

Vital Signs

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Dear Reader,

Dvara Health Finance's (DHF) mission is to ensure that spending on health translates into better financial and health outcomes for all Indians. We aim to offer at-scale, tailored financing and information services that will enable lower out-of-pocket expenditure for the individual at the point-of-care. Our first product, the NEEM Account, combines automatic savings, insurance and out-patient care coordination.

Our quarterly newsletter, 'Vital Signs', is an effort to build a community of practice for health sector innovators and practitioners in India. We aim to share learnings from new healthcare models and build a vibrant community that helps improve the value equation for household spending on health.

In this issue, we are delighted to share details of our partnership with the Mann Deshi Mahila Bank and Foundation. Launched on September 15 in Mann Taluka (Maharashtra), the NEEM program has 800+ subscribers as on date drawn from the customer base of Mann Deshi. We describe in detail the solution and the service delivery approach. This issue also features a Q&A with Dr Neil Patel, a member of our Medical Advisory Board. Dr Patel was a founding member of Iora Health - a pioneer in primary care. He is currently Chief Health Officer of Patina, a primary care provider in the US. Dr Patel has been a valuable mentor and helped shape our own thinking with respect to the role of care teams and keeping patients at the centre of all that we do. I am so pleased to share some of his perspectives with you. Finally, we share learnings from the field through a customer case study to understand the importance of the health worker-to-physician-to-specialist referral pathway in driving the appropriate management of uncontrolled diabetes.

We would love to get your thoughts on this issue. In future issues, we will share insights from our partners & advisors as well as learnings from ongoing programs. Please send your suggestions on what you would like to see in future issues or anything health financing-related at communications.health@dvara.com. You can also subscribe to the newsletter by signing up [here](#).

Season's greetings & wish you good health!

A handwritten signature in blue ink, appearing to read 'Bindu Ananth', with a stylized flourish underneath.

Bindu Ananth
Founder & CEO - Dvara Health Finance

Section 1: In Spotlight – Partnership with Mann Deshi Mahila Bank and Foundation



DHF's partnership with Mann Deshi deploys a hybrid approach (health worker + remote doctor) to health care delivery while increasing financial preparedness

In this section, we throw light on our partnership with Mann Deshi and the NEEM program being carried out in the Mann Taluka, Maharashtra region. We describe in detail the solution and the service delivery approach.

The Mann Deshi (MD) Mahila Sahakari Bank was set up in 1997 by Ms. Chetna Sinha as a cooperative and the first bank in India focussed on rural women. Over the years, MD Bank and Foundation have been at the helm of several innovations aimed at rural women and have outreach to nearly 1 million women in the Western Maharashtra belt.

MD got involved in healthcare in the context of Covid. Like in the rest of the country, the second wave took a heavy toll in their program area. MD Foundation entered into a Public Private Partnership to operate the Government hospital in Gondhawale Khurd in Mann Taluka. They also played a significant role in the vaccination effort. Around the same time, MD Foundation set up a first of its kind rural diagnostic centre with state-of-the-art facilities so that people living in neighbouring villages would not have to travel very far to access diagnostics and imaging.

When Chetna and Bindu were talking about what might be the long-term vision of this healthcare initiative, they realised that it was the perfect time and setting to bolt on primary care and health financing to the ongoing effort. This was the genesis of the NEEM program. We spent time with the MD teams understanding their member needs and current experiences with healthcare. An IFMR LEAD study conducted in the region around the same time revealed significant gaps in terms of access to health facilities and transportation. Women who were surveyed highlighted the challenges associated with accessing care and the delays related to male members having to accompany them to a facility. More than 35% of those surveyed mentioned having a chronic condition with diabetes being the most prevalent. There was little to no access to cancer screening. NFHS data for [Satara district](#) reveal that high blood pressure incidence among women increased sharply from under 1% to 27% (one of the worst performing districts in the country) while anaemia has remained high but flat at ~ 50% in the last five years.

Against this backdrop, the NEEM program was launched on September 15 in Mann taluka. Enrolments into the program are driven by MD bank sakhis who have existing relationships with 400-500 customers. As part of enrolment, adult members of the household are included in the program and Know Your Customer (KYC) details are captured for the woman member.

The NEEM subscription is priced at Rs. 50/family/month and includes the following services:

- i. Access to a health team (health sakhi + remote doctor) for unlimited consultations
- ii. A baseline health screening for all adult members
- iii. A wallet for health savings

The enrollment is rapidly followed up with a screening appointment. NEEM health sakhis schedule a time to visit the family and implement a standard screening process. This has been designed by DHF as a non-invasive process that spans risk assessment for hypertension, diabetes, obesity, vision and certain types of cancer. The screening data is entered by the sakhi digitally in the NEEM360 application. Basis this, a triaging and risk stratification is done. All screened individuals receive a call from the remote doctor counselling them about the results and need for follow-up action.

Once the confirmatory results and diagnosis is obtained, the sakhis are responsible for ongoing monitoring and support with medications and referrals as needed. Depending on risk status, three-month, six-month and nine-month check-in

processes have been defined. The doctor can access a panel of specialists for complex cases. The program places a heavy emphasis on cardio-vascular disease prevention and management as this is the leading contributor of avoidable hospitalisation.

One of the core differentiators of our approach is combining the cultural connect and physical availability of the sakhis with a protocol-driven approach to screening and treatment. Rather than rely on the doctor as the first point of contact, sakhis are trained to draw on them as needed. The role of the doctor is thus primarily one of a trainer and quality auditor. We believe this is a far more scalable model than relying on doctor-centric models for care delivery. We have been inspired by the example of the Alaskan Community Health Aide model who have been successfully providing comprehensive primary care in rural Alaska including emergency, acute, chronic, and preventive health care for all [ages](#).

The NEEM program has been very well-received by the community and we have seen eager usage of services. In the coming months, we plan to increase coverage to ~ 5000 families and also roll out the health insurance offering. We look forward to sharing more data and results of the program in the coming months.

Reflecting on the need for a program like this, Ms. Chetna Sinha said,:

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Women in rural India are often the last ones in their families to seek healthcare services because of their dependency on the male members in terms of mobility and finances. They either choose to suffer in silence or visit the local chemist and take over-the-counter medicines, rather than see a doctor. It is precisely this challenge that we wish to address with the Mann Deshi NEEM programme, whereby our health sakhis, backed by a digital doctor, are providing last-mile women with the first line of defence and are taking healthcare to their doorsteps. With a focus on reducing the need for secondary and tertiary care, our goal is to ensure timely screening and early detection of non-communicable diseases and help with their management. Another important goal is to create health-seeking behaviour among the population, and to make all women feel empowered to make informed decisions about their health

Ms. Chetna Sinha

Founder, Mann Deshi Foundation & Mann Deshi Mahila Bank

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Section 2: Expert Talk



Q & A

Dr. Neil Patel

Chief Health Officer at Patina

We sat down with Dr. Neil Patel, MD, to discuss all things primary care and where he sees the need for real change to occur, when it comes to truly meeting the needs of patients

Currently Chief Health Officer at Patina, and formerly a founding team member at Iora Health, Dr. Patel has been an early innovator in the primary care space; working to build patient dignity and empowerment into the way that medicine is practiced. In this section, learn more about Dr. Patel's human-centric approach to patient care.

Q1) Your work at both Iora Health as well as Patina has focused on deep personal connections and restoring a sense of dignity throughout patient journeys. Can you tell us more about the ways in which your organizations have worked on these aspects?

Our basic premise is that continuous, healing relationships bear immense power that often is overlooked in modern healthcare, perhaps obscured by the increasing complexity of diagnosis and treatment through new technology, perhaps obscured by perverse payment systems. The advantage we've enjoyed at both Iora and Patina is to be able to redesign care from scratch around the first principle of continuous, healing relationships. Broadly speaking, we've done two things around this:

First, we've sought to unlearn or reform the systems aspects that perversely interfere with continuous healing relationships. We have been able to create space for relationships by removing barriers. In the US, the fee-for-service revenue model tends to promote shorter transactional visits with minimal communication between

billable visits. In order to maximize visits and meet the financial incentives that this revenue model offers, we see clinics implement systems that interfere with relationships. For instance, clinics may offer access to a different clinician on each visit. Another example is that primary care clinicians may refer to specialists not for their expertise, but because it is a more efficient use of their time. By shifting wholesale away from fee-for-service (and towards value based financial models), we have been successful in creating a more open and flexible space for deep, healing relationships to flourish.

Second, once we've removed these incentives, we've learned that this open space needs to be filled with systems that actually promote relationships. A great example is the creation of discrete roles on the care team that are able to focus on relationships. For instance, at Patina, we've worked to elevate the role of Loved Ones in patient care. Particularly for patients who are in their later years, enjoying support of adult children or other caregivers, there is great value unlocked when we extend the relationship to include Loved Ones. Our technology, for instance, has data structures that help us to understand any loved ones that our patients include in their care. We've built systems that integrate the specifics of their role: my mother, for instance, might grant me permission to be a member of her care team, engaging in visits or asynchronous messaging, weighing in on important shared decisions. In addition, we've expanded our care team to include community health workers, nurses, and behavioral health specialists who can support patients through trusted partnership.

Q2) Care teams composed of physicians, nurse practitioners, health coaches, behavior specialists, nurses and care managers have become more and more popular in recent years, as part of programs that closely manage the health of patients in the United States. What place might such care teams have in community-based primary care globally?

Team-based care has become a fairly common practice globally, hasn't it? Most patients will work with a nurse or medical assistant as well as folks like a receptionist to grant access and meet their needs. I think it's important to explicitly consider the goals and maximize the benefits of team-based care. It's important to study your system, and build a team based on the constraints that you're aiming to alleviate.

I've become inspired by the theory of constraints, drawing from manufacturing and software development. Most systems reveal internal constraints and bottlenecks when you make work visible and observe where this work is being delayed or accumulating. Teams allow us to increase flow through these constraints so that our systems are able to generate more value to our patients and communities. Globally, we often find these constraints at the physician or licensed practitioner level. For example, a busy practice I've supported noticed that the work of care was accumulating when primary care practitioners were unable to complete patient requests for medication refills. We observed that by having team-mates dedicated to this work, organizing requests, completing protocolized steps in the refill process, and allowing the PCPs to focus on only those steps that required their attention, we were able to alleviate this constraint, avoiding delays and ensuring patients more reliable access to their medications. In a world where health care resources are nearly universally limited, these sorts of team-based models can unlock significant value for our communities.

I'll add that this same examination of constraints has led us to apply our teams to support the patients directly. While the

most apparent bottleneck in a system may be the physician, often we find that the ultimate constraint may be found with the patient and behavior change. When we see this, we can apply our team to support behavior change. For instance, even a well-tuned system where medications are being refilled efficiently will not be effective if our patients are unable to obtain those medications, or are not motivated to take them as prescribed. In these instances, the community health worker working directly with patients to listen, understand, overcome barriers and unlock motivation might drive improvement.

Q3) As a family physician with an array of experience across both the United States & the Global South, what are some underrated or perhaps under-appreciated approaches to patient care that can deliver 'success' (such as improving adherence) - in community-based healthcare?

Sure. For one, it helps to have physicians be open to the concept of elevating their patient's voice. This is not without its challenges; in medicine, physicians are trained to take the lead in physician-patient interactions. After all, the physician has trained for many years to be in a position where they can provide their expertise. It can, however, help greatly to train physicians to take the lead from patients at times. Take geriatrics as a specialty for instance – we follow a high-quality care framework described as the 5M's: mentation, mobility, medications, multi-complexity, and what matters most. The last of these is most relevant here. In exploring what matters most to patients (not just elderly ones), physicians will not just address the aspects that patients consider important, but also make it clear to their patients that their opinions matter. When patients see themselves as co-creators in the decision-making process, they set more realistic goals, and are also more likely to achieve those health goals – setting up a platform for greater motivation and eventual long-term success off the back of those early small wins. This effectively makes patients more confident in their own abilities, boosting their self-efficacy with respect to managing their own health.



On a separate note, it's possible that we overestimate our perceived need by patients to be attended to by someone with a 'doctor' credential. This may vary culturally and across different societies – but for the most part, patients want kind and competent individuals involved in care. While we may always need to address shortfalls in physician supply, it can actually really help to have non-medical professionals in the room. There's something very empowering about having someone (who does not possess that pre-defined level of respect that a physician has) actually co-create an agenda with you, the patient – and then assist you in negotiating a care plan with your physician.

Finally, it's important to be able to identify and measure challenges or shortfalls at the level of the patient. Systems often tilt too much towards identifying information about what doctors and the healthcare establishment need most – when the people who we want to be solving problems for should be our patients. This reminds me of an instance where we had a patient who let us know that she was unable to afford a new monthly \$160 medication. One of our lay health workers sat down with her, better understood her day-to-day life and what's important to her. The case worker was able to identify that she was spending a significant amount in cable television subscriptions – which the patient did not use. Physicians as they are trained today and health systems on the whole, are not geared enough towards addressing patient's lives outside of healthcare settings. Through my colleagues' efforts, we were able to ensure that this patient's needs were identified and a simple yet effective solution was provided.

Q4) What is the relevance of risk stratification in primary care?

Stratification does have its benefits – it can be good to classify as per data, free of subjective impressions and human biases. There are a few things to be kept in mind though, when using risk stratification systems. First, stratification can give a false sense of certainty. We tend to see a precise risk score and assume that there is accuracy. Second, stratification should account for more than just assessed medical parameters - it's important to include the effect of other facets such as social determinants in the same. Third, it's essential not to fall into the trap of stratification for the sake of it – where there is no associated meaningful intervention linked to sub-divisions. Fourth, quantification of risk or severity of disease can be

dehumanizing to patients, and so must be applied with care. Personally, I opt for an approach in which clinical expertise and intuition comes first. It is not always beneficial to allow stratification to undercut human healthcare worker autonomy. As such there's value in putting intuition first, and supplementing this with additional information in the form of data-driven stratification.

Q5) What technologies are you most excited about today, from a primary healthcare perspective?

There are some incredible innovations available today in the world of healthcare. I'm not a technophile, so for me the best technologies are the ones which address everyday needs while integrating effortlessly into the lives of patients. Examples that come to mind in the washroom setting include support bars and toilet seat lifts, which have saved countless hip fractures or allowed people to remain independent at home. Effortless ones, such as toilets that measure and indicate changes in weight.

It's important to note that cutting edge innovation can come with pitfalls. First, when behavioral change is difficult to bring about, we often turn to technology to provide shortcuts to an end; band-aids as solutions, rather than true solutions in the form of behavioral change. Second, as a society we sometimes make the mistake of diving into reams of data – such as from sensors and continuous passive monitoring devices - to identify patterns, instead of directly understanding patients and their needs better. There is no substitute for listening to patients and helping them make quality decisions and take action. As such it is vital to ensure that such innovations and their reported findings do not become distractions, more than they are aids. And to always be mindful that correlation does not imply causation.

The most meaningful innovations though, can have far-reaching benefits - even ones which they were not intended to have. For instance, tele-consultations came to the fore in healthcare as a result of the COVID pandemic. And this forced patients, especially elderly ones, to familiarize them with this technology. This innovation has had an inadvertent effect on their everyday lives, outside of healthcare interactions. They are now able to communicate much more frequently with their grandchildren, who they would otherwise get to see once or twice a year. Their quality of life has been raised as a result.



Section 3: Case Study

Learnings from the field through a customer case study to understand the importance of the health worker-to-physician-to-specialist referral pathway in driving the appropriate management of uncontrolled diabetes

With the majority of India’s population (>64%) residing outside of major Indian towns and cities in areas where specialist care is a scarce resource – there is a need to address populations that have so far received inadequate care. In this section, you can read about how DHF’s work as part of the Mann Deshi NEEM Program has already begun to positively impact this patient population.

Arjun (name changed to protect identity) is a 37-year-old married male and works in an electronics store. He joined the inaugural NEEM Program cohort after his wife and sister-in-law enrolled their respective households in the Program.

Arjun was visited at his home by a Health Sakhi, where he underwent the NEEM Baseline Health Screening. As his screening progressed, the Health Sakhi established a rapport with her patient - and in turn enabled Arjun to open up about his past medical history to the Health Sakhi.

Arjun was first diagnosed with Type 2 diabetes mellitus eleven years prior, after attending a local health screening camp. He has since been on treatment with oral anti-diabetic medications (with dosages increased as well as agents added every 2-3 years) under the care of a local ‘practitioner’ - however, his sugar levels have not once been under control in over a decade. His random blood glucose readings are routinely above 450 mg/dl; and he continues to spend an

average of three to four thousand rupees every quarter across medications, consults and periodic testing.

Arjun’s baseline screening results confirmed his self-reported history of diabetes mellitus. His screening random blood glucose level indicated severe hyperglycemia; in spite of the intense medication regimen he had been placed on. His screening found him to be largely otherwise healthy - a low body mass index, a normal waist circumference, physically active on a regular basis and at low risk of a near-future cardiovascular event. Screening did, however, reveal that his visual acuity had markedly worsened since his last visit to an optometrist - prompting the revelation that in the preceding decade, Arjun has never visited any specialist to track complications that can occur secondary to hyperglycemia.

In a continuing conversation with his NEEM Program assigned Digital Doctor, Arjun reported he had been fully adherent to medications in the last couple of years - not because he trusted their effectiveness, but because he had been living in pain ever since. The Digital Doctor found his reported symptoms to be in line with severe diabetic neuropathy. At no point, since his pain symptoms began, had Arjun been initiated on medications that were meant to address neuropathic pain.

Following the patient's confirmatory fasting blood sugar test, which showed alarmingly high values, the Digital Doctor proceeded to facilitate the referral of this patient to a diabetes specialist on the Dvara Health Finance tele-medicine specialist panel. The patient was placed on an appropriate care plan under their Digital Doctor, intended to address the patient's diabetes diagnosis as well as improve their quality of life with respect to living in pain.

Two weeks following the initiation of treatment, follow-up assessments showed a one-third reduction in blood glucose levels (albeit still dangerously high), and Arjun

reported his neuropathic pain as being 'manageable' for the first time in years.

This case study tracks the journey of a patient whose quality of life has been adversely affected, secondary to a lack of resources and appropriate health information due to their geographic location. To compound matters, the patient experienced minimal tangible returns in the form of better health - following an entire decade of significant health expenditure and seeking out care, in a bid to resolve their health issues.