## Intervention

## Activities (how this was done and supported)

## Evaluation (what was learned)

Entomological surveys showed no signifi-

cant impact by HE+ (reduction rates were

1%-5% between pre- and post-campaigns)

Health education + House inspection campaign by community volunteers (HE+)

- Four rounds of the HE+ campaign were carried out in the whole city to:
- develop recognition of aquatic stages and explain methods of source reduction (378 female volunteers from the Red Crescent, 120 male volunteers from community guards).
- address control of key productive containers.
- The following activities were carried out.
- Pamphlets were distributed to households (34 000 in total).
- Daily radio messages were broadcast.
- Written messages and video clips were advertised on the streets.
- Lectures of HE were conducted in 28 social and sport clubs.

- Shortened message was delivered to households (drinking containers instead of water storage containers were targeted).
- Pamphlets were delivered to households without training household member (only 20%–30% of houses checked after the campaigns).

Check on community volun-

- About 10%–30% of the houses were locked during the campaign (residents at work or away).
- The radio broadcast had low audibility in the city (5/90 persons asked).

House inspection by health workers

- Routine programme of inspection by 80 health workers was done according to a coverage timetable and in areas of reported dengue cases (Table 1).
- Good performance of health workers was assured by:
- having 2 supervisors for each 15–25 health workers
- sending filtrated specimens to the national health laboratory.
- Entomological surveys showed significant reduction impact in targeted area (60%–70%).

Space spraying

- Rounds of space spraying were carried out (each for 7 days) (Table 1).
- Indoor and outdoor thermal fogging was carried out daily.
- Permethrin (Agniban 25% EC) was applied in a dosage 0.11 mg/L.
- Check supervision for space spraying campaign operations showed the following.
- Many windows/doors were locked during the ultra-low-volume spraying.
  This was addressed using horn loudspeakers in the targeted districts.
- Maintenance problems regularly caused fogging machines to be out of order.
- Neither the efficacy of permethrin nor susceptibility of Aedes were tested before operations.

Larviciding

- Temephos (Abate) was applied in outdoor containers. Main outdoor containers were water drums of steam diesel engines.
- Aedes mosquito rarely breeds outdoors in Port Sudan and Culex spp. predominate outdoor containers.