Sehha Virtual Care Center (Ministry of Health)

Case Study

Cura

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Cura joined the Ministry of Health (MOH) to co-create an enhanced patient journey that focuses on enabling the kingdom's mass public to access clinical-based-consultations virtually and introduce a new medium for a doctor-patient communications seamlessly.

Background

Ministry of Health (MOH) – department of medical consultations in conjunction with 937 services which focuses on call-center-based model for accessing and inquiring about medical conditions for the mass public.

The vice minister of health as the main sponsor of the initiative has worked with Cura hand-in-hand to ensure the strategic positioning of enabling the access to care through virtual consultations through integrating the virtual consultation service into the IT ecosystem of the ministry.

Cura and the ministry of health had a successful national wide implementation of the virtual consultation's initiative through its departments of medical consultations and 937 operationally; expanding the scope of call centers into enabling end-to-end virtual consultations ecosystem into a line of service.

Problem Statement

Medical consultations call centers is used widely in the kingdom of Saudi Arabia to access MOH doctors and inquire about various patient questions. This has been an integrated solution within the ministry of health to ensure it has a line of communications between the mass public and attending doctors.

The ministry's operating model had a dedicated center receiving all patient calls in Riyadh, and routed to other doctors and centers. This operating model was in nature causing a throttling challenge due to no proper operational routing mechanism between patients and doctors

Some of the core challenges laid in as follows:

**Solving for proper doctors' utilization across MOH call centers**

At the assessment finding part of the project, the existing state of the medical consultation department center in Riyadh had 30 attending doctors operating to receive calls and inquiries from the mass public. The center was unable to route requests that are incoming from other regions to their region's attending doctors. This left a gap of the resource's utilization in all centers, Riyadh region was high in utilization, while all other regions did not have any requests coming from the main center. The low hanging fruit challenge and solution was to enhance the call center system but would still leave gap in the overall operational architecture of the call center design.

Capacity planning and proper request routing

Due to the design of the center's operations, the center was only entertaining the incoming requests without planning for a clinically designed operations to oversee the patient's history,

properly allocate a follow-up session, or even plan the doctor's utilization based on their performance. The correct approach to this complexity was to enhance the operational communication procedures, depend on a platform to enhance transparency, and build a hierarchy in which the patient inflow can be governed.

Through continuous improvement of the program, the call centers increased from 5 centers in the initial stages to reaching a total of 21 centers across the kingdom, all of them serving patients through Sehha.
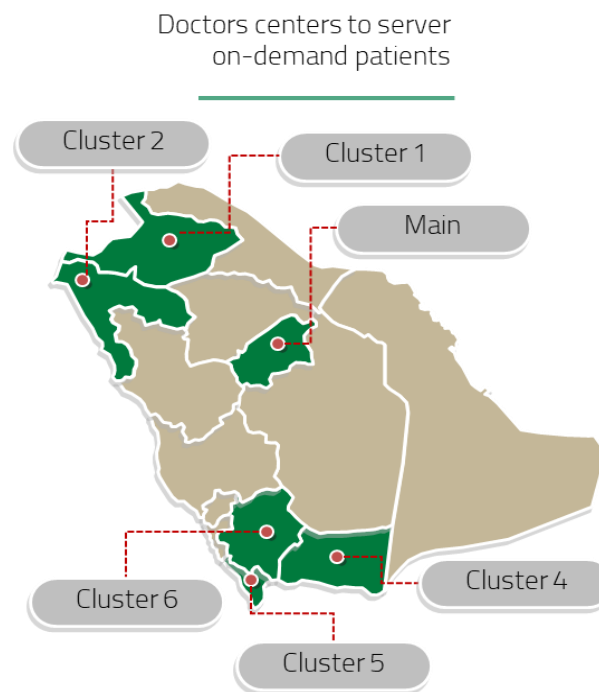
Figure 1. Doctors centers increased from 5 to 21 due high-demand

Capitalizing on the clinical workflows and adopt state-of-the-art technologies

As the root cause of the problem emerged, there was no proper tool kit for the doctors to better communicate on the diagnosis of the patients, no streamlined process to exchange documents and share reports, and a very poor overall experience for the mass public.

The technology adoption from the public was notably one of the major factors the center aimed to capitalize on the initiatives as the major density of the population were between the age 25 to 54 which amounts to more than 60% of the total population. Thus, enabling the center to focus on advancing its processes through technology changes.

Managing patients' complaints – pre and post consultations and how to communicate back to patients through a centralized medium

One of the main responsibilities of the center is laid in managing complaints incoming from the public mass. The medical consultations were mostly part of those complaints, layered in a pre and

post consultation service. This mechanism was difficult to manage without a proper infrastructure and a platform in which the doctor can easily manage the consultation sessions and requests.

This process and mechanism were an indicator that the replication of such a process needed to be capture in a platform setting.

Solution and Service Delivery

In essence to enabling the mass public to access care through a robust platform, Sehha became the one-stop-shop to access virtual consultations. This platform has set a goal for the project to replicate all the existing manual processes in an enhanced digital manner. This mechanism allowed the team to create the technical infrastructure required to operate all contact centers as well as solving the unneeded operational gap.

Greenfield technical deployment
at the initial deployment of the project, the scope included proposing the physical architecture in which the platform will run on. This exercise was done to ensure proper system coherence in which it can scale to rollout various products and services.
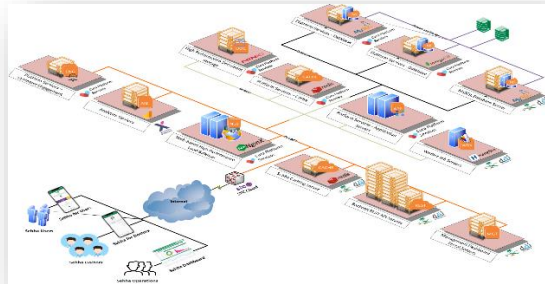
Figure 2. platform physical architecture

This architecture runs to ensure proper delivery of the services that included simple and secure communications APIs and SDKs for the organization and which ensures enables them to build secure real-time messaging, push notification services, document storage services, live video services, live audio services, and contact center workflow routing.

Scaling operations of the contact center

Through the program proper governance model, the platform allowed for the call centers to co-operate with a sequential geo-graphical based process. Enabling patients from each geographical location to be connected with doctors from the same exact region. This has allowed the program doctors to increase from 30 doctors at the beginning of the project to reach up-to 2300 attending doctors distributed across the kingdom.

The decentralized model has enabled the program owners to properly create capacity planning processes that allowed for the technological team to further focus on rolling out new features to the platform.

Utilization of doctor's rate of performance has been notably increased due to proper rollout of operations as the rate of doctor coverage increased from 6 hours to 16 hours.

Clinical focused workflows

With the iterative model of rolling out new features to the product, the clinically organized workflows had been at the center of the creation of new features such as: validated ePrescriptions, doctors SOAP captures, mass communications features, patient cohort's segmentations, and patient scheduling modules.
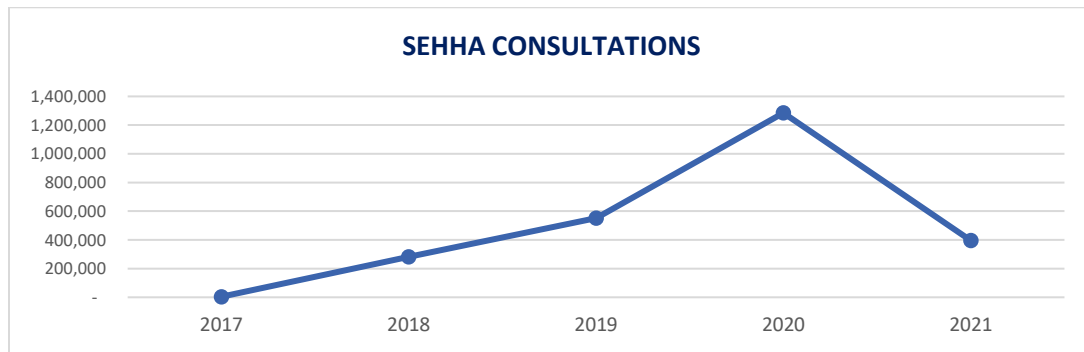
Insights and conclusion

Figure 3. Total Sehha Consultations

The project through its span of 5 years has seen a significant change in virtual operations and contact centers. **With a 2 million user base on Sehha, Cura has operated 2.5 million consultations through more than 6620 doctors.**

The project overall has increased the efficiency of the MOH's call centers that was not supplying the means for the increasingly demand of such service. Through repetitive operating models, the clinical efficiency of managing the patient requests remained a strong pillar of clinical operations.