We conducted a study to assess the usefulness mobile phone-based communication network established between village health volunteers (VHVs) and their supervisors in a rural district of Laos, between 2009 and 2010. Mobile phones with pre-paid cards were distributed to 154 VHVs and 11 health professionals who supervise VHVs. VHVs were told to feel free to use a phone for their work. During the six months after the phone distribution, VHVs made 364 calls to supervisors: most common purpose for the calls was regular reporting (54.1%), followed by seeking advice on case management, vitamin A distribution, and delivery (20.6%). Supervisors made 478 calls to VHVs mainly for requesting regular report (44.6%) and informing in advance the schedules of a meeting, training, and outreach activity such as immunization and health check-up (32.2%). Compared to one month before the phone distribution, submission of regular report for vital event surveillance significantly increased from 51.0% to 80.6% (p=0.04). The district-wide, mobile phone communication network facilitated regular reporting, seeking advice, and informing schedule of various activities. The improved communication had potential to translate into better health outcomes among community people.