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A Blueprint for Measuring Health Care Outcomes

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The starting point for achieving value in any health care system is to **measure outcomes**. Although this can present **leadership challenges** related to shifting strategy, culture and operations, it certainly isn’t rocket science. There are hundreds of provider organizations the world over that have already implemented outcomes measurement, and this number increases every week. Regardless, many providers still believe that measuring outcomes is too difficult to do.

Through regular interaction with our global network of value innovators, we at the International Consortium for Health Outcomes Measurement (**ICHOM**) have developed a 10-step implementation “blueprint” that any provider can follow. Of course, there is no one-size-fits-all solution for
measuring outcomes, and all providers must make specific tweaks in order to make it work for them. However, all must take similar steps, traverse similar challenges, and build similar infrastructures to facilitate outcomes measurement.

Here we describe how one of the world leaders in outcomes measurement, Erasmus Medical Center in the Netherlands, used this blueprint in one of its pediatric surgery departments – for cleft lip and palate. To build a successful measurement program like this one, follow these steps:

1. **Get Institutional Commitment**
   You need to have senior management that really understands what value-based health care (VBHC) is all about. Back in 2012, Erasmus’s CEO, Professor Hans Buller, was a huge proponent of VBHC and led the development of the organization’s 5-year VBHC strategy with one of us (Dr. Hazelzet). The board approved, and Erasmus’s next CEO – Ernst Kuipers – drove this forward from 2013.

   Engaging institutional leadership in the outcomes or quality domain – representing the numerator of the value equation – is vital to begin measuring outcomes. Engaging leadership in the finance domain – representing the denominator of the value equation – is helpful as it will ensure dedicated resources. Once the senior administrators are on board, the next step is to issue a call to arms to the workforce. This includes clinicians, administrators, information technologists, researchers and others. Everyone in the organization needs to be engaged so that ownership will follow. It is important to speak the right language and frame this correctly. Emphasizing improved “quality” and “outcomes” is far more motivating to staff than cost-cutting or emphasizing the need to avoid “penalties”. This is a learning and improvement opportunity for all which will align interests across disciplines. And don’t just describe outcomes measurement as a vision – the senior management must have a clear operational plan and show this to their staff, making it real.

2. **Pick a High-Yield Pilot Site**
   Erasmus’s lead cleft surgeons had conducted research on outcomes measurement in the past and had already made efforts to implement what they had learned within the cleft department – before they were asked to. Erasmus’s leadership, therefore, logically decided to run the first pilot on this fertile ground. By no means was the whole organization behind the VBHC strategy at this point; however, it is important to start with the believers and prove the concept locally so that others will follow.

3. **Set Up a Steering Committee and Project Team**
   Outcomes measurement needs a multidisciplinary approach because it will ultimately affect the way all functional areas operate. Erasmus brought together a centralized steering committee and project team of clinicians, information technologists, project managers, and an epidemiologist to provide oversight and act as leadership nodes for their respective functional areas. This team must be assembled at the start of the process in order to provide multidisciplinary ownership and, therefore, commitment. This facilitates persistence later if the program encounters skepticism or administrative or technological obstacles – as does sometimes happen.
4. Develop a Project Management Plan for the Pilot
Erasmus set up 90-minute evening project meetings that ran after clinic. During the most difficult phase – the ramp-up to data collection – this occurred fortnightly. Once collection had started, meetings were held monthly; once data-gathering was going smoothly, meetings became ad-hoc. It is vital to have key milestones, action items and clear accountability from all disciplines, and this needs to be enforced by a single VBHC node – typically a project manager – supported by the senior management. From a project management perspective, it is important to maintain momentum, even in the face of early skepticism. Plan for small, incremental changes rather than mass overhaul.

5. Determine Which Outcomes You’re Going to Measure
During Erasmus’s early transition to value based health care, ICHOM had been working with the medical center’s cleft surgeons on the Cleft Lip and Palate Standard Set – a globally-standardized, core set of patient-centered outcomes. Naturally, the center’s cleft department wanted to measure the outcomes indicated in this standard set. Most departments will already be measuring some outcomes, and it is logical to begin by performing a gap analysis to determine which outcomes you are already measuring and which you would like to but aren’t. Some of these will be easier to begin measuring than others, so start with these first – the “low hanging fruit”. Generally speaking, this will mean starting with clinical and administrative outcomes, then moving onto patient-reported outcomes. In the cleft program, for instance, these easy-to-measure outcomes included body weight, surgical complications, and hospital readmissions.

6. Map Patient Pathways and Clinic Operations
Process mapping the patient pathway through the clinic and between clinic appointments helped Erasmus identify suitable points for data collection during the entire cycle of patient care. It was determined that data should first be collected via a web portal before any appointment when patients are at home and later in clinic waiting rooms during “dead time” before patients were seen by the cleft team. Mapping this out will inform which data-collection tool providers use and will reveal numerous other opportunities for streamlining your clinic operations and patient pathways.

7. Set Up Your Data Collection Tool
Once providers know when and where they will collect outcomes data, they can select or build a tool that best facilitates this. There are lots of solutions out there – from paper forms and Microsoft Excel to bespoke web portals and plug-ins for electronic medical records (EMRs). Erasmus decided to build its own electronic data capture tool, which allows the center to construct data collection forms and distribute these to patients via a web portal. It is imperative for the clinical and IT teams to work together on this: clinicians need to tell IT what they want, and the IT team needs to get on the shop floor to determine exactly what “user-friendly” means for patients and clinicians.

8. Start Collecting on a Small Number of Patients
At this stage, you will have a raw-data collection model and basic tools. You’ll know which outcomes you’re going to collect, and where and how you will collect these. Erasmus tested its model by collecting data on a small number of selected patients with different profiles. As part of this, the team
communicated with patients about what it was doing and why in advance to ensure that they were happy to participate. Unsurprisingly, all patients were supportive, as they understand that positive outcomes and robust data collection are linked.

9. Front-Load Troubleshooting and Refine Your Model
There will inevitably be hiccups, particularly in the beginning. Therefore, the VBHC team must front-load troubleshooting. At Erasmus, the team was present in the clinic every day from the beginning to deal with problems - from errors with electronic forms to clinic flow disruptions. Dealing with these issues early gave both clinicians and patients more confidence. As data collection became smoother, Erasmus continued to refine its model, and the VBHC team and participating staff met regularly to discuss improvement opportunities. For any provider, it is vital to show all staff involved with outcomes measurement how their efforts are paying off. Celebrate positive results, and learn from poor ones.

10. Scale Up to More Patients, More Clinics, and to Other Hospitals
You will know that your data collection model is working when you routinely get high response rates. Erasmus’s cleft department is achieving over 95% compliance for patient-reported outcomes such as appearance, speech, and outcomes related to social interaction, and 100% compliance for clinician-reported and administrative outcomes (such as length of hospital stay). Once the model is up and running, slowly scale up to more patients in the same clinic – and then to other clinics – simply by replicating what you have done in the first clinic.

Erasmus’s cleft department has now reached beyond its own hospital, coordinating with the Dutch Association for Cleft and Craniofacial Anomalies national initiative, to support all other cleft centers in the country to measure the same set of outcomes. Scaling requires sharing resources to lower barriers for others. Erasmus has made its electronic data capture tool, Zorgmonitor Schisis, available for other cleft departments around the world to use.

As value-based health care continues to gain traction, providers not yet measuring outcomes should take heed: the first movers have made it easier for you. It’s time to start measuring.

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