Krish Compusoft Services

Developed end-to-end digitalization platform for health survey for Bill and Melinda Gates-funded Foundation

Case Study

Industry:	Healthcare
Technology:	PHP
Country:	Pakistan

Client Profile:

The Aman Foundation is a social enterprise focused on catalyzing impactful solutions in Health and Education in Pakistan through direct interventions, convening powerful partnerships, and advocating on behalf of the underserved people of Pakistan. The company is co-funded by Bill and Melinda gates foundation for its healthcare initiatives towards the society

Challenges:

The main aim of the project was disease surveillance and epidemiology study in communities of rural areas through health workers. Bill and Melinda Gates Foundation was funding the program to support a healthier life in the unreachable localities of Pakistan. Here are the major challenges of the project.

- As the household allocation in the earlier system was done manually, it was difficult to track the records.
- One single step needs to be revised three times in the earlier system i.e. for data entry, by the backend people, and then the main server entry.
- It was a challenge to spot the gelocation of the healthcare workers because the system was completely manual and based on paper mode.
- Health worker's tracking and management was a challenging task.
- As the data was collected manually, it was a challenge to get the exact analytics for further healthcare schemes.
- Providing training to health workers was a challenge.
- It was a challenge to manage project on manual mode.

Solution:

Aman Foundation is aimed provide required medical aid to the underprivileged people of the society, for which it was looking for a survey data that can aid them in making a roadmap for the solution.

The foundation's actual objective was to bridge the gap between diagnosis and treatment and reduce the burden of diseases and health challenges for the underserved community.

Their approach was based on door-door-door visits, health screenings, referrals of cases to appropriate health care facilities, and provision of supplies and services. While they approached KCS for their health survey, we provide these solutions to meet their requirements.

- We developed a health survey end-to-end digitalization platform using PHP.
- Our solution included digital household allocation.
- We made a system where there was entry of device allotted to every health-worker. This digitalization of device helped them in tracking the geo-location of health workers in real-time.
- GPS tracking of the disease was also made simple through the app that further helped in getting a systematic data and plan for health programs to the affected area accordingly. For instance, if there are more patients of Diabetes in location A then Aman Foundation can work on a plan for the disease elimination and treatment.
- With the device project scheduling and allocation became easy for the foundation.
- The admin or manager can track the geo-location of the worker easily through the system that made management easy for them.
- The application is divided into three parts mobile version (for health nurse and workers), web version (for health nurse and workers), and web central version (for project administrator).
- The health workers can easily collect the data through the tablet provided to them and can share it with the administrators.
- As the client was looking for a solution for the rural area, we made an application that can even work offline.
- The health workers collect and register the data offline and once they come to the sync area the data is created with an analytics report.
- The health surveys through the application enable easy data collection for the community health workers which can be further used for governance of the community health program.
- We developed a training module in the application that could very easily train the health workers as how to use the application. With this, at the end of the training, we could get the report as to how many workers have been trained so far. So, the management could have data of health-workers training in real-time.
- We included as far as 20 surveys in the application which were Mother and child tracking form, medical dispense form, acute respiratory infection, cancer, diabetes, diarrhea, hepatitis, hypertension, stroke & heart disease, injury/accident/violence, mental health, tuberculosis, measles, child detail, reproductive health male, family planning, STD/SITs, ear infection, substance abuse, and throat infection.

KCS Approach

Upon understanding the client's requirement to reach the underprivileged for health survey, we suggested them to get an application for the health survey. As per the requirement, we made an application with different modules to capture the survey reports. We divided the application into three parts mobile, web, and web central for the different user bases like nurses, healthcare workers, and system administration.

Outcome

The door to door digital health survey through our application has brought some great results.

- The initiative empowered underprivileged citizens, especially women to participate in community welfare activities and access to medical attention for key health issues.
- The crucial gap between diagnosis and treatment was bridged through the application that ensured real-time data collection and analytics.
- The health workers community can now make easy decisions at the patient's end (provided a step-by-step clinical management guide to improve quality of care)
- The data collection process was made easy.
- Real-time surveillance, epidemic management, and governance of the community health program became easy.
- Treatment compliance was improved.
- The application aided in health promotion and disease prevention.
- GPS tracking of health-workers made it easy to identify the geo location of a disease.
- The digital household allocation amplified the process.

Tech Stack

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