The New Paradigm in Community-Based Care: Managing Mindset and Expectations

INTRODUCTION

Scenario 1
An elderly female, aged 78, had a fall at home. The family called the emergency ambulance service, and she was sent to the nearest acute care hospital. She sustained fractures of her superior and inferior pubic rami and experienced pain with movement and ambulation. She was hospitalized, and an orthopedic surgeon was her primary doctor. In the ward, she was referred to the physiotherapist for rehabilitation and exercises, a pain specialist for pain control, and oral medications were not sufficient to control her pain, and the endocrinologist was called in to help with her Diabetes Mellitus (DM) management, as her sugar levels were always beyond 15 mmol/l while she was in the ward. The medical officer also asked the dietitians to review her and talk to her family about her food intake and regulation. Her blood tests which were done at admission showed renal impairment, likely from her many years of DM and thus, diabetic nephropathy. A renal physician was also asked to provide consultation and inputs. When a ward nurse noticed she was not relevant in her responses and keeps forgetting instructions, she highlighted this to the medical officer who felt a psychiatry consult would be relevant. The latter came to see her and thought that as there were signs of dementia, she should be seen by the geriatrician. 1 week had passed, and she was still getting consultations with multi-disciplinary health-care professionals. Her family was concerned about her hospital bill, and they approached the nurses, who told them to meet the administrator at the Business Office.

Scenario 2
A 78-year-old female sustained a fall at home and landed on her back. Her neighbours heard her and they activated the neighborhood Family Physician (FP) who visited her at home to assess her. He found tenderness in her pubic bone area. She was prescribed analgesia, and he then called her daughter who was at work, to explain the situation. He explained also that he would be taking her down to the Family Medicine Center (FMC: in Singapore, this represents a group of family medicine clinics, laboratories, and radiology services all in one locale or vicinity, readily accessible to the community living in the area) across from her block of flats, to have X-rays performed. In the meantime, he also organized the physiotherapist and care coordinator from the FMC to visit her at home. The neighbors activated their befrienders’ network, and several females came down to help out with her meals, household chores, and administration of her prescribed medication. They kept her daughter updated as she was unable to leave work.

What does it take to move from a model in Scenario 1 to that in Scenario 2? Scenario 1 is a hospital-based, hospital-centric, multi-disciplinary model. It is also conventionally, a physician-centric model. Scenario 2 is a community-based model which is patient-centric, in alignment with the notion that the patient should always be at the heart of our care delivery. Scenarios 1 and 2 involved a specialist and an FP playing a central role, coordinating care, respectively. Is one model of care superior to the other? Is there too much focus on acute care and less on community-based care? Are we ready to challenge the status quo and ensure health-care affordability for our population in the long term? Which model will be able to meet the expectations of our population? Importantly, countries also have to review which model is economically sustainable in the medium to long term, especially to meet the needs of their populace, which in some countries include a rapidly aging population?

Some of the considerations that need to be taken into account in coming to a decision include:
- Disease prevalence and burden in the country
- The existing health-care model and system
- The ratio of health-care providers to patient
- Cost and health-care funding in the country
- The current and projected health-care demand and needs
- The perception of the population on FP’s and primary care providers versus that of specialists in hospitals and
- The networks and strengths of the primary care model in the country.

For many countries, including developed nations, the model of care provision is very similar to Scenario 1. How do we prepare our paradigm shift toward the model depicted in Scenario 2?

HEALTH-CARE SYSTEMS: THE ISSUES OF THE DAY

Today, healthcare is evolving faster than ever before. Care models are changing. Governments are seeking better outcomes and lower costs. Insurers and other agencies are asking for more metrics for reimbursements. Physicians and providers are seeking for better patient engagement, as the shift is now more focused on care in the community.¹,²

Health is influenced by a complex interplay of physical, social, economic, cultural and environmental factors; thus the need to view it in a broader context and perspective. Holistic healthcare requires effective partnerships between health-care providers, patients, and their families as well as caregivers. Health-care
systems around the world continue to struggle to keep up with issues related to patient safety, quality, responsiveness to the needs of the people, and managing the ever-changing expectations of consumers. Economic, demographic, and even social forces will continue to put pressure on health-care systems. Thus, there is a need to have ongoing robust review processes and effective resources support for capacity building. There is a need to ensure health-care services are planned, designed and delivered in ways that respect people’s rights, their choices, needs, and preferences for receiving information and care. Some of the critical areas that pose challenges to health-care systems today include:1,3,4

1. The prevalence and ubiquity of chronic illnesses
2. Aging population care needs
3. Health-care inflation and also financing
4. Cost of health-care labor and attracting/retaining talent
5. Planning relevant and effective health-care education and training
6. Managing expectations and mindsets of consumers and the population.

With all these in mind, can Scenario 2 or a community-based healthcare model work? Will it be sustainable? There are good points to support its implementation.

This model of care can enhance delivery efficiency, and is more sustainable and affordable in the longer term. As community-based care means providing more decentralized care closer to patients and families, connectivity will certainly be a major consideration. The state of technological development today allows us this connectivity, even with the decentralization of care. Video-conferencing and video telecommunications are relatively widely available these days. In Singapore for example, there is the national electronic health record; one patient, one health-care record. This way, there can be data and resource sharing, and every health-care provider can be on the “same page” in managing a particular patient. Of course, all these access will be password guarded for maintenance of confidentiality. Guidelines of the Personal Data Protection Act must also be adhered to.1,5 The decentralization and enhanced connectivity model can be seen to be able to contribute positively toward patient care and ease of care nearer to their homes, thus stepping up regarding convenience. This model of care can also help give patients more autonomy, independence, and more empowerment as well as self-control in their own care. Afterall, one patient is a whole, holistic person who will usually have multi-dimensional needs.5,6

Nations can also explore innovative models of community care and customize these to work for their population and suit their local culture. For example in the management of chronic illnesses such as hypertension and DM, there can be more counseling, demonstration (of proper food choices and cooking models) and compassionate care, more up close and personal interaction, to meet their needs. This way, family members, and caregivers are free to join in and actively participate as well. Most importantly, the needs of these long-term care patients with terminal and chronic diseases are met. This type of model can help manage the rigid fee-for-service use of emergency departments and tertiary hospitals, by these patients for a variety of common complications that they can potentially develop. A community-based palliative care model is also better and more receptive for the end of life or terminal care. The emphasis with these is really on the quality of life, the interactions and personal relationships of these patients. In fact, with this model, it may be possible to push the envelope toward more “proactive care” with the empowerment of the people/patients.

Decentralization and Connectivity

The decentralization model of community based care can help expand outreach, across geographic areas. This can be very useful in larger states or countries. In most countries health-care delivery continues to remain very local. Even with Academic Medical Centres (AMC), often the most immediate patients in their vicinity are served. If the value of health-care delivery is to be enhanced and cover a larger scale and area, far more patients need to be served. Thus, the need to plan capacity and strategic expansion. Building more hospitals is not the most cost-effective solution for this, thus the proposed community based care, use of FMC, and the decentralization models. For large parent hospitals or AMCs to have oversight and execute the necessary surveillance and monitoring, a hub and spoke model could be considered. Satellite centers staffing, rotation of staff, collaborative teams practice and engagement by leadership can be planned and executed. AMCs and hospitals should also continually strengthen their partnership with community partners and FMCs, empower them and work closely to achieve the best possible outcomes together. The integration that cuts across horizontally as well as vertically is important to strive for.

To ensure connectivity with decentralization, community-based care must be properly and adequately planned with feedback from all stakeholders, to ensure its main goals are met. It should be evidence-based and customized to the local context. Platforms for knowledge sharing and information, even if readily accessible to care, providers, must be guarded to maintain confidentiality. Importantly, there should also be a means to continuously educate and influence mindsets as well as the behavior of the health-care consumers. The model may serve as a framework such as a clinical community in practice model.

To start off these community-based care teams, there should be sufficiently credible, inter-professional, committed personnel to form the care teams. These teams comprise not just doctors and nurses but also allied health personnel, social workers, and counselors. Some models also add in community volunteers and befrienders as well as a neighborhood network. These groups may be ad hoc, but with the training, they can be a part of the care network model too. These community-based care teams should not be viewed as providing inferior care,
as compared to that in an AMC or hospital. They represent high functioning teams with specialists in different aspects of care provision. This model of community-based care must also not be confused with community nursing, which is more commonly available in many countries. Community-based care will have more case management and case coordination, and relevant staff or managers will have to be employed to help with coordination of care and services.

It will be a value-add if these teams and staff have support and backing, from a reputable institution such as an AMC or a secondary, or tertiary hospital. This kind of decentralization model will fit the analogy of a hub and spoke. The teams must be steeped in strong inter-professional care values with a high level of empowerment. The care planning, implementation and finally, execution, with a certain expected level of responsiveness and flexibility should be inculcated.

With more widespread community-based care, there may be unintended and indirect benefits which can come about. Health literacy may increase, even if just from the fact that more education and awareness is generated. Interventional programs through community at large education and outreach are other reasons for this. As the model also emphasizes the very close and increased frequency of interactions between care providers and patients, education/counseling can be done more often too. All these also help enhance the level of self-reliance, self-management, and self-care among the more able patients. With the maturation of the model and a more established infrastructure, more elements can be added. This may include the befrienders, community leaders, and voluntary groups. Even students from institutions of higher learning (e.g., from medical, nursing, allied health, dental, and social work schools) can come together for their inter-professional education projects and offer services and care in the community as well. Thus, there are many spin-offs that can amalgamate and strengthen the networks.

**Population to Benefit**

Healthcare is more effective when patients are engaged in their own care. Moving forward in a society with aging population, a community based model of care has many benefits. It can be tapped on in the management of patients with long-term chronic diseases and especially those with complications. An example would be an elderly old, who has the complications of many years of DM, needing regular follow-up and care. Not only the elderly but also adults and children with chronic illnesses, congenital diseases, and those needing long-term care will also benefit. At risk individuals, such as patients with fall risks, living alone without family support, those with frailty issues (frailty syndrome can be under-recognized and underdiagnosed) and those with noncompliance issues are other examples of those who will benefit with this type of care model. It may even help reduce readmissions and re-attendance rates among regular attendees in emergency departments and hospitals clinics.[2,3,4]

Another group of patients who will find this model useful will be those with end-stage diseases, advanced cancer, as well as those needing palliative and end of life care. The dignity, family, and community support it can offer is a welcome to them as they may wish to spend their last days in familiar environments with loved ones in close proximity. Even those with recent discharge from hospitals needing intermediate care support will benefit. In certain context, the medical care teams need to be supplemented with social support teams as well and this can be made available on a demand basis. With this, society can be offered the multi-dimensional, multifaceted, integrated care they need, with all the necessary social and emotional/psychological support.

Patient centered care is a focus by the healthcare model on the needs, preferences, and outcomes relevant to patients and families. There is both organizational and individual commitment to ensure patients are motivated, cared for and prepared for the different stages of their medical care or injury.

With any model of care, responsiveness is critical to meet the expectations of the public and patients as well as instill confidence. At the end of the day, both health-care providers, and consumers, in the system, would like to see:

- Improved quality of care
- Better care outcomes
- Higher levels of satisfaction
- Easier and faster accessibility
- Better coordination and
- Cost kept within certain limits of affordability.

**Innovative Technology in Community-Based Care**

Consumer health wearable technology is becoming more widespread and starting to make an impact on patients and patient care. In the proposed area of community-based care, how can these be incorporated? It needs careful, strategic planning, and implementation to supplement the care provided and simplify monitoring and oversight. With digital diversification, this is possible today. Data can be obtained with personalized health analytics, as well as customized advice and preventive practices for different groups of people and patients in the community. Some of the modalities that can be used include tele-care/telehealth, with the remote and wireless transmission of data and information, specific interventions and also monitoring (e.g., electrocardiogram, vital signs, falls, and motion). The instant feedback and individualized approach are very attractive. There is a strong potential for a big market in this, and the community-based care model has the potential to drive the wearable and health-care technology industry.[7-10]

On the other hand, as with any other health-care technology, issues with information guarding and maintenance of confidentiality is important. Some systems that utilize GPS, the internet and social media can be at risk to hackers, and thus the necessary technological, as well as cybersecurity considerations, are needed.
**CONCLUSION**

To advance true systems integration with community-based care, the following are crucial considerations:

1. Definition of the scope of the service
2. Defining the extent of the service; perhaps, concentrating volume in selected and focused locations, which have to be carefully chosen. Piloting may be one way to have a trial covering certain areas first before subsequent expansion with the necessary modifications.
3. The integration of care across locations to ensure seamlessness. This calls for a model with a certain degree of dynamism and flexibility.

For any community-based care model to work, there must be collaboration bringing together citizens, consumers, health-care providers, innovators and the government. Each of these groups plays a significant role to ensure an optimized model of care in the community is implemented.

Healthcare of the future is taking a more significant push towards preventive, primary and community-based care. It pays for nations and states to explore these early, even before many have reached the critical threshold of embarking on the silver tsunami, as in some rapidly aging nations.

Life’s journey in health and disease requires different sensitivities and types of care delivery during each chapter or phase. The final phase, whereby death is certain and imminent is best addressed with extracare and support not only physically but also spiritually and emotionally.

The right model ensures people get the right care, at the right time, by the right team, in the right place.

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