Supplementary Material 6: Coding Framework Community Based Strategies

- **Intervention characteristics**
  - Relative advantage
    - Reduction of patient load at health facility
      - **Ndou, 2013:** "An important benefit of the programme was the reduction in the patient load at the clinic 'It is good programme because our clinics are flooded with patients. Some of the patients really don't need to be at the clinic. (KII)'"
  - Design Quality & Packaging
    - Frequency of and modalities of contacts
      - **Baumann, 2015**: "The most frequent problems [of the intervention] reported included not talking often enough"
      - **Flood, 2017**: "Home-visit intensity and identification of patients who would benefit from periodic educational 'booster doses' have emerged as important research and QI areas for our institution." / "despite formative research on the feasibility of group education, actual attendance at group sessions was very low. In May 2014, therefore, we re-launched our education intervention as a home-visit program"
    - Flexible arrangements
      - **DePue, 2013**: "The flexibility of scheduling individual visits was clearly important to achieving the high dose, as group visits were utilized less often."
      - **Shen, 2017:** "the time and location arrangement of the programme were much more flexible than they had expected."
    - Provision of appropriate support material
      - **Abdel-All, 2018**: "They [CHWs] reported that the flip charts and the pictures were useful in educating community members about risk factors for cardiovascular disease and adopting a healthy lifestyle"
      - **DePue, 2013:** "it was more difficult for CHWs to keep track of multiple algorithm factors. A simpler algorithm would be preferable for outreach work by CHWs"
      - **Fisher, 2012**: "the prepaid mobile phone network linking participants to each other also linked them to nurses in the health center" / "The development of the bilingual diabetes self-care training booklet encouraged continued activities. For example, one woman reported that possessing this booklet had made her a village resource: People with diabetes visited her to gain information from it"
      - **Huang, 2014:** "Some patients thought that the calendar we designed could be a useful tool to assist them in increasing their adherence with treatment"
- **Outer setting**
  - Patient Needs & Resources
    - Integration of activities in daily lives
      - **Abel-All, 2018:** "Some of the challenges that were mentioned by the ASHAs in the interviews included a low response from community members, especially housewives and farmers who they perceived did not have sufficient time to attend group meetings."
      - **Peacock, 2020**: "Understanding the daily life of villagers promoted increased program accessibility and uptake of health promotion activities through provision of in-home outreach by a CHW"
      - **Shen, 2017**: "some participants worried that the programme might require extensive time and that their normal lives might be disturbed [...] A variety of activities were naturally integrated into daily lives, such as grocery shopping, morning exercise in the residency garden, and walking grandkids to school"
    - Patient's resources to engage with intervention activities
      - **Abdel-All, 2018**: "There was also concern about a lack of facilities for transportation to the meeting venue"
    - Use of local language
      - **Baumann, 2015**: "materials used was written in English, the educational sessions were conducted in both English and Luganda. Even with these efforts, not everyone was reached since some spoke a tribal language other than Luganda and little English"
      - **Fisher, 2012**: "Uganda illustrates the challenge involved in conducting a project in a setting with multiple languages. Training for peer support champions was in English, so the champions had to be able to read and speak English. However, partners quickly requested that the facilitator at their training sessions use Luganda, the dominant language in the region. Because not all participants spoke Luganda, the project had to provide interpreters for Acholi or Swahili speakers, too. "
      - **Flood, 2017**: "Most patients expressed preference for the local Mayan language over Spanish "
    - Facilitation of access to medicines
      - **Abdell-All, 2018**: "There was also concern about [...] failure to supply medicines during the community meetings"
      - **Amarchand, 2015**: "Some of the problems reported were lack of medicines at subcentres (these were made available at PHCs), as only richer people could go to a PHC or Ballabgarh, owing to poor transport for regular treatment "
      - **Rahmawati, 2015**: "this study identified a gap between what elderly members wanted and what the IHSP-Elderly program could provide. Members preferred a simpler care pathway in which the CHWs could provide easier access to hypertension treatment"
  - External Policy & Incentives
    - Remuneration policy and status of health workers
      - **Abdel-All, 2018**: "The topic of insufficient remuneration was raised by several ASHAs who reported that the incentives provided by the National Rural Health Mission were usually delayed. They reported a preference to be part of the health system and receive a regular salary"
    - Free access to health care
      - **Rahmawati, 2015**: "Participation in the IHSP-Elderly program was also driven by the free access to health care. Members of IHSP-Elderly program were highly enthusiastic about having access to free blood pressure checks, regardless of who measured their blood pressure"
- **Inner setting**
  - Structural Characteristics
    - Health workers turnover
      - **DePue, 2013**: "Staff turnover of CHWs is common. Two of our CHW staff stayed throughout the trial, out of 8 hired and trained"
  - Networks & Communications
    - Coordination and communication policies
      - **Ndou, 2013**: "No regular meetings among the NGO, clinic staff, and district staff were held to discuss issues such as shortages of CHW equipment, or funding constraints to purchase new supplies" / "CHWs did not report their monthly clinical assessments of patients to the nurses. As a result, the information that was collected did not trigger an intervention for patients whose condition was not controlled"
  - Implementation Climate
    - Tension for change
      - **Huang, 2014**: "Both patients and their health care providers thought that new methods should be developed to serve the general population"
      - **Jafar, 2016:** "Stakeholders reported being supportive of the proposed intervention and considered it to be potentially useful"
    - Organizational incentives & reward
      - **Rahmawati, 2015:** "Being unpaid volunteers, they were motivated by intangible benefits, such as the appreciation of community leaders, the trust of the community health center and members of IHSP-Elderly program, and the ability to contribute to the wellness and happiness of the community"
    - Clarity of internal processes, roles and responsibilities
      - **Ndou, 2013**: "Lack of materials, a key to barrier effective functioning of the programme, was caused by [...] unclear procurement processes and responsibilities" / "The information collected by the CHW was reported to supervisors at the NGO, who did not see it as their responsibility to intervene should a patient have poor clinical outcomes. Clinic nurses did not regularly examine the CHW records. As a result, they did not identify, or take action to assist patients that required intervention or referral "
  - Readiness for Implementation
    - Leadership engagement
      - **Abdel--All, 2018**: "Some ASHAs also complained about the lack of supportive supervision and assistance from their line managers within the public health system"
      - **Rahmawati, 2015:** "The district health staff member emphasized the critical role of the IHSP-Elderly program in addressing hypertension in the community"
    - Access to knowledge & information - provision of appropriate training
      - **Abdel-All, 2018**: "training content was easy to understand and captured a wide range of relevant topics important for their job, including developing confidence in discussing hypertension within the community" / "ASHAs suggested the need for regular refresher training sessions" / "ASHAs appreciated the interactive training activities, which they reported had equipped them to understand real life scenarios and enabled them to overcome some of the challenges related to their new roles"
      - **Amarchand, 2015**: "They rated the training they received as appropriate and informative. However, as this area was new, they suggested retraining sessions every 2–3 months to reinforce information."
      - **Ndou, 2013**: "the condition [diabetes] was better managed among clinic patients [...] It may be due to insufficient training of CHW on assisting patients to manage diabetes"
    - Perceived increased workload
      - **Amarchand, 2015**: "They [health workers], therefore, felt that, rather than adding more workload on them, there should be a rationalization of their workload"
      - **do Valle Nascimento, 2017:** "Two CHAs remarked on the increased time required to implement these techniques, although this was not necessarily described as a negative change by one CHA"
    - Availability and quality of medical supply
      - **Ndou, 2013**: "CHWs and NGO staff complained of shortages of glucose strips, which are likely to have hindered monthly monitoring of blood sugar levels, and efforts at self-management by patients." / "Lack of materials, a key to barrier effective functioning of the programme, was caused by a lack of dedicated funding and unclear procurement processes and responsibilities"
      - **Rahmawati, 2015**: "the IHSP-Elderly program had only 1 properly functioning aneroid sphygmomanometer to measure blood pressure. This device was purchased in 2007 and had not been recalibrated in 6 years. There was no funding to purchase a new device"
- **Chacteristics of individuals**
  - Knowledge & Beliefs about the Intervention
    - Patient's attitude towards referrral
      - **DePue, 2013**: "Among all the urgent care referrals, 27% refused to go for care. Participants often indicated they knew why their BG was high due to specific foods consumed, they ran out of their medications, had an upcoming doctor visit, and/or wanted to avoid another co-pay. They generally trusted the CHWs to monitor the situation with extra visits"
  - Self-efficacy
    - Health workers' confidence in performing tasks
      - **Abdel-All, 2018**: "training content was easy to understand and captured a wide range of relevant topics important for their job, including developing confidence in discussing hypertension within the community "
      - **Rahmawati, 2015**: "only 1 CHW (female, 40 years old) was properly trained and had enough confidence to measure blood pressure; the other 2 CHWs did not feel as capable"
  - Individual Stage of Change
    - Health workers' willingness to gain knowledge and learn new skills
      - **Abdel-All, 2018:** "ASHAs appreciated the opportunity to learn new skills" / "The ASHAs were motivated and wanted to enhance their knowledge" / "the aspiration to learn new skills and gain knowledge helped improve motivation levels"
      - **do Valle Nascimento, 2017**: "CHAs were excited to learn new methods to inform their practice and enhance their skills" / "Other CHAs echoed this interest in learning new skills by describing the training as providing "a new vision", "innovations that bring to light new methods" and "an opportunity to be acting in an organized manner" "
  - Other Personal Attributes
    - Patient's education level
      - **DePue, 2013**: "Those receiving more than the mean intervention dose (74% of expected visits) had less education, after controlling for other factors"
    - Health workers' facilitation skills
      - **Rahmawati, 2015**: "The value of using CHW as speakers was their creativity in facilitating interactive discussions and encouraging elderly members to participate."
- **Process**
  - Engaging
    - Health workers behaviour: Confidentiality
      - **Ameh, 2017**: "However, some patients reported that HBCs [home-based carers] breached confidentiality by disclosing their clinical information to persons other than those entrusted with patient care and management."
    - Stakeholders' involvement and engagement with intervention
      - **Baumann, 2015**: "The most frequent problems reported included [...] not being able to contact their peer, being told what to do, and having a peer that was not motivated to change"
      - **Fisher, 2012**: "Instead of diluting the peer aspect of interventions, the involvement of professionals reduced peer supporters' anxiety about making mistakes and increased the projects' credibility"
      - **Shen, 2017**: "The opportunity to communicate with health professionals in an easy and friendly manner was also mentioned by participants. Some said they felt closer to health professionals and more likely to discuss their ideas and decisions with health professionals"
    - External change agent: community leader involvment
      - **Peacock, 2020**: "Although people living with diabetes were hesitant to show their feet to physicians, they eagerly participated in foot assessments when supported by their religious leader and delivered by a respected CHW"