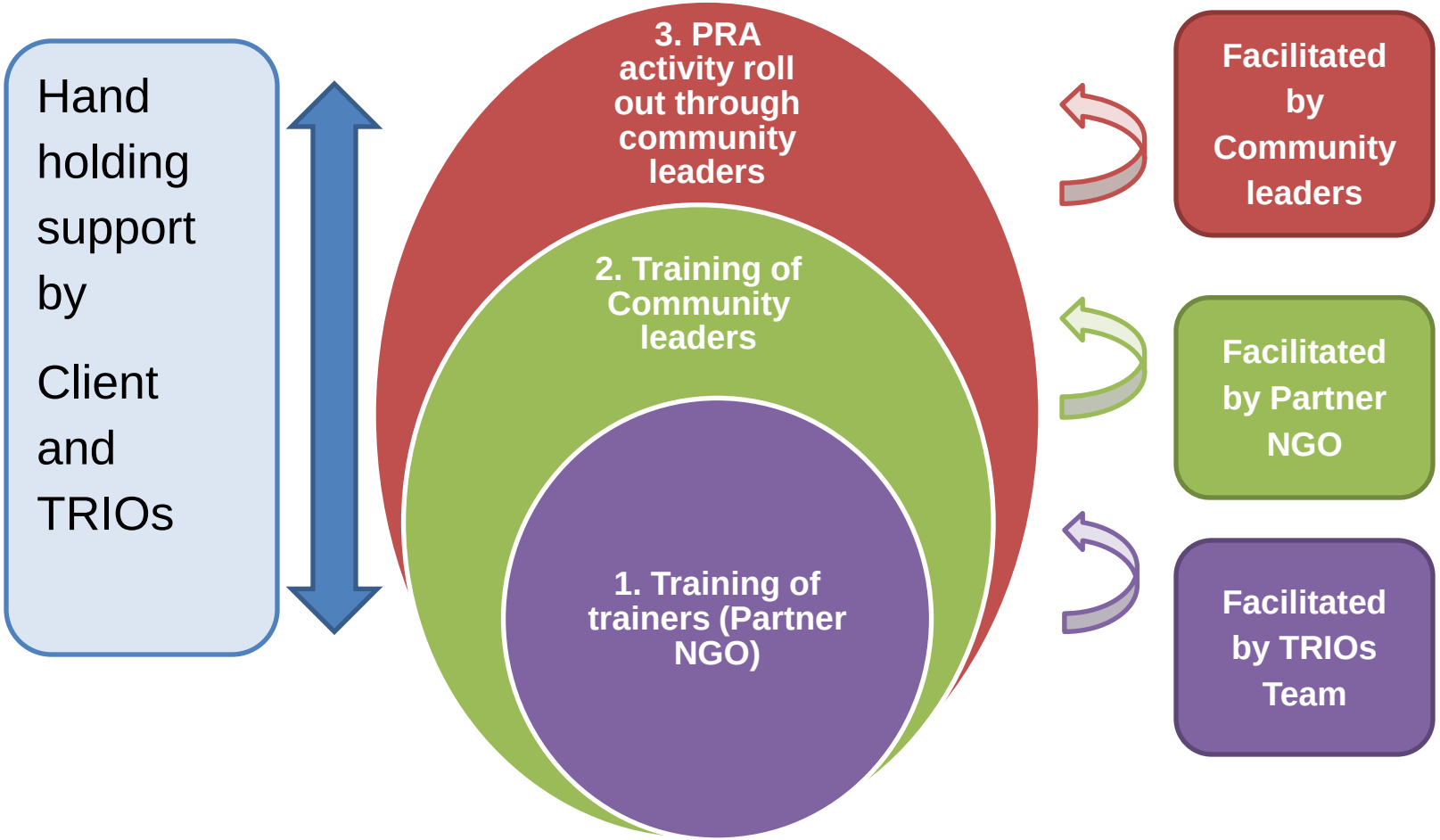
S.No	NAME	SYMBOL
1.	Orientation दिशा सूचक	
2.	Boundary सीमा	
3.	Roads सड़कें	
4.	Drain नाला	
5.	Temple मन्दिर	
6.	Mosque मस्जिद	
7.	Bridge पुल	
8.	House घर	
9.	Shop दुकानें	
10.	Trees/Bushes पेड़	
11.	School स्कूल	
12.	Anganwadi Centre (AWC) आंगनवाड़ी	
13.	Mobile Health Unit	
14.	Charitable Hospital	
15.	RMP (Registered Medical Practitioner) झोलाछाप	
16.	DOTS Centre	

SYMBOLS

S.No	NAME	SYMBOL
17.	NGO	
18.	RWA office	
19.	Vikas Kendra विकास केन्द्र	
20.	Industrial Area कारखानें	
21.	Food corners ढाबा	
22.	CTC (Community Toilet Complex) शौचालय	
23.	Model Toilet	
24.	Jal Board Supply जल बोर्ड पानी	
25.	Borewell	
26.	Booster Pump	
27.	Power House बिजलीघर	
28.	ANM Centre एनम केन्द्र	
29.	Dustbin कूड़ादान	


INDIRA KALYAN VIHAR CAMP PART – I OKHLA INDAREA-I
MAIN ENTRANCE
PARK
SCHOOL
ANANDMAI MARG
SCHOOL WALI GALI
MAIN NALA
(INDIRA KALYAN VIHAR-II, OKHLA PHASE-I)

Approach


Hand holding support by
Client and TRIOs
3. PRA activity roll out through community leaders
2. Training of Community leaders
1. Training of trainers (Partner NGO)
Facilitated by Community leaders
Facilitated by Partner NGO
Facilitated by TRIOs Team

Training of Trainers (TOT)

- 2 days workshop
- Capacity building of the program staff of implementing partners on the use of tools for mapping exercise and further how to mobilize and orient community for the filling up of tools and drawing the maps.

- Day 2- participants were taken to the field to practice the tools and to draw a community map. Areas selected for field visit were **Jeevan Jyoti camp** and **Janta Jeewan Camp**.
- Fieldwork strengthened the overall impact of the training through **learning by doing.**

Community Trainings

- Conducted for capacity building of the community group members and leaders on the use of tools for mapping exercise and further how to mobilize and orient community for the filling up of tools and drawing the maps.

Field Roll out Activities

- The field activities were carried out in 30 slums of North and South Delhi
- Community mobilization was the first step in starting the field activity.
- It was very important to encourage community members to talk about the issues related to health, nutrition, water and sanitation in their respective slums.

Perception Mapping

S. no	Question	Response	Number of people responded	Rating of issues identified
1.	What are the principal health problems affecting children under six years of age in this community?	Diarrhea	18	
		Cough/cold	16	
		Fever	14	
		ART	10	
		Pneumonia	15	

Transect Walk

- Local informants selected the route especially in locations that are considered highly vulnerable.
- Walk was started from a common point and was marked in the rough map by the note taker.
- As the walk progressed, when any of the key resources were found it was recorded based on the parameters.
- Parameters used

  Accessibility

  Availability

  Good point

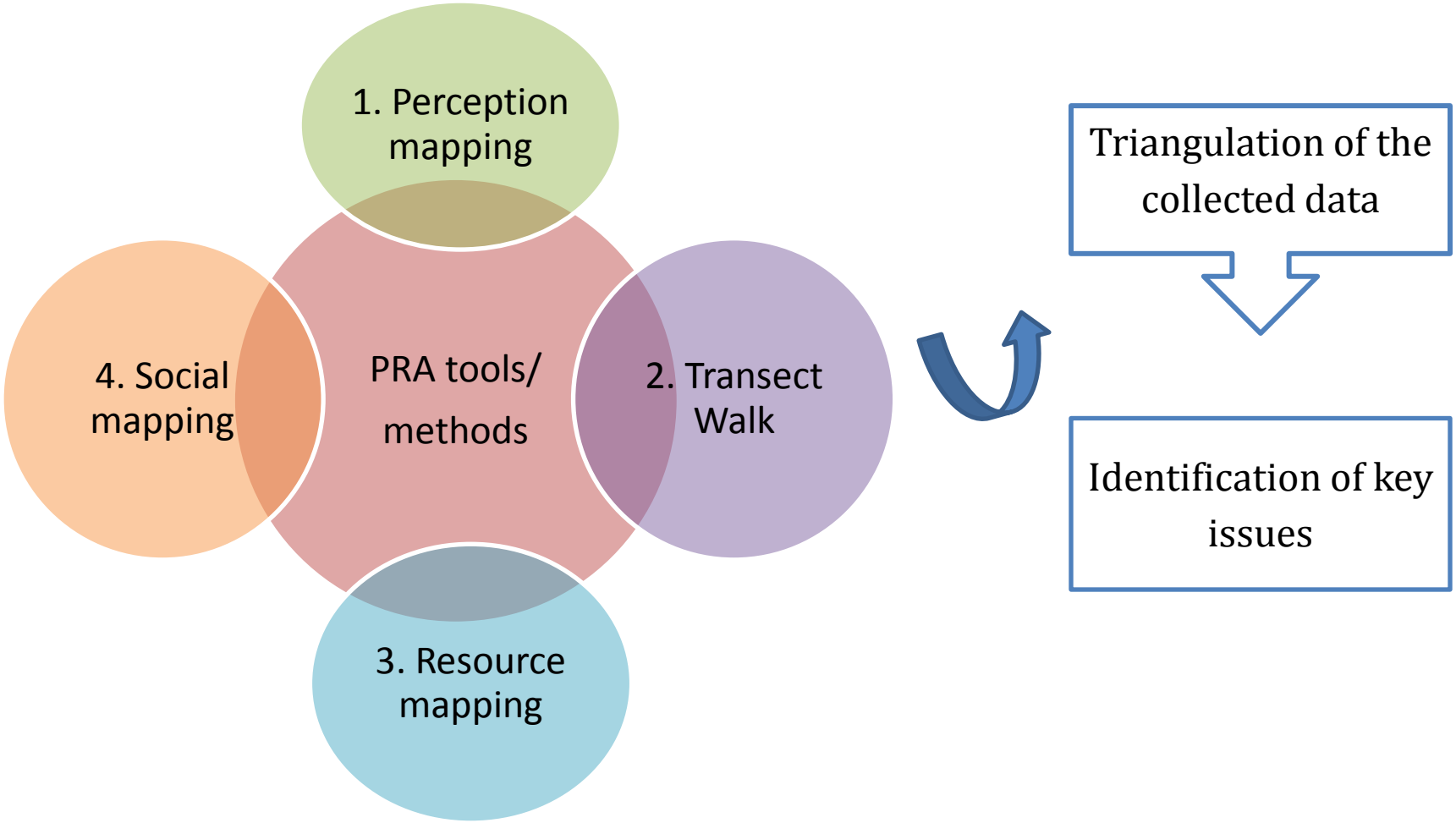
  Major issues

  Recommendations/Suggestions

Resource & Social Mapping

- The map depicted households, the health facilities, the ICDS centers, public utilities like water pumps, toilets etc. and other facilities that have a bearing on the provision of Health, nutrition and water and sanitation service.

Data analysis



Issues Identified

- Health Problems: Children(0-6) Years

Sno	Nature of Disease	Proximate causes
1	Diarrhea	Bad quality of drinking water,Unhygienic living conditions
2	Pneumonia	Seasonal
3	Cough/Cold	Seasonal
4	Jaundice	Bad quality of drinking water
4	Fever	Associated with other health problems
5	Malaria/Dengue	Open garbage dumps/Dirty open drains/Stagnant water
6	Abdominal Pain	Infection

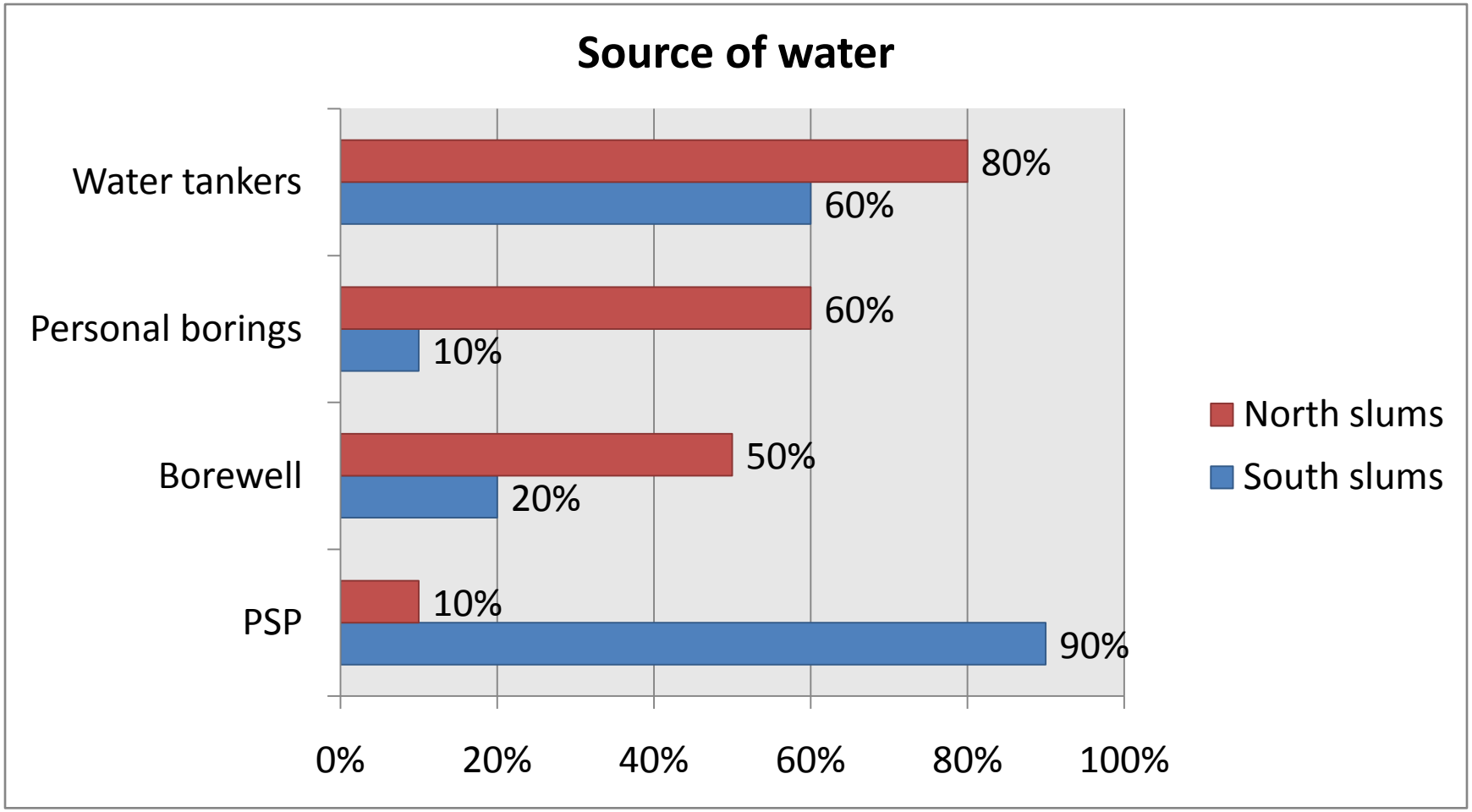
Diseases affecting women

Sno	Nature of Disease	Proximate causes
1	Leucorrhea (White Discharge)	RTI infection,Complication in pre-post pregnancy stage
2	Urinary tract infection/Reproductive tract infection	Poor personal hygiene ,Lack of Bathing units and toilets for daily use
3	Anemia	Poverty, lower literacy, poor living condition, repeated births, and limited access to health care facilities
4	Acute tiredness, Weakness	Inadequate food intake, heavy work load
5	Severe back aches	Work related both household and other
6	Headaches	Inadequate food intake/work environment and overall living conditions

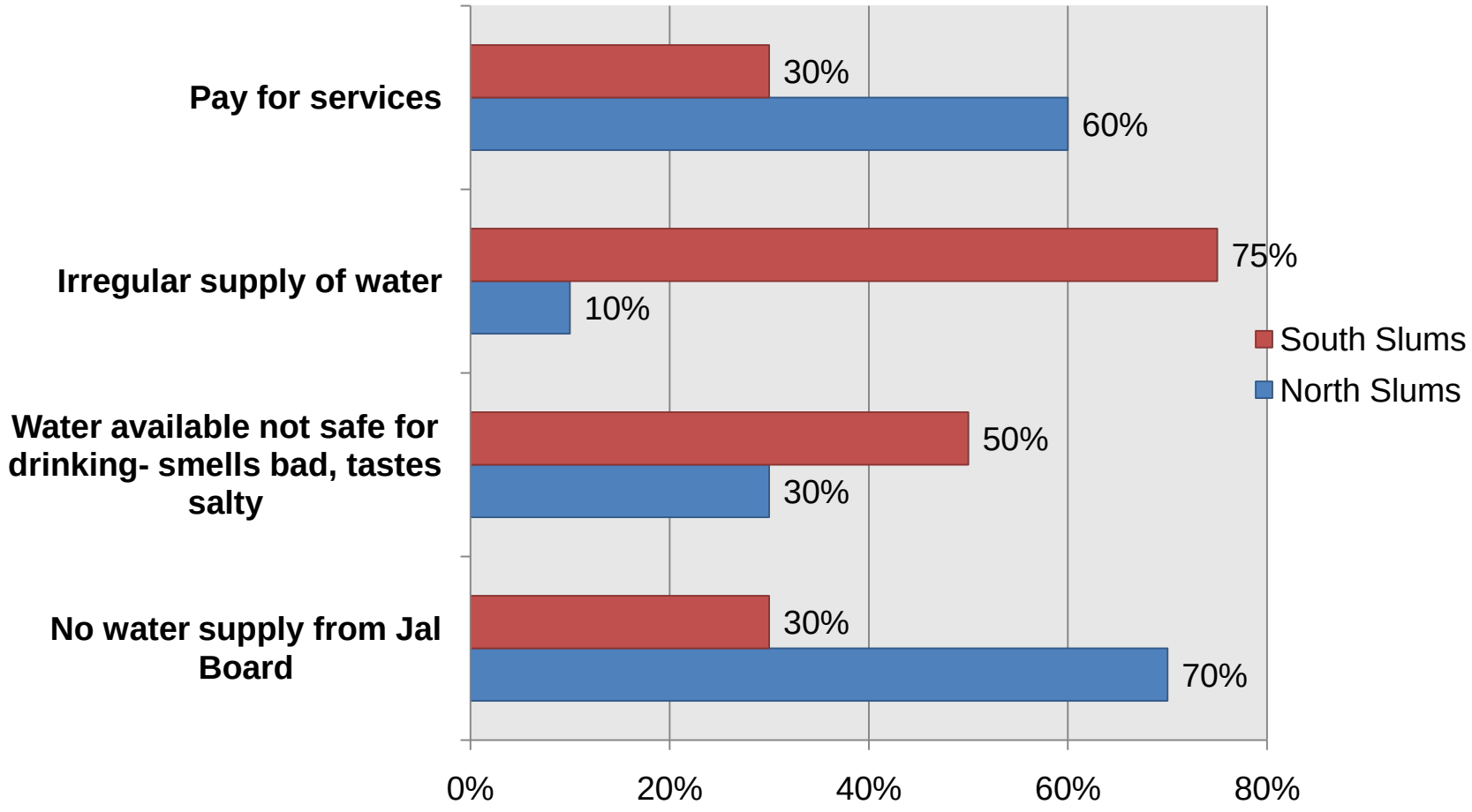
Diseases affecting men

Sno	Nature of Disease	Proximate causes
1	Tuberculosis	Smoking,Unhygienic living conditions
2	Gastric problems	Improper food habits,indigestion
3	Chronic diseases (Hypertension, Diabetes)	Poverty, poor socio-economic conditions, lack of awareness, stress due to urbanization, lack of adequate medical services
5	Chest pain	Smoking,Chronic diseases
6	Asthma	Overcrowding, Housing near factories and busy roadways

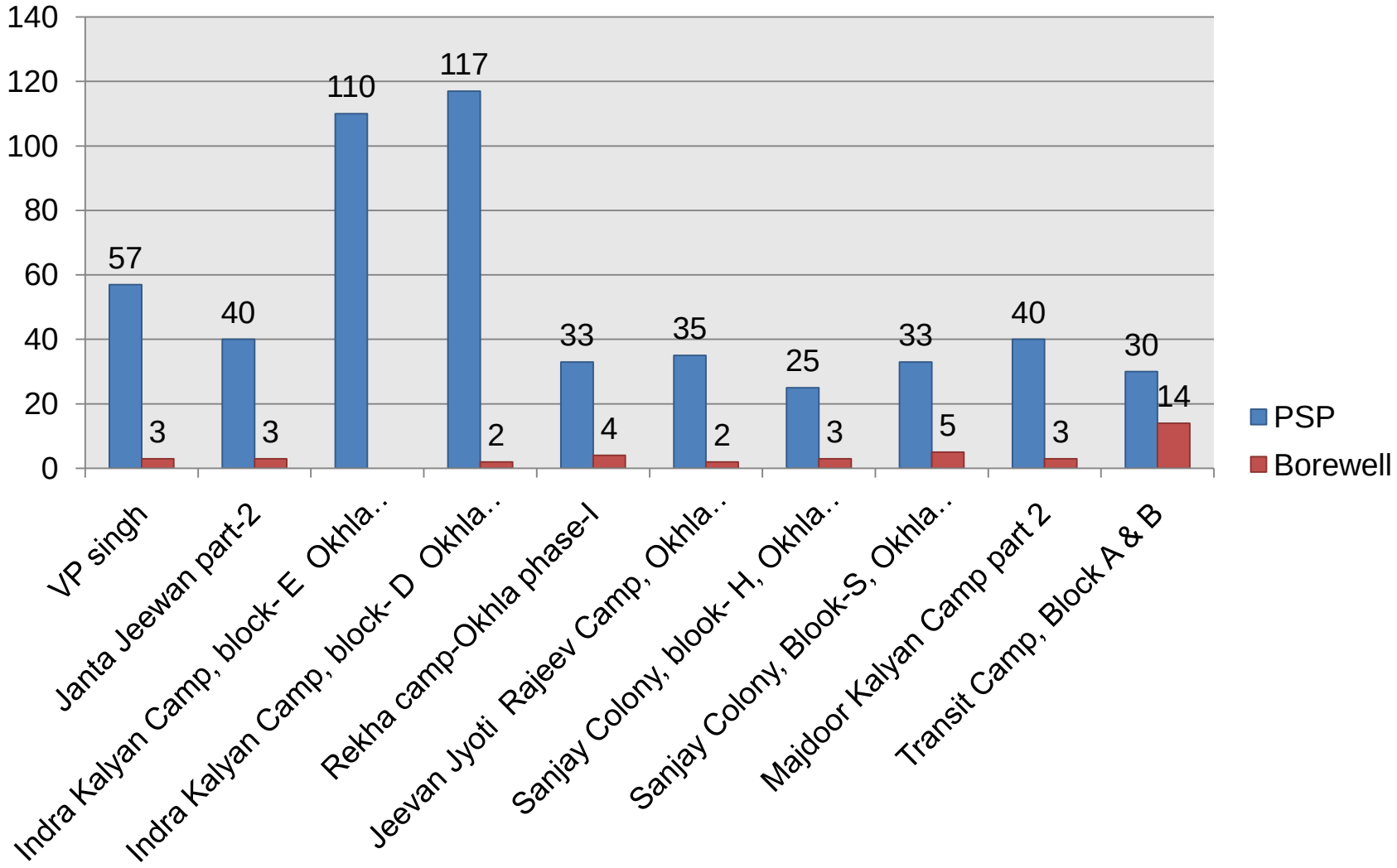
Water


Source of water
Water tankers
Personal borings
Borewell
PSP
80%
60%
60%
10%
50%
20%
10%
90%
0%
20%
40%
60%
80%
100%
North slums
South slums

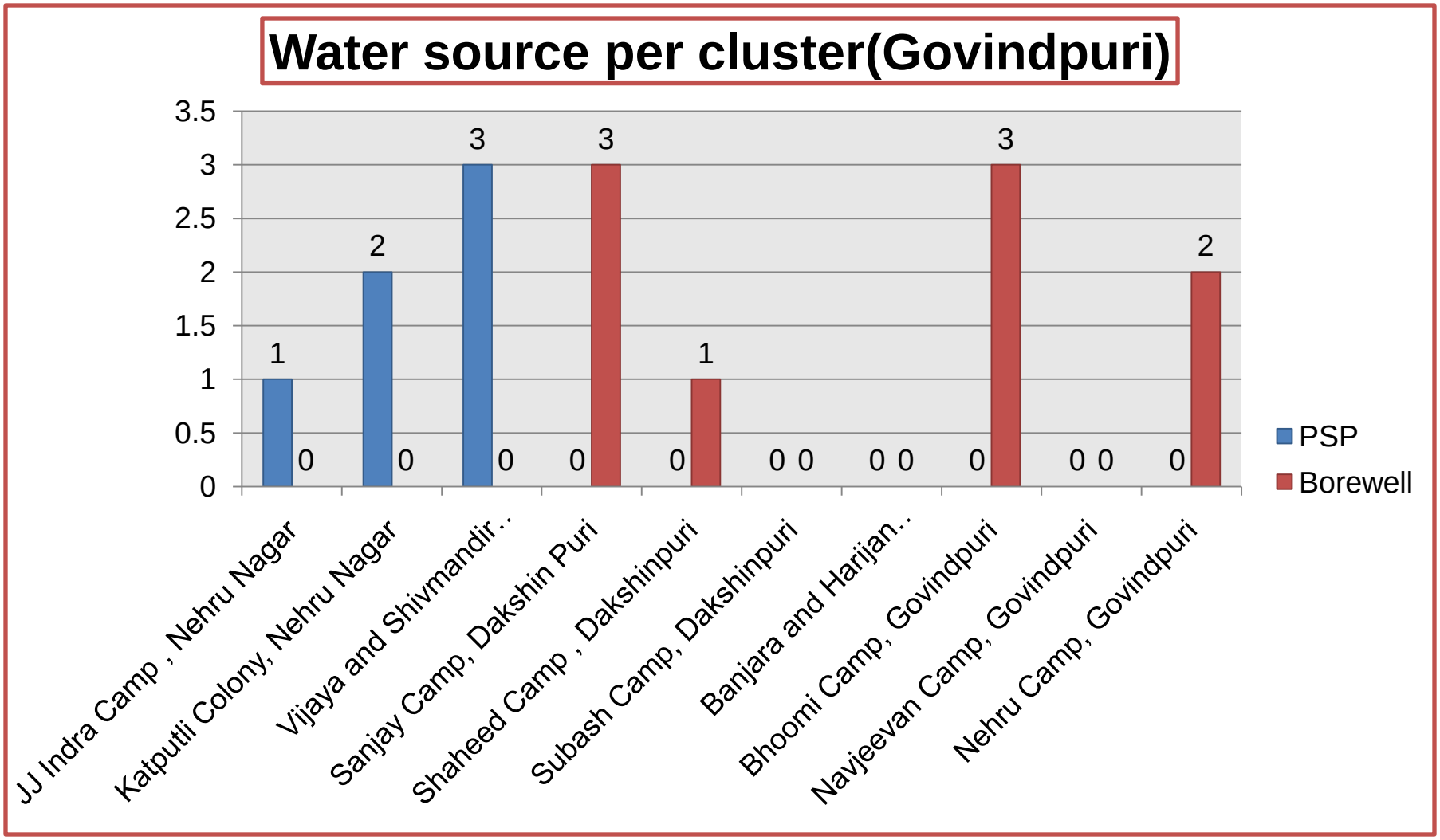
Issues related to potable water



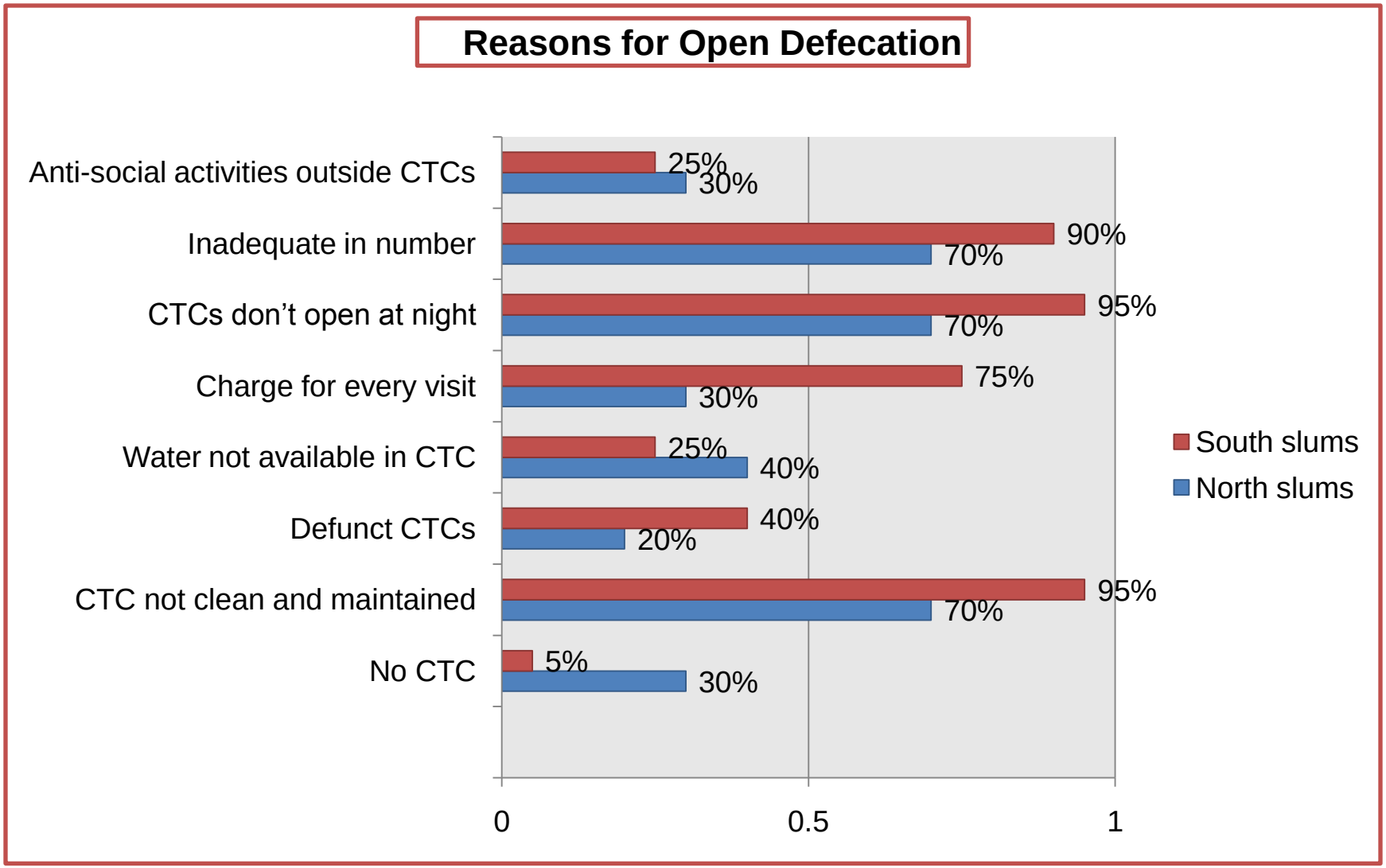
Water source per cluster(Okhla)



Water source per cluster(Govindpuri)



Sanitation


Reasons for Open Defecation
Anti-social activities outside CTCs
Inadequate in number
CTCs don't open at night
Charge for every visit
Water not available in CTC
Defunct CTCs
CTC not clean and maintained
No CTC
25%
30%
90%
70%
95%
70%
75%
30%
25%
40%
40%
20%
95%
70%
5%
30%
0
0.5
1
South slums
North slums

Drainage system

- open drains
- People usually throw all their household wastes in these open drains so drains get blocked
- The MCD workers were irregular and clean the drains once in 3-4 days therefore the people themselves clean the drains
- The drainage system was worse in South Delhi slums. Slums bear the brunt of overflows and backflows into their houses every rainy season
- In slums of Bawana, the situation was slightly better with the drains being pucca and cleaned regularly.

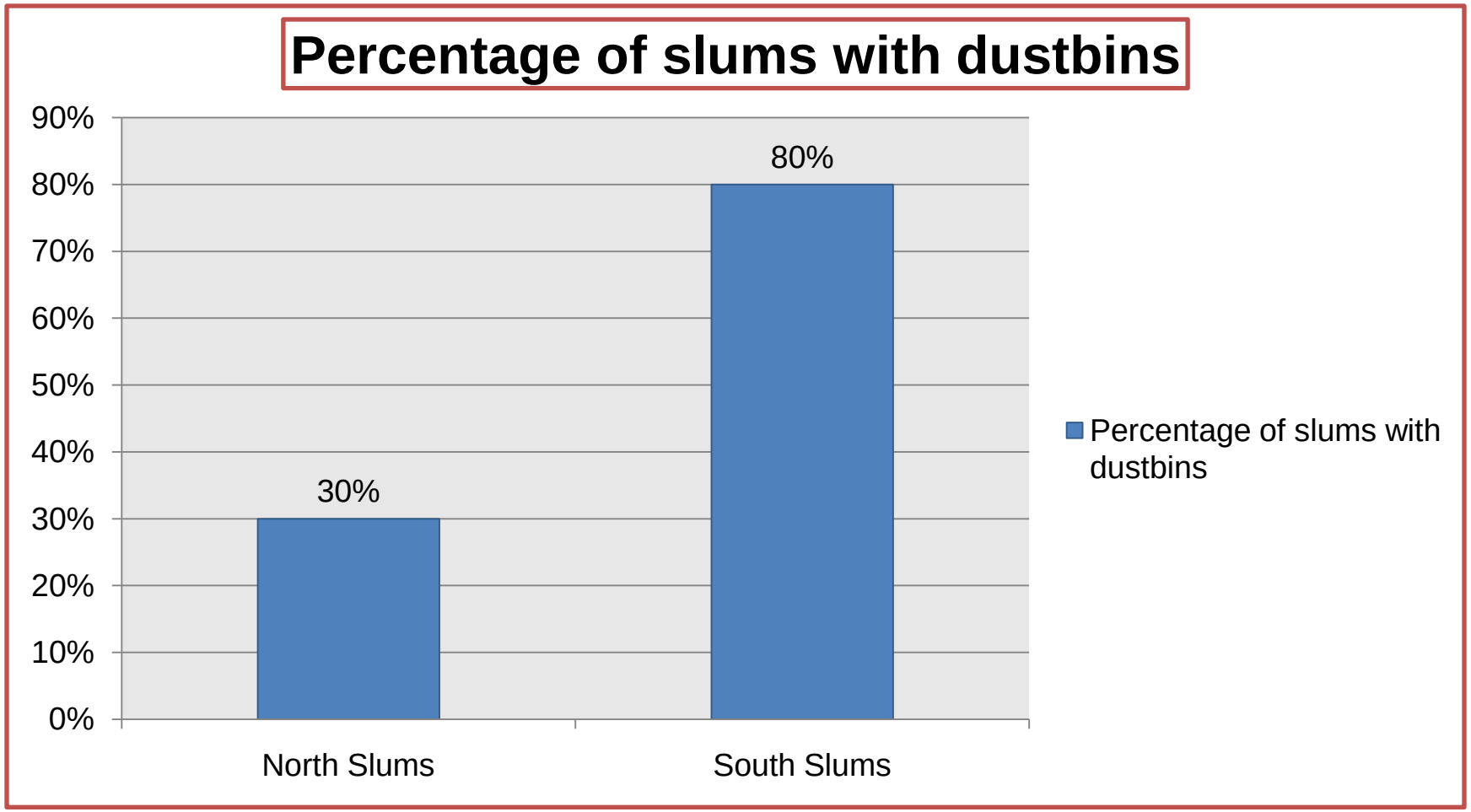
Problems with water and sanitation facilities in schools in slums:

- Water tanks were not clean and maintained. So children used to take water from their homes
- Toilet facilities were not available in most of the schools
- In some schools where toilets were there,they were not clean and maintained
- In most of the schools hand washing facilities were not placed in a proper place. Soaps and water were not available in toilets for hand washing
- The lack of safe drinking water and sanitation facilities make children more prone to diarrhea
- Due to lack of toilets in schools, girls were not going to schools

Solid waste management

Reasons for improper disposal of solid waste:

- Non Availability of dustbins
- Dustbins placed far off
- Non Availability of municipal vehicle/Irregular visits
- Lack of knowledge regarding importance of segregation of waste


Percentage of slums with dustbins
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
80%
30%
North Slums
South Slums
Percentage of slums with dustbins

Barriers to access health care facilities:

S no	Reasons for not availing health care facilities	North Delhi slums (10)	South Delhi slums (20)
1	Poor behavior of doctor/staff	3	2
2	Lack of conveyance	1	2
3	Cost of travel	1	3
4	Distance to health facility is more	2	6
5	Long waiting time	2	0
6	Overcrowding in the hospital	1	0
7	Unavailability of medicines	3	2
8	Lack of knowledge of health schemes	0	1

Key Learnings

- Slum people can do much that outsiders have thought they could not do
- It is important to reach out to different segments of a slum, especially when the slum has a very heterogeneous composition
- The slum houses on the main streets, facilitators often interact with first, not the representative of the more vulnerable sections.
- During the first few interactions with a large group, it is usually the more vocal people who express their opinions, while others remain quiet and still others are not even present.

- Participants in the meetings should be a mixed group
- All participants should be involved in the process; if the group is too large then form subgroups to engage all the participants.

Challenges

- Community Mobilization
- The community mobilization process raised expectations as well as creates demand for health services
- Because the trainings were conducted in slums only there was lack of space so it was difficult to adjust more people in small room. .
- The project had a specific schedule, including a fixed end-date and rigid reporting requirements.

Recommendations

- All slums are not equal- need for targeting the vulnerable
- **Prevalence of diarrhea** is found in all the slums affecting most of the children in age group of 0-6 years.- BCC activities, IEC material, Awareness campaigns at anganwadi centres
- **Improving Sanitation and Environmental living conditions-**effective coordination among various government departments and the urban local body

- **Status of community toilet** -a system based on empowerment of users, owning, operation & maintenance and collection of service charges by user groups seems to be a sustainable solution for rehabilitation of defunct community toilets and also for the construction of new ones.
- Ensuring sufficient and affordable water supply in all CTCs
- *Indira KalyanVihar ,Okhla,Phase –I* shows that CTCs and bathing complexes provide a model that can work in other slums also when supported by MCD authorities and NGOs

IEC messages painted in CTC premises

Child friendly toilets


शौच के बाद, खाने से पहले
साबुन से हाथ धोना ना भूले

Women friendly toilets

Water ATM


सहायता हेतु सम्पर्क करें
sarvajal
1800 103 2334
sarvajal
Scan Card
Press Button to Dispense
अन्दर
महिलाएं

- **Formation of community groups f**or assuring sustainable change in health, nutrition, water and sanitation conditions of Delhi's slums

  Community Cohesive Action Group (Ladies)

  Slum Health and Sanitation Team (Adolescents)

  Water Stand Points Management Group

  Toilet Management Group

- The technical upgrading of slums can be done by writing the street number outside each street**.**This step has already been taken in Indira Kalyan Vihar.


THANKYOU

District			
S.no	North	South East	
1	A Block, J.J.colony Bawana	V.P. Singh Camp	JJ Indra Camp , Nehru Nagar
2	B Block,J.J.colony Bawana	Janta Jeewan Camp part 2 Okhla - II/ Chawla camp	Katputli Colony, Nehru Nagar
3	C&H Block,J.J.colony Bawana	Indra Kalyan Camp, block- E Okhla area-I	Vijaya and Shivmandir Camp,Nehru Nagar
4	D-Jhuggi Block,Shahbad Diary	Indra Kalyan Camp, block- D Okhla area-I	Sanjay Camp, Dakshin Puri
5	E-Jhuggi Block,Shahbad Diary	Rekha camp-Okhla phase-I	Shaheed Camp , Dakshinpuri
6	K-Block (MIG Flat),Jahangirpuri	Jeevan Jyoti Rajeev Camp, Okhla Industrial area-II	Subash Camp, Dakshinpuri
7	Bharola GTK Road	Sanjay Colony, block- H, Okhla Industrial area-II	Banjara and Harijan Camp, Dakshinpuri
8	Sarai near Adarsh Nagar	Sanjay Colony, Block-S, Okhla Industrial area-II	Bhoomi Camp, Govindpuri
9	Lal Bagh I,Azadpur	Majdoor Kalyan Camp part 2 Okhla Phase -II/ W block Majdoor Kalyan Camp	Navjeevan Camp, Govindpuri
10	Lal Bagh-II,Azadpur	Transit Camp, Block A & B	Nehru Camp, Govindpuri