

ESRC Impact Acceleration Account 76702

Final Report

The impact of an educational intervention in West Bengal (India)

NNEdPro (Need for Nutrition Education/Innovation Programme) Global Centre for Nutrition and Health is an award-winning, interdisciplinary think-tank, training academy and knowledge network anchored in Cambridge which provides a centre for global excellence. Our principal hubs are in Cambridge, London, Ulster and Parma. Our international networks, including regional hubs, extend from North America, through Africa and South Asia to Australasia.

We work via strategic partnerships and key collaborations, and also offer membership of our academy. Our aim is to improve nutrition-related health outcomes by training professionals, strengthening research, implementing solutions and addressing inequalities, in line with the United Nations' Sustainable Development Goals and Decade of Action on Nutrition 2016-2025.

About the project

The project '**The impact of an educational intervention in West Bengal, India**' was an eight-month project (15th April 2017 – 14th December 2017, later extended to 28th February 2018) sponsored by the ESRC Impact Acceleration Fund (76702).

A key feature of the project was the co-organisation of a workshop with the NNEdPro to set the foundations as well as plan the next steps for the Teaching Kitchens.

A wide range of stakeholders in India participated, including health, academia, NGOs, civil society, government and other key influencers in the fields of education and nutrition.

The Impact Acceleration Workshop on Nutrition



The one-day workshop "**Teaching Kitchens: Next Steps in Policy and Sustainability**" was held on 25th October 2017 in Kolkata, India, organised by NNEdPro, the University of Cambridge and the Remedy Clinic Study Group, and funded by the Economic and Social Research Council.

The aims of the workshop were to:

- Explore the role of nutrition in children's growth and development, cognitive skills and learning abilities;
- Advance and implement nutrition knowledge to improve health, wellbeing and society; and
- Sought to gain consensus around the role of nutrition education and teaching kitchens in empowering communities and the issues of food, faith and the goals of development.

82 stakeholders attended the workshop, including representatives from academia, dietitians, nutritionists, housewives, teachers, representatives from NGOs, hospitals, business as well as media.

Workshop evaluation

To evaluate the impact of the workshop, pre-workshop and a post-workshop surveys were conducted to capture what audiences learnt from the workshop.

46 participants gave feedback on both pre- and post-workshop questionnaires.

From the feedback, topics reported to be the most interesting and useful were:

- Nutrition and hydration – hunger and thirst – a global perspective;
- Taking control of metabolic disorders with good food choices;
- Effect of nutrition on learning, education and employment for sustainable livelihoods;
- New age leadership to nurture a healthy world.

The workshop highlighted a keen interest by participants from across the community in learning about nutrition and applying their knowledge to reduce malnutrition in all its forms.

Over half of survey respondents would like to contribute to the Teaching Kitchen Project.

The Launch of Teaching Kitchens, Kolkata

In the same week of the workshop, on 24th October 2017 two NNEdPro teaching kitchens were officially opened in the slums of Kolkata to empower local communities through the power of nutrition education.

These kitchens were launched with 'live' demonstrations conducted by NNEdPro, their local partners RCSG and volunteers from the Inner Wheel Club of Greater Calcutta as well as local dietitians and nutritionists to showcase how the kitchens in Chetla and R G Kar Canal areas could be utilised by local communities to run sample cooking demonstrations, deliver health and malnutrition screenings and disease prevention sessions.

The team engaged deeply with the local communities and in addition to the inaugural ceremonies and cooking demonstration, they conducted Q&A sessions, and distributed a pre-prepared nutritionally balanced local meal.

Train-the-Trainers: Continuous Top-Up Training

Inner Wheel Club members of Kolkata that volunteered to transfer knowledge and teach appropriate methods of cooking were given training on affordable, local, nutritious food through cooking demonstrations and dialogue on health and hygiene from local dietitians and health professionals in July and November 2017.

The initial training in July saw 13 volunteers from the Inner Wheel Club of Greater Calcutta in attendance. At the Top-Up refresher training session arranged for the Inner Wheel Club volunteers on 17th November 2017 at PYC, Lake Town, 10 volunteers who previously participated in the July trainings and who are actively engaged in the Teaching Kitchen programme were enlisted for the cooking demonstrations where they gained further practical advice regarding slum visits from a team of dietitians and doctors.

'See One-Do One-Teach One' Teaching Kitchen Workshops in Urban Slums

Impact Acceleration Workshop & Teaching Kitchens MediaIndia Group Online magazine:

<https://mediaindia.eu/social-vibes/teaching-kitchens-to-accelerate-nutrition-education/>

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Teaching Kitchens to accelerate nutrition education

NNEdPro takes the balanced step

By Shashi Deepanshu Poddar On: November 3, 2017 in Social Vibes. # Kolkata



In India, 43 per cent of children under five years of age are malnourished, the importance of nutrition education still remains an abyss.

Malnourishment or under-nutrition remains a persistent problem in developing countries, especially with 80 per cent of the developing world's chronically undernourished (stunted) children living in Asia and Africa.

The effects of under-nutrition can be adverse ranging from stunted to mild that can undermine the survival, growth and development of children and women which ultimately affects the strength and capacity of a nation. "With persistently high levels of undernutrition in the developing world, vital opportunities to save millions of lives are being lost, and millions of children are not growing and developing to their full potential," reports UNICEF.

"Nutrition is a core pillar of human development and concrete, large-scale programming not only can reduce the burden of undernutrition and depression in countries but also can advance the progress of nations," it adds.

A balanced step



Dr. Vile Parivash, NNEdPro Senior Collaborator and Dr. Misha Rajput, NNEdPro Medical Director were two of the workshop (left to right)

NNEdPro in association with The University of Cambridge, Economic and Social Research Council's Clinic Study Group launched the Teaching Kitchens in the slums of Kolkata and engaged with stakeholders in an Impact Acceleration Workshop in Nutrition to sensitise the under-addressed issue of nutrition.

The NNEdPro Global Centre for Nutrition and Health is an international and interdisciplinary think training academy and knowledge network anchored in Cambridge it is dedicated to nutrition and improvement via education, research, evaluation and advocacy.

NNEdPro's Teaching Kitchens initiative is a multi-purpose space that aims to serve as a community raising awareness about good nutrition practices, health promotion, malnutrition screening and disease prevention while regarding hygiene and measuring the magnitude of health hazards in urban areas.

While undernutrition is substantially higher in rural than in urban areas, the condition of the slum much better off. On October 24, 2017, NNEdPro launched its pilot Teaching Kitchens project in the slums of Chetla and R G Kar Canal where delegates and community workers showcased and demonstrated Teaching Kitchens space can be utilised by local communities through distribution of a nutritionally locally prepared meal in addition to holding taster cooking demonstrations and engaging with the communities.





From 9th December 2017 to 27th January 2018, 6 Teaching Kitchen workshops were conducted using the 'See One-Do One-Teach One' methodology in temporary spaces in the slums of Chetla and RG Kar.

Dieticians, nutritionists, RCSG, NNEdPro and Inner Wheel volunteers conducted these workshops with women and children from the slums to transfer knowledge about how to create local, affordable, nutritionally balanced meals, and deepened overall engagement and awareness with and of the local population.

The pilot workshops were critical for sensitising all stakeholders involved - from the local population to the functions of the Teaching Kitchen project, as well as the team to the needs and requirements of the community.

Engagement levels amongst children and women in both slums were promising, and in addition to the impact on women and opportunities the Teaching Kitchen presents for social and economic empowerment, the space also provides opportunities for youth and teenagers who were a highly engaged demographic. This highlights the potential for Teaching Kitchens as a tool or learning lab for vocational education for children, teens and young adults that could prepare them to work in a range of trades. The general feedback from the community was that they enjoyed the workshops and would like the programme to continue.

Interactive discussion on the Teaching Kitchens Project



On 5th February 2018, Professor Ianthi Tsimpli visited a Teaching Kitchen in Chetla. On the following day, she visited the mobile teaching kitchen at the R G Kar Canal in the morning. In the afternoon, she participated a half-day interactive discussion at Kolkata on the NNEdPro's "Teaching Kitchen" project.

In the panel discussion, she gave a brief presentation on the outcomes from the Workshop. She also highlighted the common ground between NNEdPro and her research in India, her current four-year project on Raising Learning Outcomes (ESRC-DfID) and open questions for future research and collaboration on nutrition and learning development.

Following the panel discussion, she and Professor Sumantra Ray (the Founding Chair and Executive Director of NNEdPro) together with the RCSG led the interactive discussions and Q&A with volunteers and champions to

discuss the progress, next steps and plan practical steps to ensure long-term sustainability of the Teaching Kitchen project.

Additional activity: Launch of the Mobile Teaching Kitchen for Health¹



To add value to the programme taking place in spaces in the slums, a van has been refitted to create a Mobile Teaching Kitchen unit which will enable NNEdPro to bring the programme to other communities across the City of Kolkata where lack of space presents a challenge and enable greater outreach.

The Mobile Teaching Kitchen unit was inaugurated in February 2018 in the RG Kar area and in the presence of the local community comprised of women and children that it will be serving. The women that had participating in the earlier workshops participated eagerly in the Mobile Teaching Kitchen demonstration within the mobile vehicle.

Moving forward

Based on the evidence from the Impact Acceleration activities, which was carried out in the last eight months, showing a growing interest in Teaching Kitchens across India, Professor Tsimpli and NNEdPro would like to pursue further studies focusing on the following issues:

- Nutrition education to mothers and caregivers from disadvantaged backgrounds, in India, in relation to their children's wellbeing, cognition, learning and emergent literacy and numeracy skills
- Expand the knowledge on the nutrition-led interventions (the Teaching Kitchen initiative) on women's awareness of best dietary practices for them and their families
- Share knowledge and findings from the Teaching Kitchen initiative to all stakeholders to create a longer-term change in attitude and outcomes for better education and wellbeing

The discrepancy of staff and non-staff costs in the planned and actual expenditures

There was a discrepancy between the planned and actual expenditure in terms of staff vs. non-staff costs. In the planned expenditure, £8,000 was allocated to the staff cost and £7,000 was allocated to the non-staff cost. However, nearly 86 per cent of the actual expenditure, £13,000 of the total £15,000 was allocated to the NNEdPro to organise the Workshop in India, which was charged under the non-staff cost. Professor Tsimpli's travel cost to India was also charged under the non-staff cost. The only expenditure to be charged in the staff cost was the payment for a temporary Research Assistant (RA) employed by the University's Temporary Employment Services from January to February 2018. The main duty of the temporary RA was to do the analyses of the pre- and post-workshop questionnaires and contribute the writing of the final report for the submission to the ESRC Impact Board. Overall, the whole project was achieved within the allocated budget.

Impact Acceleration Workshop in Nutrition

¹ The Mobile Teaching Kitchen Unit was funded by a British Medical Association (BMA) charities grant and from a Global Open Data for Agriculture and Nutrition (GODAN) partnership seed funding.

25th October 2017, Kolkata

Respondents' feedback on the workshop

Participant Pre-Workshop Questionnaire

82 persons attended

46 persons gave feedback (56%)

Profile of respondents

Gender	No.	
Female	32	70%
Male	8	17%
missing	6	13%
Total	46	100%

Age group	No.	
18-29	10	21%
30-39	5	11%
40-49	7	15%
50-59	9	20%
60-69	8	17%
70-79	2	4%
missing	5	11%
Total	46	100%

Educational level	No.	
Higher secondary	1	2%
Undergraduate	16	35%
Master	18	39%
Ph.D.	11	24%
Total	46	100%

Profession	No.	
Dietitian	15	33%
Housewife	8	17%
Nutritionist	4	9%
Teacher	4	9%
Medical profession	3	7%
Social work/services	2	4%
Student	2	4%
Others	5	11%
missing	3	7%
Total	46	100%

Organisation	No.	
NGO	15	33%
Hospital	12	26%
Education institute	4	9%
Others	8	17%
Unknown	7	15%
Total	46	100%

Pre-Q1. What do you hope to learn from participating at the impact acceleration workshop in nutrition?

Hope to learn	Nutritionist	Dietitian	Housewife	Teacher	Other	Total
Nutrition	2	13	3	4	10	32
Proper cooking	1	0	1	0	1	3
Healthy lifestyle	0	0	2	0	0	2
Other	1	2	1	0	3	7
None	0	0	1	0	1	2
Total	4	15	8	4	13	46

Pre-Q2. What do you aim to share with other participants at the impact acceleration workshop in nutrition?

Share with others	Nutritionist	Dietitian	Housewife	Teacher	Other	Total
Knowledge	3	7	7	3	7	27
Working experiences	0	6	0	0	6	12
Other	1	2	1	1	1	6
None	0	0	1	0	0	1
Total	4	15	9	4	14	46

Pre-Q3. Do you have any questions for the speaker in advance of the workshop?

27 had no questions for the speaker.

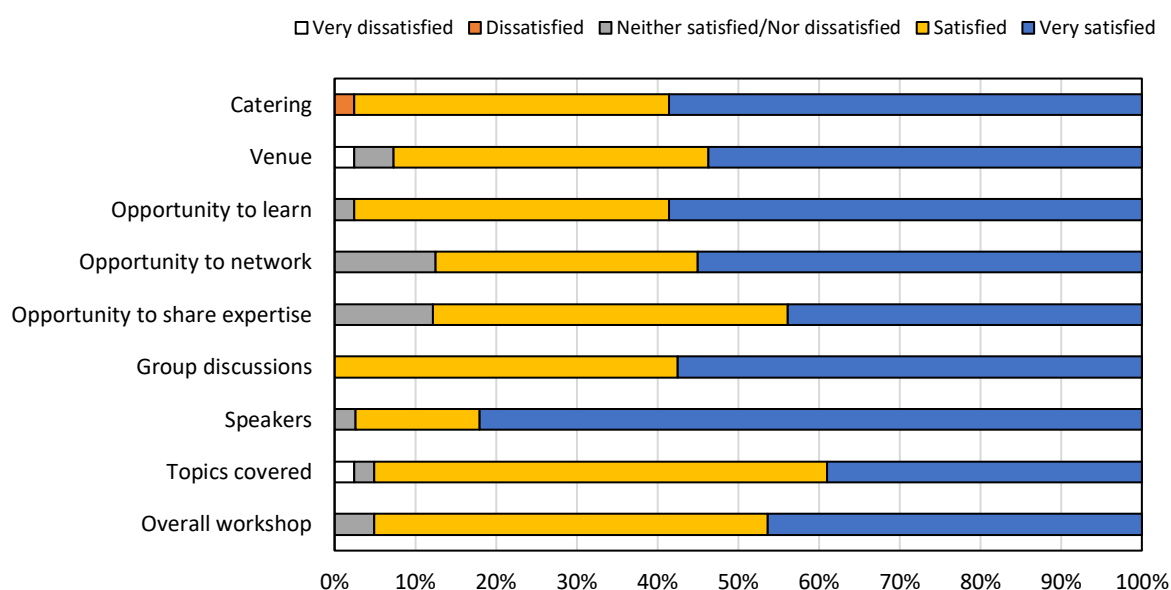
- Can one of the speaker sum-up our exact job towards the 'Teaching kitchen'?
- Guide us to prepare nutrition and food that will enhance our life
- How can nutritional education be made more effective? How to promote healthy food at family/community level for control obesity?
- How to approach and deal to improve the health condition of the masses?
- How to fulfil the purpose of the theme of healthy kitchen for health?
- How to go about the food available in the recent times with relation to nutrition?
- How to implement nutrition strategy in community nutrition?
- How to tackle logistic/knowledge gap/other deficiencies regarding development of teaching kitchen?
- Is fasting helpful for detoxification of body?
- Know about more kitchen technique scientifically
- Learn more from you
- Linkages with energy, water, etc.
- Motivation to work in slum area.
- Need more information and audio visual aids and slides, which we can use in the fields.
- Often forget to practice proper food, health lifestyle, expect the profession will guide us.
- Present scenario of nutrition in our country, appropriate steps to be taken by government initiatives.
- Speakers are so informative, want to start nutrition crash course for public.
- To write to media to make society aware of the job you all have done.
- Want to know more about teaching kitchen.

Participant Post-Workshop Questionnaire

41 persons gave post-workshop feedback (50%) in which 38 completed both pre- and post-workshop questionnaires. Eight persons completed the pre-workshop questionnaire only while three persons completed the post-workshop questionnaire only.

		Pre-workshop		Total
		Respond	Not respond	
Post-workshop	Respond	38	3	41
	Not respond	8		8
Total		46	3	49

Post-Q1. Scores of the workshop



Overall, nearly all respondents were satisfied with the workshop, except one respondent was very dissatisfied with topics covered, one respondent was very dissatisfied with the venue and one respondent was dissatisfied with the catering.

Post-Q2. How likely are you to attend a similar event in the future?

	No.	
Extremely likely	21	60%
Quite likely	14	40%
Total	35	100%

Post-Q3. Do you feel there was too much, too little, or the right amount of time for Q&A and discussion?

	No.	
Right amount	33	94%
Too little	1	3%
Too much	1	3%
Total	35	100%

Post-Q4. What three topics did you find the most interesting from the speaker presentations?

Topics reported to be the most interesting were:

1. Nutrition and hydration
2. Taking control of metabolic disorders with good food choices
3. Effect of nutrition on learning & New age leadership to nurture a healthy world

	First interesting topic	Second interesting topic	Third interesting topic	Total
<i>Nutrition & hydration</i>	19	8	1	28
<i>Taking control of metabolic disorders with good food choices</i>	1	9	8	18
<i>Effect of nutrition on learning</i>	5	8	2	15
<i>New age leadership to nurture a healthy world</i>	1	2	12	15
Environment		1	4	5
Sustainability development	4		1	5
Nutrition, literacy & health	1	1	2	4
Food & behaviour		2	1	3
Diet & diabetes		1	1	2
Issues of food & faith		1	1	2
Literacy, multilingualism & learning skills	1	1		2
Community nutrition	1			1
Diabetes & prevention			1	1
Food habits			1	1
How modern life change our health	1			1
Metabolic & nutritional diseases	1			1
Overall picture of tuberculosis		1		1
Physical activities			1	1
Religion & psychology		1		1
All of them	1	1	1	
Missing	13	12	12	
Total	49	49	49	

Post-Q5. What topics would you find useful to be included at future similar events?

	No.
<i>New age leadership to nurture a healthy world</i>	4

Teaching kitchen	4
Taking control of metabolic disorders with good food choices	3
Effect of nutrition on learning	3
Capability approach, interface with energy & water	2
Metabolic disorder	2
Nutritional value of food	2
Behaviour & metabolism	1
Child nutrition & health	1
Child psychology	1
Collective actions	1
Different food and their effects on human body	1
Effects of nutrition on health	1
Enhancing therapeutic effect of food by cooking methods	1
Hydration	1
National nutrition policy	1
Scope for nutrition based research opportunities for medical doctors & students	1
Therapeutic diet	1
All of them	3
Missing	15
Total	49

Post-Q6. What were you top three learnings from the workshop?

	First top learning	Second top learning	Third top learning	Total
Nutrition & hydration	8	12	1	21
Taking control of metabolic disorders with good food choices	4	3	3	10
New age leadership to nurture a healthy world	3	2	5	10
Kitchen practice	5	1	1	7
Diet & diabetes	1	2	1	4
Effect of nutrition on learning & employment	1	2	1	4
Food habits	1		2	3
Literacy, multilingualism & learning skills	2		1	3
Participation	1		2	3
Community kitchen			2	2
Community nutrition	1	1		2
Food & faith		1	1	2
Low cost nutrition food	1	1		2
Motivation	1	1		2
Nutrition education		1	1	2
Sustainable development	1		1	2
Teaching kitchen		1	1	2
Capacity building determinants			1	1
Child health			1	1

Communication			1	1
Concern about the society	1			1
Control obesity		1		1
Daily activities indirectly affect health			1	1
Empowerment	1			1
Enriching myself		1		1
Fats and its effect on body cell		1		1
Future role of a doctor to modify medical practice based on nutrition			1	1
Growth & nutrition			1	1
Health & education		1		1
Holistic approach		1		1
Inequality			1	1
Inspiration	1			1
Issue of food faith			1	1
Knowledge about child's development during pregnancy	1			1
Lifestyle management			1	1
Lot of work being done in society		1		1
Pre-birth to 100 days are most important period		1		1
Role of doctors in building community leadership in nutrition		1		1
Self-awareness	1			1
Sharing the knowledge	1			1
Taking control of metabolic disorders			1	1
Water hygiene		1		1
Water is a macro nutrient	1			1
Missing	12	12	16	
Total	49	33	49	

Post-Q7. Where did you hear about the workshop?

	No.	
Through colleagues and friends	7	14%
Through workplace	6	12%
Through e-mail	5	10%
From IWC	4	8%
Through Remedy Clinic	4	8%
From NNEdPro	3	6%
From RCSG	1	2%
Membership	1	2%
Through Nutridiet	1	2%
Through AMRI	1	2%
Through letter	1	2%
Word of mouth	1	2%
Missing	14	
Total	49	100%

Post-Q8. Other

Over half of respondents (57%) would like to contribute to the Teaching Kitchen Project in the future and like to receive communication (e.g., newsletter, event news) from NNEdPro.

	Contribute to Teaching Kitchen	Receive communication
Yes	28	28
No	2	
Missing	19	21
Total	49	49

Post-Q9. Comments/Feedback/Suggestions

23 respondents gave comments on the workshop.

	No.
Informative	6
Excellent	3
Learned a lot	2
Want to take part in the research project	2
Excellent sustainability topic	1
Keep up the good initiatives	1
Learned a lot and will try to implement the new knowledge	1
More programmes	1
Not enough information	1
Satisfactory	1
Teaching kitchen is very good for health	1
Try to stick on timetable in future	1
Very stimulating and interesting	1
Very well organised	1
No comment	26
Total	49