ARE SMS-MESSAGES A WAY FORWARD TO SPREAD HEALTH INFORMATION?

By Erik Jørs(1,2), Aggrey Atuhaire(3), Katia Buch Hærvig(4), Lene Kierkegaard(4), Majbrit Mølgaard Nielsen(4), Mercy Wanyana(5), Bernadette Mirembe(5), Charles Okorimong(5), and Deogratias Sekimpi(3).
1. Danish NGO Dialogos
2. Danish NGO ICOEPH
3. Ugandan NGO UNACOH
4. Copenhagen University, Public Health
5. Makerere University, Environmental Health

An exciting experiment just took place in the Pesticide-Health-Environment Project run by UNACOH and Dialogos/ICOEPH in Uganda. SMS-messages with information on 'pesticides and reproductive health' were sent to 70 farmers and later evaluated through follow up questionnaires and focus group discussions revealing surprisingly positive results.

The PHE-project
The project financed by the PR-NGO from Denmark is a three year project with the objective to 'reduce negative health effects of pesticides in humans and prevent pesticide pollution of environment', by 1. Improving prevention, diagnosis and treatment of pesticide poisonings, 2. Promoting Integrated Pest Management strategies among farmers and 3. Raising awareness in the population and advocating for a proper control to minimize possible pesticide dangers to consumers and environment.
As we directly train only around 40 health care workers, 15 extension workers, 12 agrochemical dealers, and 40 farmers who will pass their knowledge on and become 'teachers of the general population' in the project areas, we also have strategies for a more widespread public information by articles in papers, radio programs and now this rather new initiative to spread health messages by sending SMS-messages.

The SMS experiment
Three Public Health students from Copenhagen University, together with three Environmental Health students from Makerere University and the project staff made a plan for the content of the messages and did send them through a telecommunication company to the farmers in Pallisa for a fourteen days period in February 2012. Before and after sending the messages a questionnaire was filled by 70 farmers, while 4 focus group discussions were conducted with the farmers to evaluate change in knowledge and awareness, if farmers found them useful, and explore how to improve and if to continue with SMS campaigns in the future? Farmers participating were both trained and untrained by the project.
The messages send out with an introductory slogan were:

1. Children are our future – Use boots and other personal protective equipment when handling pesticides to avoid poisoning yourself and to reduce risk of not being able to have children.
2. Children are our future – Change clothes and was them and yourself after using pesticides to avoid poisoning yourself and reduce the risk of not being able to have children.
3. Children are our future – Do not use pesticides when pregnant, it can lead to pesticide poisoning of the pregnant woman and lead to miscarriage.
4. Children are our future – Use pesticides in doses as recommended on the pesticide container or by the pesticide agro dealer as stronger mixtures can poison you and your unborn child.

5. Children are our future – Breastfeeding mothers should avoid exposure to pesticides it can poison them, enter their breast milk and lead to poisoning of the baby.
6. Children are our future – Do not bring children into a garden being sprayed with the pesticides or recently being sprayed with pesticides.
7. Children are our future – Keep pesticides out of reach and locked up to avoid poisoning of your children and the rest of your family by accident.

Each message send did cost 75 UGX equivalents to 0,025 euro.

Results

The SMS-messages were taken very positively by all farmers minus one, as they desire to get information of all kind and especially on agriculture which is their main means to survive. New learning took place when comparing knowledge before and after among participants, especially appreciated by the "not-trained" farmers, while for the trained IPM-farmers they gained less new knowledge but used the SMS-messages to remind them about what they already have been learning. The messages encouraged them to pass their knowledge on to the fellow farmers in 'the evening classes' as expressed by one, and even share it in the church as told by another. The farmers were able to recall the brief content of the messages like 'information about pregnancy and avoiding contact with pesticides', 'personal protection and good hygiene when spraying pesticides', 'keeping pesticides locked up' etc. It was clear that the SMS-information was being enriched by farmers' own knowledge, when sharing it with fellow farmers and neighbours in discussions in the villages. This poses a possible danger of creating 'false knowledge' on hazards of pesticide as not all the farmers' knowledge is correct.

The constraints were various e.g. lack of means of charging the phone in villages; thus so often messages were received with delays, lack of knowledge to open the SMS-messages in the 'inbox', inability to read, lack of money for buying 'airtime', fear that when the message is opened some money will be deducted from their account.

The messages were sent in English as well as the local language 'Ateso' which was good as many cannot read English. The farmers were all requesting the messages to be continued and then on fixed week days so they can be alert to receive them, and the untrained farmers requested more information to come along together with the messages like posters, radio programs expanding on the subjects and meetings to discuss the contents of the messages.

Conclusions

The result of this study has surprised us as we thought SMS-messages could mainly be used as reminders or in emergency situations to alert people. Now it is our opinion that SMS-messages can be used to spread health messages as they are taken seriously, are read and discussed by the farmers, their families and neighbours. At the same time they can hardly stand alone due to their limited content, and should be followed up by meetings and discussions in the villages organised by trained farmers and agricultural extension workers, and radio programs to expand on the subjects raised in the messages, and posters. An idea could be to send a weekly message to participants in the project to remind them about passing on acquired knowledge and creating discussions.
This is in contrast to the way SMS messages have normally been used for reminding people on e.g. 'meetings to go to', 'pregnancy control', 'treatments to take', 'emergencies' all of them not needing any specific follow up. The SMS messages seems to have still some power of attraction as it is

relatively new to the Pallisa District society, where an estimated more than 75% of the farming families have a mobile phone.
Given the positive response from the farmers, SMS-messaging is certainly something the PHE-project will include in its activities in the future.

Foto 1: Students interviewing male farmer

Foto 2: Students interviewing female farmer

Foto 3: Female farmer receiving SMS-message

Foto 4: Focus group discussion in female group