

Decision Systems, Inc.

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DECISION SYSTEMS Through its product development, Decision Systems has responded to two national goals. First, a critical goal of Healthy People 2000 and Healthy People 2010 is to improve the adherence of people to medical regimens (e.g., prescription medication adherence and medical appointment adherence). Second, in 1988 the United Nations General Assembly designated the 1990s as the Decade of Natural Disaster Reduction. The products developed by Decision Systems, using SBIR funding, address both of these goals.

HEALTH CARE With SBIR funding, Decision Systems developed and clinically validate **TeleMinder** a micro-computer-based automated telephone messaging system designed to improve patients' health care services. First, it is used to telephone and remind patients of a) upcoming appointments, b) preventive healthcare activities such as influenza vaccines, and c) cancer early detection tests. Second, it is used in health management to monitor and preemptively treat complications associated with: a) chronic illness, such as hypertension and diabetes, b) outpatient recovery after surgery, and c) adverse reactions to new medications. Finally, TeleMinder is used to automate lab results reporting.

DISASTER AND EMERGENCY MANAGEMENT A third Phase I SBIR Grant, called **Community Voice Mail for Routine and Disaster Services** was awarded to Decision Systems in 1992. The purpose of this grant was to develop a rapid response, high call-volume, automated voice messaging system called TeleMinder-MAPs. An important aspect of this system is that it displays a map of the community. Users outline areas on the map and then automatically telephone community members in these areas. TeleMinder-MAPs was designed for fire, police, and sheriffs' offices.

As an emergency fire and OES response tool, TeleMinder is designed to: a) notify and evacuate citizens prior to or during a disaster, b) monitor the status and provide instructions to large numbers of citizens during an emergency or disaster, c) coordinate follow up services after a disaster, and d) routinely monitor the well being of citizens who are homebound. As an emergency response tool in law enforcement, TeleMinder is designed to serve as a crime prevention and crime-solving tool. Law enforcement use it to notify residents and businesses of ongoing crimes such as bomb threats, shootings, and crime sprees in their area and to give them instructions to avoid becoming victims. TeleMinder-MAPs is used to "canvas" crime

affected areas and asks residents and business for help in apprehending criminals.

In routine, day-to-day use, TeleMinder is used by police departments to: a) provide community voice bulletin boards to answer frequently asked questions, b) automate staff briefings, c) maintain close communication with Neighborhood Watch Programs, and d) routinely phone senior citizens and shut-ins to make sure they are okay. District Attorneys Offices use it to contact and either confirm or cancel

scheduled court appearances of defendants, police, witnesses, and jurors. Fire departments routinely use TeleMinder to a) advise citizens of fire hazards, b) direct disposal of toxic materials, c) announce clean-up programs, and d) maintain O.E.S./volunteer personnel and equipment preparedness.

National Institutes of Health Awards

Community Voice Mail For Routine and Disaster Services (AG10659)