2016 has been another banner year for the KER Unit. Our best-est blessing is the almost constant influx of incredible talent from all parts of the world. Iona Heath left us rich, injecting the beauty of thought and words into our thinking, language, and doing. Gordon Guyatt reflected on the academic journey, success in writing and publishing and the frontier of evidence-based medicine. In September, we hosted the first KER UNIT workshop and more than 30 colleagues from 4 continents joined us to learn together about shared decision making and minimally disruptive medicine. Trainees came and went, and unit members achieved personal academic goals. We said goodbye to Annie LeBlanc and Mike Gionfriddo who had led research programs with our group and who are now collaborators in Canada and Pennsylvania, respectively. Our patient advisory group continued to strongly support the work of researchers in our unit and beyond.

In 2016, we received the largest grants in the history of the KER UNIT, we published more papers than ever before, our shared decision making tools were used at least once every 4 minutes all around the world, and won everything at the Chili Challenge for Boys and Girls Club of Rochester.

We have a clear presence in the media and our work, while still largely ignored, begins to impact healthcare. And that defines what we do: our work is social – we collaborate broadly – and political – we seek to change the way people think and act.

To that end, in 2016 we contributed to the formation of two nonprofit organizations. **WellConnect** is a backbone organization that coordinates the effort of bridging primary care and evidence-based community-based programs. **The Patient Revolution** is an advocacy and action group that will draw and deploy patient stories to transform the healthcare industry toward careful and kind care.

2017 is going to have a hard time beating 2016. Thanks to our diversity of background and talent, and our commitment to patient-centeredness, integrity and generosity, we will continue to work, through our research, towards careful and kind care for all.
Addressing Diabetes Together: Implementation of a Regional Partnership for Population Health

Diabetes, obesity, and the complex social factors associated with these conditions as health concerns of vital importance to patients, the health system, and society. The Diabetes Self-Management Program (DSMP) and the Diabetes Prevention Program (DPP) are evidence-based interventions that address these concerns, and can be effectively delivered in the community setting. We will leverage WellConnect, an innovative and multi-disciplinary patient-centered partnership for sustainable clinic-community linkages that was developed by our team to bring the DSMP and DPP.

Building a Well Care Network in Minnesota

Aaron Leppin is working on a 3 million dollar, foundation-funded project with several stakeholders around the state to explore the feasibility of creating an integrated network of community partners that can enhance patient capacity for self-management. His official role focuses on engaging physicians and healthcare stakeholders from across the state to partner in referring patients and supporting community capacity.
Using Big Data to Understand the Risks and Benefits of Using Opioids to Treat Acute Pain Among Opioid Naïve Patients

The amount of healthcare data gathered is growing exponentially, as electronic medical records become ubiquitous and insurance payment records are moved from paper to electronic submission. A KER unit research team is working on finding meaningful answers to clinical questions using claims and clinical data and apply them for better patient care.

With the findings from this study, we will be able to provide physicians and patients real-world data to inform their discussions of the risks and benefits of using opioids to treat their acute pain.

The Work of Being a Patient (TWOBAP) with Type 2 Diabetes

No medical textbook teaches us about the work of being a patient. Our study uses a smartphone application to learn, though photographs and time-use questions how diabetes management plays out in patients’ day-to-day lives. Patients have shared candid and touching stories about the complexities of managing health and life. We are still enrolling patients and are close to completion with recruitment.
Shared Decision Making in the Emergency Department: Two ongoing PCORI Funded Studies

1) The Chest Pain Choice Trial
The Chest Pain Choice Trial evaluates the utility of a decision aid in patient engagement and rates of cardiac stress testing for patients with chest pain in the emergency department. This PCORI funded study had the objectives:

- Test if Chest Pain Choice safely improves validated patient-centered outcome measures in a pragmatic parallel patient randomized trial.
- Test if the decision aid has an effect on healthcare utilization within 30 days after enrollment.

2) Head CT choice
Evaluates the utility of a decision aid in patient and parent engagement and rates of head CT imaging for children with head trauma in the emergency department. This PCORI funded ongoing study aims to:

Give parents a voice and incorporate the perspectives of multiple stakeholders by refining the Head CT Choice decision aid.

Test if the decision aid improves validated patient-centered outcome measures and safely decreases healthcare utilization, including: increasing parents’ knowledge, engagement, and satisfaction; decreasing the rate of head CT; and decreasing 30-day total healthcare utilization with no increase in adverse events.

Dr. Fernanda Bellolio is an Assistant Professor of Emergency Medicine.
My Life, My Healthcare: A Mixed Methods Study

The ICAN Discussion Aid helps to explicitly consider the relationship between the patient’s life circumstances, healthcare goals, the work patients are asked to do, and their capacity to enact it. This innovative intervention is an application of Minimally Disruptive Medicine (MDM), declared by the BMJ as one of the most important new ideas in medicine in the last 20 years.

The My Life, My Healthcare study will use a mixed methods, cluster-randomized trial design to test ICAN’s feasibility and efficacy on a much larger scale. For this project, we have partnered with four health systems: the Mayo Clinic Health System, Vidant Medical Group, Carolina’s Healthcare System, and the University of Kentucky and their partners in the Kentucky Primary Care Association. Each system will have one clinic that will continue their practice for patients with multiple chronic conditions as usual. A second clinic will implement the ICAN Discussion Aid as part of their primary care practice for patients with MCC as they see fit.

The teams implementing ICAN will be supported through on-site workshops, follow-up visits, and remote support over a two-year period. During this time, we will be collecting quantitative and qualitative data to assess and to characterize the ways in which ICAN-supported primary care is feasible, improves patient and healthcare teams’ experience of care and communication, while reducing patients’ burden of treatment.

MDM is one of the most important new ideas in medicine in the last 20 years—BMJ
Delivering High-Value Medical Care

Realizing the goal of delivering high-value medical care to all patients is hindered by the lack of clarity and consensus regarding what, precisely, constitutes “high” and “low” value care. Traditionally, “value” has been defined as the quality of care divided by its cost. Proponents of patient-centered care and minimally disruptive medicine (MDM) advocate that the “cost” of healthcare needs to take into consideration not only the dollar amount of the particular treatment or intervention, but also the burden of disease and its treatment on the patient and the patient’s family/social network. Similarly, measures of “quality” need include not only clinical efficacy outcomes but also quality of life, safety of treatment, and other patient-reported outcomes. Finally, the drive toward higher value care needs to be multifaceted, including efforts to improve quality, lower cost, and minimize the burden and waste associated with low value services (defined by services whose quality/outcomes are outweighed by their cost). My goal is understanding how we can deliver higher value care to our patients: what are the treatments and care delivery approaches that produce the best outcomes, have the least financial and non-financial burden/cost, and take into consideration both traditional clinical and patient-reported measures of “quality” and “cost.”

A lot more remains to be done. Clinicians, patients, and policy makers need to recognize the importance of recognizing and reducing low value care, as it is not only wasteful but can also cause real harm. We need to reconsider how we monitor and treat chronic diseases, where doing less may, in fact, be doing “more.” Most of all, we need to engage our patients and our colleagues in honest conversation about the real benefits and risks of available treatment options, and acknowledge when the evidence surrounding these anticipated benefits and risks is uncertain, paving the way toward informed shared decision making and minimally disruptive medicine.

2016 Major Events

Milestones

- **Juan Brito** — Staff appointment
- **Monica Duitch**—PhD
- **Kirsten Fleming**—Bachelor’s of Science
- **Michael Gionfriddo** — PhD
- **Aaron Leppin**—Master’s of Science
- **Marleen Kunneman** — PhD
- **Spyridoula Maraka** —Master’s of Science
- **Naykky Singh Ospina**—Master’s of Science

Promotions

- **Emma Behnken**—Clinical Research Coordinator
- **Kasey Boehmer**—Assistant Professor in the Mayo Clinic College of Medicine and Science
- **Sara Dick**—Instructor in the Mayo Clinic College of Medicine and Science
- **Rene Rodriguez**—Assistant Professor in Mayo Clinic College of Medicine and Science
My time with KER

Sat May 7th—All set, ready to go! Excited to visit the KER Unit for a few weeks. This will be my first visit to the Mayo Clinic, and one I’ve been looking forward to since I became a research collaborator last winter.

Wed May 11th—The Consensus Conference was inspiring and motivating to see so many participants (most of them clinicians) trying to find ways to make SDM work in practice and to improve care for their patients.

Thu May 12th—First day at the KER Unit. What a day! I attended a course on EBM, discussed grants and ongoing research projects with Juan Pablo, Mike and Aaron, and had a brain dump on SDM (old and new thinking) with Victor and Ian. Note to self: replace ‘yes, but…’ by ‘yes, and…’.

Mon May 16th—Started with the weekly huddle this morning: what a great way to get an overview of what each member of the team is working on right now. I attended the Patient Advisory Group to discuss Juan Pablo’s project on SDM in Thyroid cancer treatment. Amazing how this group of patients manages to come together every month (for over 10 years!), to improve the work of the researchers and to make sure that researchers don’t lose the connection with ‘the real world’.

Tue May 17th—Trying to see whether the Choice Awareness project can take us to the moon! Maybe.

Wed May 18th—No trip to the moon (yet), we will have to find other methods to make this journey. I worked with Victor to build my Apollo II. Juan Pablo and Ian joined, which led to a conversational dance of thoughts, (crazy) ideas, hypotheses, and approaches. Best day ever! In spite of, as well as because of the challenges we faced this morning. In the afternoon we came together with group of clinicians and researchers interested in SDM in diagnostics to see how to take this field forward.

May 26th—Last day at the KER Unit. Overwhelmed by how much I learned about the team, the work, the collaborations. And, to be honest: about myself and about my work as a researcher. I’m impressed how a team that advocates kind and careful care manages to practice what they preach and welcome guests in such a warm and friendly way. What an experience.
Expanding Careful and Kind Care Throughout the World

Shrikant Tamhane  
Endocrine Fellow  
(Endocrinology)

Laura Larrea Mantilla  
Research Trainee (KS)

Moain Abu Dabrh  
Research Associate  
(Florida)

Rene Rodriguez  
Research Fellow  
(Mexico)

Annie Leblanc  
Research Associate (Canada)

Khalid Benkhadra  
Research Fellow (Michigan)

Michael Gionfriddo  
PhD Student (Pennsylvania)

Oscar Ponce Ponte  
Research trainee  
(KS)

Maria Kyriacou  
Research Trainee  
(Georgia)

Naykky Singh Ospina  
(Florida)

Spyridoula Maraka  
(Arkansas)

Endocrine Fellows

The Next Generation

Raelee Dick (5/27)

Henry McCoy (2/9)

Ezra Fleming (6/30)

Rene Rodriguez-Gonzalez Jr. (5/4)

Kirsten Thorsteinsdottir Madsen (7/11)
Two large grants:

- Atrial fibrillation grant collaborating with Hennepin County Medical Center and Park Nicollet Medical Center launched April
- Betty and Gordon Moore Foundation ICAN grant launched December

2016 publications: over 155

Tools used every 4 minutes somewhere around the world.

Facebook: over 1290 likes

Twitter: over 550 followers.

MDM website visits: 16,485

SDM website visits: 113,418