Using formative research to develop phone messages for the prevention and control of diabetes in rural Bangladesh

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Background: The Bangladesh D-Magic Trial: Diabetes Mellitus Action through Groups or Information for better Control

- Diabetes affects an estimated 20-30% of the adult population either as intermediate hyperglycaemia or full T2DM.
- D-Magic is a randomised cluster control trial that aims to test the effectiveness of interventions to improve the detection, management and control of diabetes in rural Bangladesh (Faridpur).
- 96 villages, 46000 adults
- Qualitative and quantitative research used throughout the trial: formative, process evaluation and impact evaluation.
Formative Research and key considerations

• The **overall aim** of the formative research is to *inform the development of our interventions and develop a hypothesis about our intervention that may enable behaviour change.*

• 16 semi-structured interviews and 9 FGDs with diabetics, non-diabetics and healthcare professionals.

• Data coded and analysed by identifying **enablers** and **barriers** for diet, exercise, smoking, stress/tension and care seeking.

• Have a wide target group: women, men, diabetics/non-diabetics, all ages over 30 (everyone)

• Ideally people will talk about and share the messages, therefore the messages need to be informative and entertaining to a range of people
Using formative research to develop voice messages

- Step 1: Breakdown of outcomes
- Step 2: Context/underlying considerations from formative research
- Step 3: Identify and list enablers
- Step 4: Identify and list barriers
- Step 5: Divide enablers and barriers according to the COM-B model
- Step 6: Use to guide the content of voice messages
- Step 7: Package messages
Example: developing messages for diet

**Step 1:** Outcomes: Reduce sugar and fats, regular meals with less snacking, reasonable portion sizes.

**Step 2:** Context: formative research shows: women cook, men buy food, decision making varies, ‘home cooked’ food valued, gendered food habits, specific dietary advice given to diabetics
“He told me to walk and prohibited taking sweets. He also told me to eat rice once a day and take ruti two times a day. He also suggested taking less rice. I am following the rules like that.” Diabetic female

“In a diabetic family, to control diabetics, their food must be monitored.”
Diabetic male

“We have five members in our family. Everyone have ruti (bread) at night.... It is easy for me to eat ruti (bread) if everyone do that but troublesome for only one.” Diabetic female

“Sometimes brother of my daughter in law’s came here (at her home) to visit with sweets. Just because of me, my son asked him to bring fruits not any kind of sweetmeat.” Diabetic female
“See, in a gathering, if I refuse the offered dishes it will not be pleasing.” Male non-diabetic

“Our relatives live in this village too. Whenever guests arrive, we have to bring snacks from shop” Female diabetic

“If you give them dietary advice they would not be able to manage all the things because they have to consider other family members too.” Health worker

“Instead of using less oil she gives much oil and do so she is ruining me” Diabetic male

“I do not care which would be less healthful or more healthful and I do whatever I usually do and I do not control or change anything” Female diabetic

“Now think as a man like him, how can he survive with only three pieces of ruti?” Male diabetic

My daughter, son and my husband always try to hide those sweetmeats. But I cannot resist….I just love sweets and beef” Female diabetic
Summary: barriers and enablers

- Knowledge: a basic level of knowledge, not detailed knowledge
- Medical advice: valued
- Diagnosis of diabetes
- Family: cooking, shopping, eating together
- Family: support
- Hospitality
- Social occasions/habits
- Taste, feelings, emotions
- “Living for now”
Step 5: COM-B and Message content

**Capability:**
- Knowledge
- Dr’s advice
- Family encouragement

**Motivation:**
- Diagnosis
- Personal motivation
- Family
- Taste and preference
- Feeling hungry/unwell
- Living for now

**Opportunity:**
- Family: cooking, shopping
- Hospitality/social expectations
- Availability of foods

**Types of messages to encourage behaviour change:**
- Specific information regarding how much people should eat (and how this may vary) for diabetics and non-diabetics
- Examples of alternative snacks/healthy food
- Emphasise role of family and friends in encouraging positive eating habits
- Encourage men to shop for healthy foods and women to cook with less oil/sugar
- Examples of temptations inside and outside the home; guests visiting, social occasions, being in the market; and ways of addressing it
- Acknowledging the preference for certain foods
- Stressing how eating “healthy” food will make one feel better in the long-term
Next steps

• Complete analysis
• Develop table with content of messages for: diet, exercise, smoking, stress and care-seeking targeting diabetics and non-diabetics in rural Bangladesh
• Work with script-writers to develop voice messages that will be accessible to all: conversations, consultations, case studies
• Produce and start sending messages
Thank you! Any Questions?