



Denver Public Health



HANDI

Hand-held Automated Notification for Drugs and Immunizations



A mobile data collection application developed for mass immunization and prophylaxis events and routine clinic operations

Key features include the ability to:

- Rapidly collect demographic information through scanning technology
- Facilitate intervention eligibility and contraindication assessment
- Capture standardized patient data
- Operate in a variety of network environments
- Securely transfer data to immunization registries and data repositories using HL7 standards

Overview

During a mass intervention, event specific information is downloaded onto the mobile device. There are three different workflows or “stations” which may be combined or separated based on personnel and throughput for patients during the intervention process:

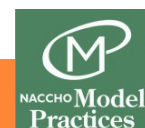
Station 1 – REGISTRATION: the healthcare worker scans each patient’s driver’s license (using magnetic stripe or 2-D barcode) and collects additional data such as phone number and health insurance information. A barcode with the patient’s unique identifier is printed and given to the patient for presentation at the next stations.

Station 2 – INTERVIEW/CONTRAINDICATION: the patient’s barcode sticker is scanned, and the patient is asked customizable health questions specific to the intervention.

Station 3 – DOCUMENTATION: the patient’s barcode sticker is scanned, and intervention specific data (e.g., manufacturer, lot number) are recorded, the dosage and site are determined if applicable, and the vaccine or drug is given. A card with vaccine or drug information is provided to the patient.

After the station-specific workflow is completed, data are saved on the device and transferred to the application server either real-time or when a connection is established. The server aggregates the data from each station using the unique id, and the complete patient record is securely transferred to designated databases or registries (e.g., state immunization registry).

Figure 1 on Page 2 shows the HANDI components and workflows.



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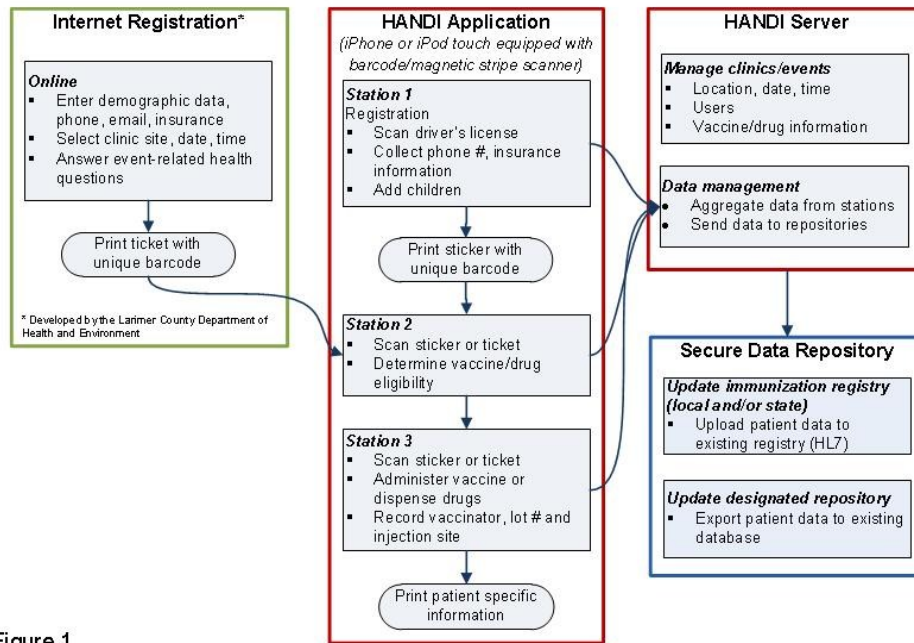


Figure 1

Internet Registration (optional)—In collaboration with the Larimer County (CO) Department of Public Health and Environment, HANDI interfaces with Larimer County's Public Health Event Web Registration (PHEWR) product. Patients can use PHEWR to register online in advance of an event, and PHEWR prints a barcoded ticket for scanning by HANDI. Registering online allows the patient to skip the demographic data collection step in the HANDI application. See <http://phethos.org/phewr-development.html> for more information.

Hardware Requirements

- Apple iPod touch or iPhone
- Magnetic stripe/barcode scanner (manufacturers: Infinite Peripherals, Honeywell)
- Server running Windows Server 2000 (or newer) or XP Pro, IIS 6 (or newer), SQL Server or SQL Server Express
- Mobile printer (optional)
- Wi-Fi access point (or existing network)

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