

Envisioning a Healthy Future for Children: *Role of Integrated Child Development Services (ICDS) and Anganwadi Workers in Health Education and Malnutrition in Mumbai, India*

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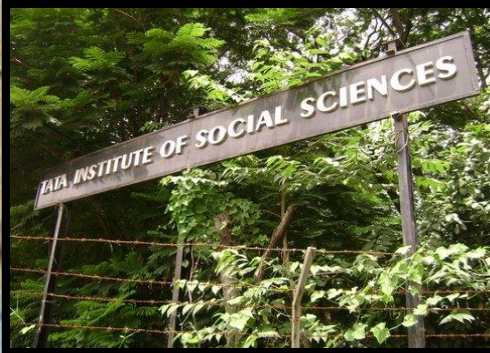
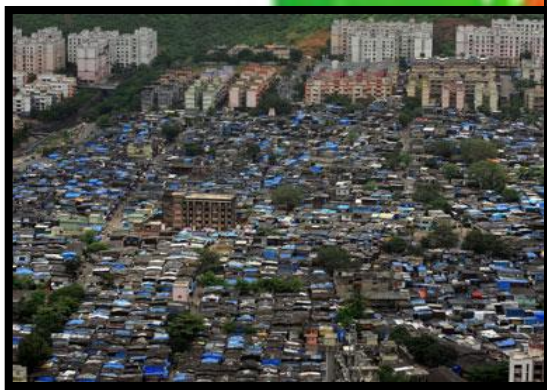
1. Texas A&M University 2. University of Minnesota 3. Johns Hopkins University

PRESENTER DISCLOSURE

Divya Talwar

The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“No relationships to disclose”



VISITING SLUMS

- Case study
- Research Community:
 - Situated on the swampy terrain and close to a municipal land allocating the disposal of the city's garbage
 - Also commonly referred as *dumping ground*
- Divided into Authorized (Plot 1) and Unauthorized (Plot 2) plot system

EXISTING GOVERNMENT PROGRAMS IN SLUMS

- Government Programs
 - ICDS (Integrated Child Development Scheme), TPDS (Targeted Public Distribution System), MDMS (Mid-day Meal Scheme)
 - Address food insecurity and nutrition
- ICDS
 - Anganwadis
 - Qualification
 - Job Responsibilities
- Pivotal role by NGO's

FINDING HEALTH CONCERNS

- Performed community needs assessment
- Conducted key informant interviews with
 - ICDS government officials
 - Anganwadi workers (AWW)
 - Non-governmental organizations (NGO's)
 - Private and governmental clinicians

RESEARCH QUESTION

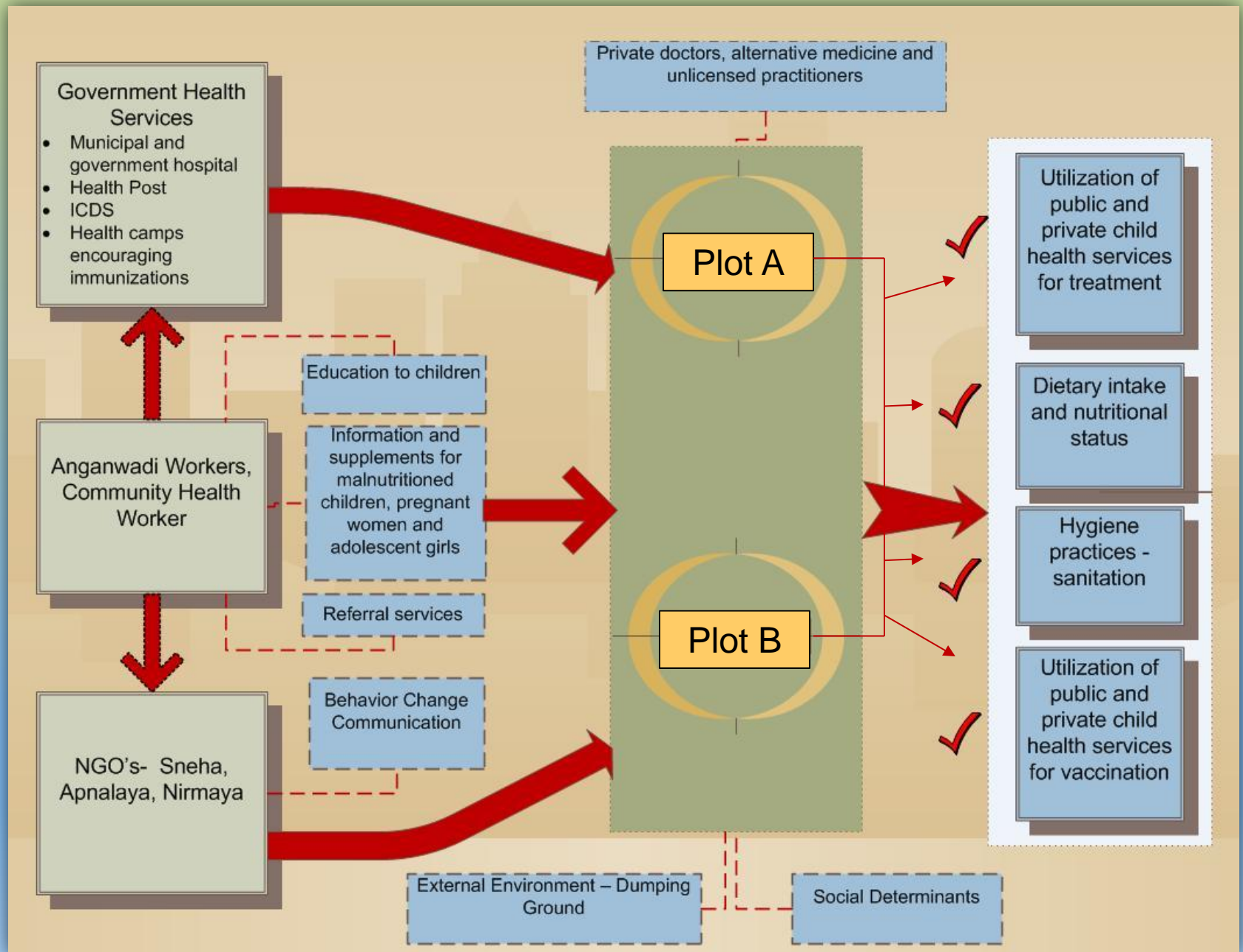
What is the utilization of existing dietary practice, hygiene practice & preventive and acute care health services

- in children below 6 years
- based on authorized and unauthorized plots?

VARIABLES OF INTEREST

- Nutrition
- Utilization of health services (for preventive & acute care)
- Water & hygiene practices
- Hygiene education

MAPPING THE RESEARCH APPROACH



METHODOLOGY

- Study population:
 - Families living in the slum with children below 6 years
- Recruitment:
 - Anganwadi's children registry
 - Door-to-door interviewing with community health workers
- Used standardized questionnaire to interview parent/grandparent

DATA COLLECTION FROM ANGANWADIS

- Survey instrument with 30 questions with 5 parts:
 - Background
 - Water
 - Nutrition
 - Vaccination
 - General Health
- Looked at 2 plots – A & B
- N = 72 children

Plot # _____ ID # _____

Hygiene Attitude and Practices of Parents with 3-6 Years Old Kids (01/07/2013 Version)

Part A: Background

1. How long have you lived in this area? ____ Yrs
2. How many people are living in your home? ____
3. The age and gender of your children
 - a. 1st children: ____ yo, Male or Female
 - b. 2nd children: ____ yo, Male or Female
 - c. 3rd children: ____ yo, Male or Female
 - d. 4th children: ____ yo, Male or Female
4. What is your relationship with this kid?
5. What is your education level?
6. What is the approximate income of your family per month? _____ Rs

Part B: Water

7. What is the source of drinking water supply at your home? (check all applied answers)
 - a. ____ no water supply
 - b. ____ tank
 - c. ____ pipe (legitimate/illegitimate)
 - d. ____ other source, _____
8. How often do you have access to this source of water?
9. How do you store drinking water? (how much?)
10. Do you reuse your water? If so, how and for what purpose?
11. Do you wash hands before cooking?
12. Do you wash fruits and vegetables before cooking?
13. Do your children wash hands before eating?
14. Do you children wash hands after using the toilet?
15. Do your children take a bath every day?
16. Do you think washing hands or taking a bath is important for your children's health?

Part C: Nutrition

17. Where do your children use the toilet?
 - a. ____ outside ground
 - b. ____ family toilet (inside/outside)
 - c. ____ community toilet
 - d. ____ other place, _____
18. How many meals does your child eat per day? ____ meals/day
19. How many meals do you prepare per day?
20. Have you been told that your child is below normal weight?

Part D: Immunizations

21. Where did your children receive vaccination (public or private sector)?
 - a. ____ public sector such as Health Post
 - b. ____ private sector such as clinic, hospital, or nursing home
 - c. ____ both public and private places
 - d. ____ did not receive any vaccination
 - e. ____ forget the place
22. Do you have the record?
23. Why did you choose this public/private sector for your children to get the vaccine?

Part E: General Health

24. What health problems have your children had in the past year? _____
25. If your child had diarrhea for 3 or more days, where would you seek treatment?
 - a. ____ government clinic
 - b. ____ private clinic (NGO/clinician)
 - c. ____ other
26. Has anyone discussed the hygiene issue with you such as the teacher of your children or the doctor of your children?
 - a. ____ yes
 - b. ____ no
27. If yes, who gave you the information?

RESULTS

Demographics	Plot A	Plot B
Average Age of Children 0-6 years	3.8	3.3
% Males / % Females	43/57	51/49
Male : Female Ratio	0.76	1.05

Nutrition	Plot A	Plot B
Average number of meals/day	3.1	3.5
% of children eating at school or Anganwadi	96.9%	88.5%
% of Underweight children below 6 years	22.9%	28.6%

RESULTS

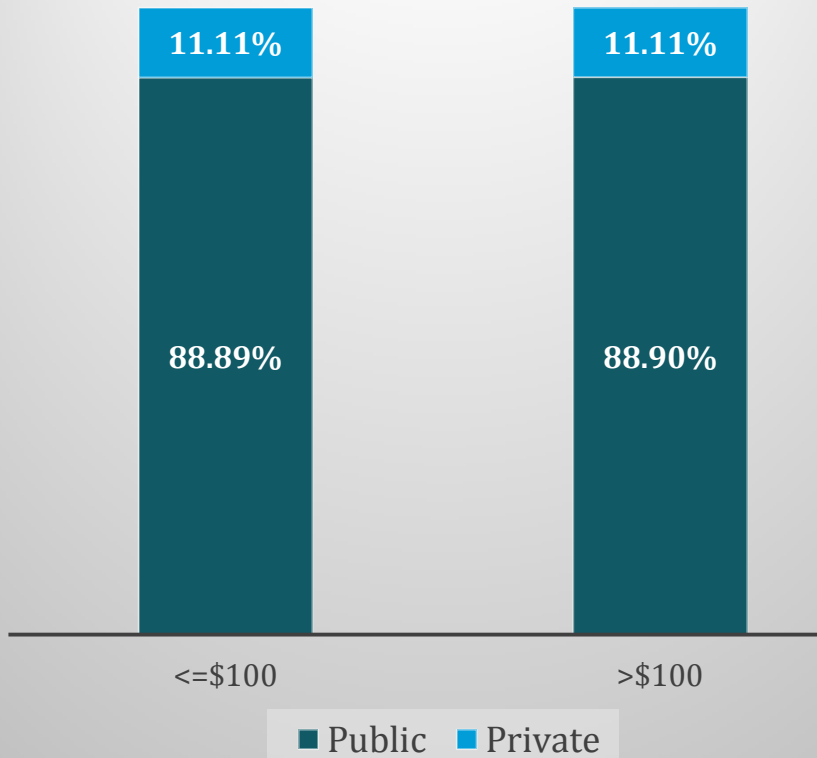
Health care utilization (Immunization)	Plot A	Plot B
Vaccines given at/by public health post	83.8%	82.9%
Vaccines given at private health center	8.1%	14.3%
Vaccines given at both public & private centers	8.1%	2.9%
Households with vaccination record	72.2%	85.7%

RESULTS

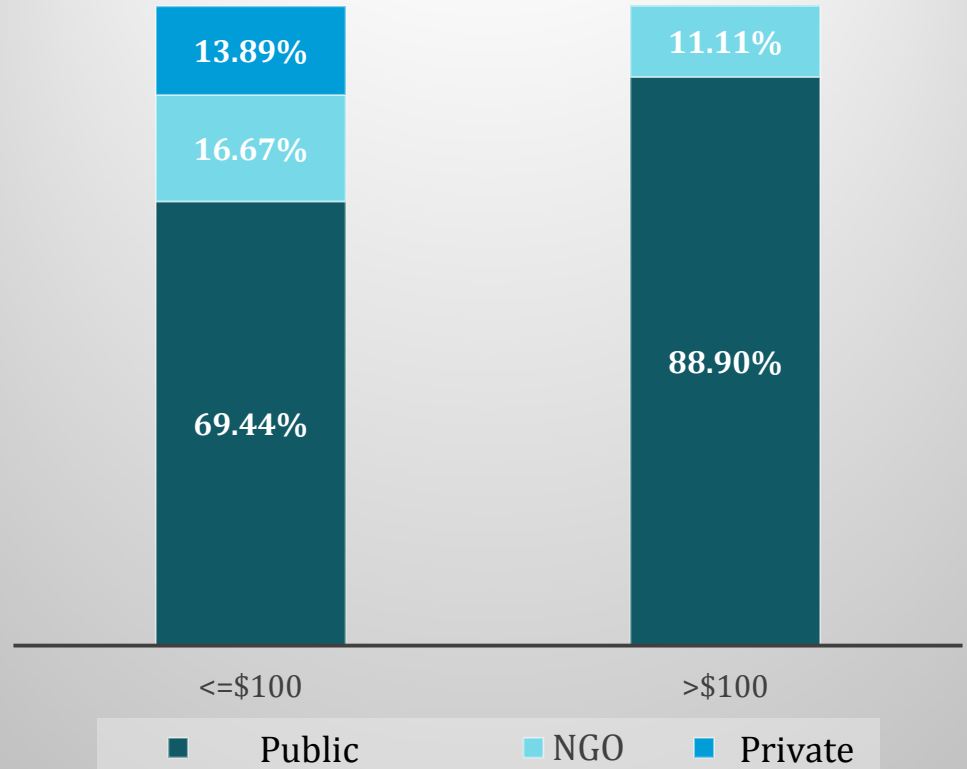
Health care utilization (Acute care)	Plot A	Plot B
Government (clinic/hospital)	2.7%	11.4%
Private - NGO	21.6%	5.7%
Private - Clinician	75.7%	82.9%

RESULTS: HEALTHCARE UTILIZATION BY INCOME LEVEL

Vaccination



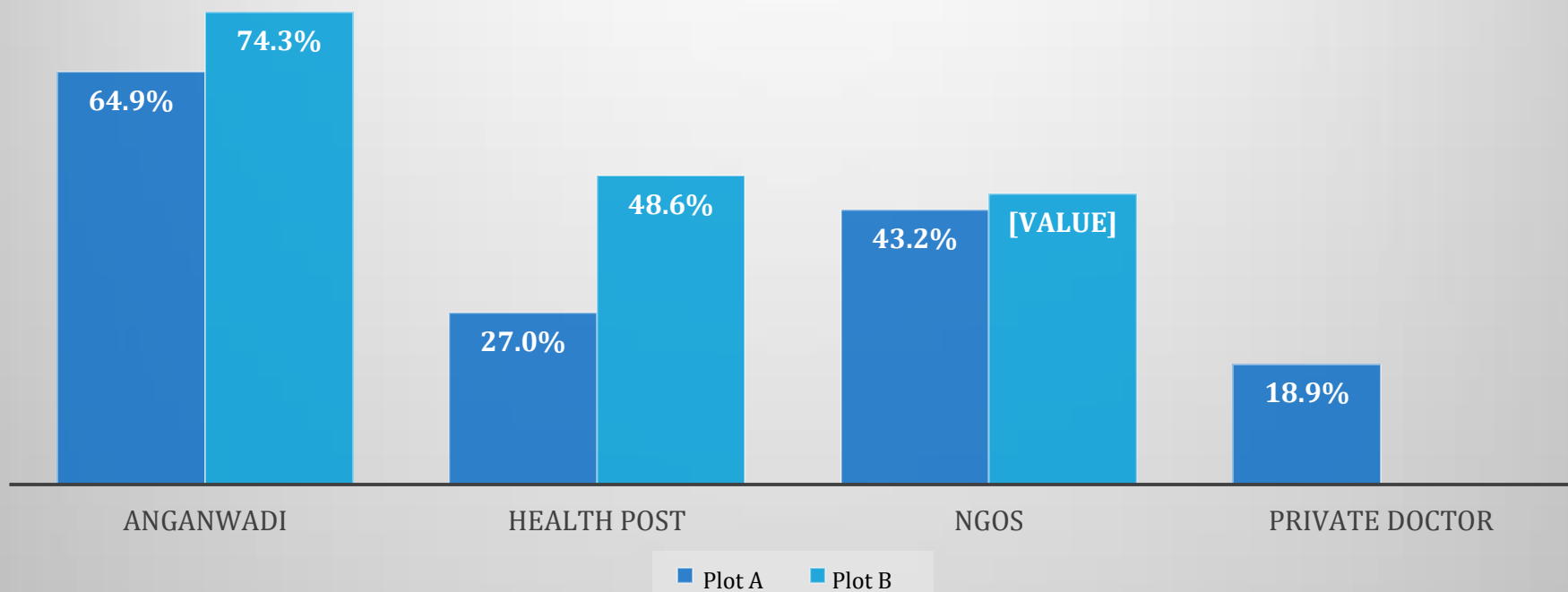
Acute Care



RESULTS: HYGIENE EDUCATION

	Plot A	Plot B
Families receiving hygiene education	89.2%	77.1%

Sources of Hygiene Education



DISCUSSION

- Quarter of the total sample reported underweight children
- Higher income families utilized services for acute & preventive services from public services

DISCUSSION

- Lower income used greater private facilities for acute care
- *Government programs have made highest contribution to hygiene education, immunization coverage, meals for underweight children. However efforts needs to be made for access to acute care*

HEALTHCARE UTILIZATION

- Top 3 Reasons for **choosing government centers**
 - Free of cost
 - Better quality of care for preventive services
 - Location and easy accessibility of services

HEALTHCARE UTILIZATION

- Top 3 Reasons for choosing **private centers for Acute care**
 - Better quality of care for Acute care
 - Access to services (esp. near dumping ground)
 - Long wait at government clinics/hospitals

CONCLUSION cont'd.

- Outreach efforts by AWWs workers at grassroots level on nutrition, preventive health and education among underprivileged children and families have yielded valuable outcomes
- ICDS program had positive effect on the maternal-child healthcare, especially in areas of need

CONCLUSION

- Most of the burden in such areas is shared by the community health workers and local doctors who work as a team despite limited resources, low income and inadequate training of AWWs
- Programs such as ICDS could serve as a template for interventions in communities with higher rates of both infant and under-five mortality rates

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QUESTIONS?

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