R.E. Roush. eNeighbor: a preventive system monitoring residents' behavior for health services. Gerontechnology 2009;8(2):120; doi: 10.4017/gt.2009.08.02.013.00 Over the past 15 years, there has been much interest in research on personal emergency response services, especially when indicated by health or social circumstances[1] and on technology assisting elders to live independently in their places of residence as long as possible[2]. Remote monitoring systems have led to fewer and shorter hospital days and to lower overall costs[3]. First generation electronic activities of daily living reporting systems (e-ADLRS) were developed to gather data unobtrusively on the well-being of elders living alone and to send reports to clients. A second-generation e-ADLRS that has been developed by Healthsense builds on these experiences and brings a broader range of services to users than heretofore. Developed with a peer-reviewed grant from the US National Institutes of Health, Healthsense has now entered into studies in selected sites. **Technical description** eNeighbor employs strategically placed sensors to monitor residents daily activities: e.g., tilt sensors on medicine boxes monitor medication usage; motion detectors on walls detect movement within rooms; contact sensors on kitchen cupboards and refrigerator doors monitor whether the resident is eating regularly; toilet usage is also monitored; pressure sensors on beds detect when residents get in or out of bed; and home-or-away sensors detect when a resident leaves and returns (*Figure 1*). Using algorithms to predict residents' behavior based on their individual habits, the technology's operating system analyzes correlated data from the sensors and issues an alert when results indicate help is needed. **User studies** The efficacy of eNeighbor is being tested in a two-year study at Quinnipiac University to determine whether 34 monitored long term care residents remain independent longer, delay hospital and nursing home admission, and attend better to their own basic needs than a comparable group of 34 nonusers[4]. A related study on eNeighbor revealed that users and their caregivers held a higher sense of security with the system in place than nonusers[5].

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Ashlar Village - Smart Apartment Sensor Placements

Figure 1. Schema of sensor placement in a typical apartment in the study site