



### ICHOM Written Interview

Filipe Costa is Director of the VBHC Program in Luz Saude, Deputy Director of Operations, Researcher and Assistant Professor at Nova School of Business and Economics. His areas of interest and research focus for the PhD Doctoral program in Management are the concept of value based healthcare from theory to real implementation.

Filipe led and carried out several national and international projects in value based healthcare. He is an associate member of Health Economics and Nova Management Knowledge Center SBE, has an MBA and a Master in Management in Value Based Healthcare. Distinguished with the Merit Award of 2019 International Hospital Federation in Patient-Centered Care with the Value Based Healthcare project.

#### **1. Tell us about your current role and responsibilities/key focus?**

I am part of the leading team responsible for developing the value-based healthcare model in Luz Saúde group, from clinical team protocols, to main responsibility of Patient Reported Outcome Measures, to the cost model of the clinical pathway.

I deeply believe that management development without permanent learning and parallel academic and investigation is a non-productive way. I have a permanent and intensive literature connection to all articles and text on VBHC that is being published. My areas of interest are: Value Based Healthcare, Outcomes, TDABC, Business Plan Development, Strategic Planning, Pricing , Performance Improvements, Project Management, Risk Management, organizational theory, Operations Management, Economic Development, Economic Growth , Income and Wage Inequality, Human Capital and Training, Labor Economics.

#### **2. What is your background in patient reported outcomes measurement/value-based healthcare?**

I have been Deputy Director of Operations since 2014. I define myself as a good strategic manager with a critical appreciation and vision, able to build and implement development plans and strategic pathways with a proven track record explicitly supporting business needs concerning Oncology. I take a collaborative approach with good interpersonal skills to engage every stakeholder and I am a good source of motivation and encourage others through a continuous changing vision over the full cycle of care to the oncological patient's needs.

Highly focused on a consistent track record for successfully delivering full lifecycle benefit implementations to the oncological patient care conditions, such as defining and measuring outcomes and costs, are one of my main goals.

The future of health systems also depends on the ability to have new forms of management and organization. Advanced knowledge in management, as provided by a PhD, applied to health care organizations provides a valuable contribution to improve health systems, and population health care organizations as a valuable contribution to improve health systems, and population health. In the last 12 years my full dedication to what I believe is the new model of healthcare is Value Based Healthcare. I have studied all the organizations that implements VBHC. I have been dedicated to investigation, learning and implementation about this subject, and so it has been my focus on economic, management, organizational and business model of value-based healthcare. At the PhD NOVA School of Business and Economics, - VBHC from theory to reality, and as a Researcher in Nova Healthcare Economics & Management in the perspective of VBHC. In the last years I have putted in practice a VBHC model and developed PROMs tools that measures outcomes that matters to patients.

**3. What is the biggest lesson you have learnt regarding your experience to date with patient reported outcomes measurement and value-based healthcare?**

The growing concern with the improvement of quality and efficiency in the health system in the world, has given greater importance to the analysis of the organizational culture, since technological innovation as well as its investment has become one of the biggest challenges to the expenses in the last century in an area as important as oncology. This permanent analysis of the organizational culture change strategy for a new VBHC strategy aims to provide information of relevance to the decision making about the alternatives that best answer the management needs and changes of the internal philosophy of a health organization. In the present paper, we sought to fill gaps about the quality of life in treatments for cancer patients, evaluating the impact of introducing a VBHC methodology that has a significant impact on organizational culture. Its impact on the quality of life of relevant patients, as well as the effective results of leadership and group culture are essential.

This process is a call-to-action for hospital and health care system decision makers to consider how PROMs could be applied to their area of specialty. Despite the implementation challenges, the potential of proms in improving care is significant and PRO data utilization continues to become increasingly common. The more hands-on experience from applying PROMs we accumulate, the better protocols and ePROM tools we can design. Most importantly, the insight provided by proms help professionals focus on what matters to cancer patients, provide better and more personalized care – and ultimately, make more of a difference to patients' health status and quality of life. Nevertheless, we found that the uptake of an ePROM system faces implementation barriers, such as planning and designing the system infrastructure, training users, and engaging staff.

**4. What is the most important piece of advice you would offer a peer considering patient reported outcomes measurement and value-based healthcare implementation?**

The power of PROMs lies in their ability to turn subjective experiences into numerical scores that can easily be utilized for quantifying how effective health care interventions are, both on an individual and a larger population level. This allows the data to also be used for strategic and analytical purposes, including health policy decisions, quality improvement and comparison of clinical practices, even across different countries.

The scientific evidence in support of using PROMs in routine clinical care is robust. In fact, a large part of the benefits can be traced back to improvements in patient-clinician communication caused by the increase in timely, automated, and systematically collected patient-reported information. For patients, key benefits include improved quality of life, symptom management and satisfaction with care. For health care professionals, the main advantage is gaining a better awareness of the patient's experience on care outcomes. PROMs data help the clinician to focus on symptoms that need attention, both during and between clinic visits and without prolonging consultation time or interfering with workflows. The process of shared decision making creates an integrated connection between patients and clinicians in a larger scale. PROMs are the engine to create that connectivity and are able of bringing into the consultation to the topics that matter to the patients.

The evidence in favor of self-reporting by patients is robust. From the point of view of the patient, PROMs shift part of the clinical care focus and place them more at the center of care. Being heard in this way can have an empowering and engaging effect. The use of PROMs as part of routine clinical care:

- increases patient satisfaction with care: 30%
- improves patient-provider communication: less time in consultation
- improves symptom management leads to less frequent hospitalization and admission to the ER: in COPD less than 40%

Perhaps most importantly, PROMs enhance communication between patients and care providers and improve patient involvement in care planning and decision making. PROMs provide an opportunity for patients to provide input from their perspective and to be more aware of expected outcomes and how they compare.

Being systematically asked about symptoms can also train patients to better identify, track and report their symptoms. This can significantly improve quality of life and satisfaction with care, particularly among patients with less-developed health communication skills. PROMs can also help patients deal better with their symptoms. Some PROMs systems are designed to provide educational material to patients, tailored to their reported symptoms and needs, right after they complete a survey.

There is some evidence that clinical outcome measures seem to improve after patients start measuring, reporting, and sharing responsibility for the management of their condition with their physician. However, it will be a few more years until we have the thousands of cases needed to produce definite high-quality research on the impact of routine PROMs collection on health outcomes.

##### **5. What do you think are the biggest obstacles to patient reported outcomes measurement and value-based healthcare?**

Clinicians are often reluctant to use PROMs routinely because they fear it will add to their workload and disturb their workflows rather than make them more efficient and effective. Furthermore, many clinicians who do spend time talking to patients contend that they already understand their patients' problems and do not need additional information from them. Clinicians required training on areas such as reviewing ePRO reports and alerts, score interpretation, and the discussion of ePRO scores with patients. PROMs are meant to solely represent the patients' perspective and be independent of the views and interpretation of the clinical team providing their care. The method of data collection must therefore ensure that patients complete their questionnaire unobserved and unaided by care providers.

Traditionally, questionnaires were collected via the traditional pen and paper format, but PROMs are now increasingly collected electronically. Extensive evidence indicates that PROMs administered on paper are quantitatively comparable with measures administered on an electronic device. Compared to paper-administered PROMs, electronic PROMs are more efficient and less time-consuming to use, the data they provide is complete and more accurate, easier to scale and more adaptable. Electronic PRO applications ensure fast, patient-driven reporting. A variety of applications exist for different devices, including smart phones, tablets, personal computers, and wearable medical devices, as well as web-based portals. We also confirmed patient preference for electronic administration of PROs, even among patients with low computer literacy. So it is important to measure the level of engagement in the use of proms, and also results such as, improved time of consultation, improved communication, and increased shared decision making, diminishing re intervention, hospitalization and admission to the ER, etc.

## **6. Where do you see the biggest opportunity for value-based healthcare to flourish?**

For health care professionals, the key benefit of using VBHC is gaining a better, more systematic understanding of the patient's journey on care outcomes. VBHC and PROMs data can help the clinician to focus on symptoms that need attention and quickly determine whether symptoms are worsening or improving over time. This insight can be used to modify the care path for the patient and to improve or maintain a high level of care and expected outcomes.

We have collected evidence that the regular use of VBHC:

- facilitates and improves communication between patients and health care professionals: preparatory meeting with patient association
- increases awareness of patients' functioning and wellbeing: preparatory meeting with patient association, to prepare a national panel to listening to patients
- does not adversely affect clinic workflow or visit length: reported high levels of satisfaction from the clinical staff
- facilitates shared medical decision-making as patient participation is enhanced: observational study that agrees with the three steps of shared decision making
- a better understanding of the cultural organization of VBHC around a specific condition or pathology
- better understanding of the costs to deliver that full cycle of care
- improve outcomes that matter to patients in a vertical integration of care with the correct costs to deliver that outcomes

Furthermore, alert systems enable clinicians to recognize occurring symptoms in real time despite the geographic distance between the patient and medical services. Because patients track their outcomes between clinic visits and can communicate electronically when there is a change, the timing of appointments and their duration and content can be preplanned by staff, guided by patients' needs and priorities. Registry data can also be aggregated to examine population health, improve quality of care, and provide transparent public reports on patient outcomes and costs.

## **7. What advice would you offer on how to approach patient reported outcomes measurement and where to get started?**

Luz Saúde implemented an proms platform, aiming at collecting generic and condition specific PROMs, by electronic means, from every secondary care patient at the hospital group. proms at Luz Saude are a means to measure the outcomes of clinical of treatments and services integrated in the concept of Value based healthcare (VBHC). This application reports on the experience of having developed such platform, that is suitable for large-scale data collection, storage, and analysis and reporting. We also identify the problems encountered and solutions implemented using a generic PROM survey as an example.

As for background, the importance of truly listening to the voice of patients is growing, as health systems strive to position patients at the center of care. Among the key solutions for a more patient-centered clinical practice are the electronic patient-reported outcome measures: PROMs.

These digitally implemented platforms, gifted with validated questionnaires, reveal patients' views on how health care interventions impact their quality of life. Using patient-reported outcome measures has advantages. Patients experience substantial physical and psychosocial consequences of the disease and its treatment, and much of the symptom burden occurs outside the hospital. Research suggests, however, that these consequences may be under-recognized and under-treated, for example, in the oncology practice. Recent studies have shown that routine collection of PROMs as part of cancer therapy and follow-up may positively impact the survival and quality of life of cancer patients. In this application, we summarize the benefits of collecting and using PROMs in routine care and follow-up, relying on scientific literature.

We also introduced Luz Saude's framework for defining a PROMs collection protocol and applying it in practice. While the scope of the following description is limited to cancer care, many of the points and goals raised here are general in nature and apply in other specialties. Patient-reported outcome measures (PROMs) offer enormous potential to improve the quality and results of health services. They provide validated evidence of health status from the point of view of the user or patient. They may be used to assess levels of health and need in populations, and in users of services, and over time they can provide evidence of the outcomes of services for the purposes of audit, quality assurance and comparative performance evaluation. They may also improve the quality of interactions between health professionals and individual users.

Finally, regarding the context of the project, proms are a powerful tool in assessing and understanding the patient experience, as they provide data about patient symptoms and needs throughout the many phases of care, including treatment, palliative care, survivorship, and hospice. This real-time data can be used to complement clinical data and support clinicians in identifying and tracking symptom progression, as well as in integrating patient-specific intervention opportunities into routine clinical care.

## **8. What are the top 3 case studies and real-world examples of patient reported outcomes measurement and value-based healthcare implementation that would you recommend for further investigation?**

Higher Volume/ Complex case with multidisciplinary approach: Breast

High Volume/ Easy Pathway: Cataract

High Volume/ Complex chronic condition: Diabetes

**9. What further reading would you recommend assisting our stakeholders in their patient reported and value-based healthcare journey?**

Study n°	Article Title	Authors
1	The European Organization for Research and Treatment of Cancer QLQ-C30: A Quality-of-Life Instrument for Use in International Clinical Trials in Oncology	Aaronson, et al 1993
2	Patient Reported Measures in Breast Cancer patients	Lagendijk, et al 2018
3	Interpreting the Significance of Changes in Health-Related Quality-of-Life Scores	Osaba, et al 1998
4	Implementation of Value Based Breast Cancer Care	van Egdom, et al 2019
5	Validating and Improving the Reliability of the EORTC QLQ-C30 Using a Multidimensional Rasch Model	Ching-Lin Shih, et al 2013
6	Health-Related Quality of life Assessments	Detmar, et al 2002
7	Measurement of Quality of Life in Patients with Lung Cancer in Multicenter Trials of New Therapies	Hollen, et al 1993
8	Psychometric Properties and Responsiveness of the EORTC Quality of Life Questionnaire (QLQ-C30) in Patients with Breast, Ovarian and Lung Cancer	Osaba, et al 1994
9	Modification of the EORTC QLQ-C30 (version 2.0) based on content validity and reliability testing in large samples of patients with cancer	Sprangers, et al 1997
10	Quality-of-life outcomes for adjuvant chemotherapy in early-stage non-small-cell lung cancer: results from a randomized trial, JBR.10. Journal of Clinical Oncology, 26(31), 5052-5059.	Bezjak et al., 2008
11	Managing Menopausal Symptoms in Breast Cancer Survivors: Results of a Randomized Controlled Trial	Ganz. et al 2000

**10. Have we missed anything you would like to add?**

Some challenges remain, including ensuring there are enough resources available for system implementation; planning and designing the system infrastructure adequately; training all users; and engagement of clinical staff.

The addition of PROMs systems into clinical care requires a significant investment of resources and planning at the outset. Proper planning, design and management of the system at the initial stage will however pay off later, as the added value of an ePROM system is very dependent on the type of outcomes it was designed to achieve and on how well it was designed for its purpose and context of use.

A wide variety of PROMs solutions exist, and it was challenging to see that no one gives the level of detail and attention to what this platform creates. An PROMs system requires comprehensive IT

infrastructure, including technical devices for data collection and output, appropriate software solutions and network facilities for data transmission, storage and back-up, technical support, and updates.

Design challenges were to include integrating the system into the clinic workflow and interpreting clinical relevance. Integrating PRO reports into the electronic medical record and other pre-existing IT systems was essential, as it significantly streamlines PRO review and use by clinicians. The user interface as well as PRO reports and alerts presented to clinicians must be clear and provide actionable data, and that was a challenge. It was also difficult to identify the appropriate thresholds for PRO-based clinical alerts. One of the major barriers to PROMs implementation – as with introducing any major organizational change – is reluctance to change. Using electronic systems to record patient feedback requires a certain mindset and a certain level of IT skills from all users: clinicians, staff, and patients.

Please include links to any Articles, Reports and Citations you wish for us to include/that you have contributed to or simply recommend for further reading for our readers and stakeholders:

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19. WEICK, K.E., SUTCLIFFE, K. M. - Managing the Unexpected: Assuring high performance in an age of complexity. 1<sup>a</sup> ed. San Francisco: Jossey-Bass, 2001.