Life365®

**Case Studies
Efficacy in RPM**

**FROM HEALTH SYSTEMS – TO HOME HEALTH:
A History of Improving Outcomes with Remote Care**

Background

The Life365 team has been pioneers and influencers in Remote Patient Monitoring (RPM) technology for over 15 years. The team's previous RPM start-up, MedApps, developed one of the first IoT solutions for healthcare, using cost-effective M2M cellular technology and cloud computing.

MedApps was acquired by Alere (now Abbott Labs), a global manufacturer of rapid point-of-care diagnostic tests. The company re-branded as an Alere Connected Health division, where the founders and team continued developing innovative solutions for remote health and chronic care management (CCM) at home.

Following are highlights from studies, demonstrating RPM efficacy across a range of disease states and use cases, throughout a ten-year period.

Cleveland Clinic

**Transforming the Chronic Disease Management Model
with Patient / Physician Connectivity**

Cleveland Clinic and Microsoft partnered in a pilot to help manage three common chronic conditions: Diabetes (67 patients), Hypertension (172 patients), CHF (16 patients). Pilot results showed a reduction in rates of hospitalization and ER incidents.

Additional cost savings resulted from reducing expense in deploying and maintaining equipment. Results suggest enabling patients self-management of conditions promotes accountability and increases compliance. The MedApps' dedicated IoT solution promoted "ease of use" which was cited a major factor to improving and maintaining adherence – bettering the results of computer and cellphone based telehealth pilot. Key results by program include:

- **Diabetes** – Patients increased the number of days between appointments by 71%, indicating ability to manage remotely, without in-office visits for intervention.

- **Hypertension** – Patients successfully managed their blood pressure, increasing the number of days between appointments by 26%.

- **Congestive Heart Failure** – CHF patients visited doctors more often as changes in condition were detected earlier; decreasing the number of days between appointments by 27%. Providing physicians the ability to reliably monitor daily weight, blood pressure, and activity levels, care teams increased the timeliness of physician-directed interventions, potentially circumventing more serious, and expensive issues.

MERIDIAN HEALTH

Using RPM to Improve CHF Readmission Rates

Meridian Health sought to improve their better than average CHF readmission rate in a pilot program to remotely track CHF patients during the critical 30 to 90 day period following discharge from acute care. From the field of potential patients, 29 used the MedApps system, and 52 declined participation. The program demonstrated significant results in reduced re-admissions rates, overall cost savings, increased patient compliance to therapy, and high patient satisfaction with the program.

- Participating, monitored CHF patients were 100% successful, with zero readmits in the first 30 days of discharge (vs. national average readmission rate of 27%

- After 60 days, the same group yielded just a 3% re-admit rate for CHF, and 6% readmission for 90 days

- Eligible CHF patients who declined to participate in the program showed a 63% re-admission rate)

- Overall readmission rates fell from 14.93% to 4.84% in less than 8 months

ADDITIONAL PROGRAM(S) INFORMATION:

**Connected Solutions
& Services Provided:**
- OEM Bluetooth Medical Devices
- MA-A Connected Cellular Hubs
- Clinical Systems Integration
- MA-A Clinical Portal
- Launch Training
- Tier 1 & 2 Program Support

PARTNERS HEALTHCARE™

Improving ability to self-manage chronic conditions at home improves outcomes

The Partners Healthcare (now Mass General Brigham) remote monitoring program used MedApps / Alere connected devices to integrate patient data (blood pressure, weight and glucose levels) directly to the Center's database and patients' EHR. Patients were also able to view their data through an online patient portal – which helped improve confidence in the ability to manage their conditions at home. Initial program results included:

- CHF monitoring reduced readmission rates by 50%

- Diabetes monitoring reduced A1C by an average of 1.5%

- 69% of hypertensive patients lowered / improved their high blood pressure levels with consistent monitoring

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Scaling remote care solutions across a larger patient population

VRI has provided in home care and safety management services for over 30 years. Founded as Valued Relationships, Inc., the company began as a provider of personal emergency response (PERS) solutions. As VRI's customer base grew, the company sought to build upon their PERS monitoring foundation and expand their services to include vitals monitoring in 2008, in order to address the needs of individuals with chronic conditions.

In a white paper on Remote Patient Monitoring and Telehealth, VRI indicated the following characteristics for other organizations looking to launch successful RPM programs :

• **User Friendly Solutions** – simple to use, economic, flexible technology.

• **High Human Touch** – especially during implementation, including on-site installation and training.

• **Alert Stratification** – ability to screen, filter and prioritize alerts allows Care Managers to react to actionable information and provide the right intervention as needed.

• **Efficiently accessible data** – including secure, user friendly web portals for clinicians / care managers; ability to integrate to other outside clinical systems, and optional patient portals.

VRI®
emergency response systems | vitals monitoring | medication management

Connected Care: Improving outcomes and reducing hospital admissions using RPM for in-home chronic care management

Ohio based, VRI utilized remote monitoring products and services provided by MedApps / Alere at Nurtur Health (now Envolve Health, a subsidiary on Centene) to help extend its growing home health program to monitor clients with chronic disease across the US.

In a 12-Month study, the VRI team implemented an in-home program using remote devices to capture blood pressure, blood oxygenation, blood sugars, and weight for individuals identified as high risk. Program participants included 390 Medicaid Members with a variety of chronic conditions including chronic heart failure (CHF), diabetes, hypertension and chronic obstructive pulmonary disease (COPD). Patients were supplied with a range one or more Bluetooth medical devices and a cellular enabled, IoT hub device to capture and transmit health data to the cloud.

Reduced admissions were demonstrated across the board:

- **53%** Lower heart related admissions
- **62%** Lower in diabetes admission
- **58%** reduction of all cause readmissions
- **55%** reduction of ER Visits

Saad Healthcare

Using RPM to engage high-risk diabetes patients

Saad Healthcare, a leader in home health care on the Mississippi / Alabama Gulf Coast, conducted diabetic trial with a total of 300 individuals identified as high risk. The program used a MedApps / Alere remote monitoring solution to connect, collect and transmit patient data to a clinical portal for review. The trial yielded significant favorable results in a majority of the population with improvements including:

- 86% of patients improved A1C or LDL levels
- 89% of patients with A1C>10 showed improved levels
- 68% of patients with A1C b/w 8-9.9 improved levels
- 75% of patients with A1C b/w 7-7.9 improved levels

ResCare
HomeCare Services

Proactive remote homecare program yields better patient health – leading to lower hospitalization

ResCare Homecare (now BrightSpring Health Services) implemented a remote patient monitoring program made up of 117 home care patients, focusing on diabetes patients, and monitoring a range of vital signs including: blood sugar levels, blood pressure, blood oxygenation, and weight. The program used used MedApps / Alere remote monitoring devices, and clinical portal to review data. The program produced improvements in a short time, including:

- 91% of patients improved their blood sugar levels over the average monitored period of 44.74 days
- Decrease in Hospital admission was achieved with re-hospitalization prevented in 85% of all patients.