Appendix F

T1D Master Intervention Booklet
Proposed Interventions for T1D Design Meeting II

1) Title: Enhanced Registry

Author(s): Keith Marsolo

Brief Description: The Enhanced Registry, captures data directly from EHRs using a "data-in-once" process that records clinical data during a patient encounter; and can be reused for multiple purposes like population management, pre-visit planning, quality improvement and research. The goals of the ICN2 Enhanced Registry are:

- Data Sharing: We analyze data elements and evaluate for multiple purposes
- Best Evidence Care: We drive out variation in care delivery to ensure that each child receives optimal care at every visit
- Drive Discovery: We use "Smart Data" to improve clinical chronic illness care delivery, drive quality improvement and inform comparative effectiveness research

The Enhanced Registry contains the standardized questions and data elements that comprise model care for children and adolescents with certain chronic condition. This standardization enables the data elements to be collected during routine clinical workflows. We eliminate collecting registry data by chart abstraction and double data entry – thus increasing efficiency, reducing costs and accelerating progress towards the Institute of Medicine's vision of a learning health system where the point of care drives clinical care, improvement and discovery

Inspiration: ICN

Secondary Driver(s) impacted:

- Co-production of scientific research questions and research studies between patients, researchers, and clinicians
- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Transparent dissemination of T1D Exchange results to the community
- Effective mechanisms to foster a commons

2) Title: Collaborative QI Network

Author(s): Peter Margolis / Maria Britto

Brief Description:

Collaborative QI Networks have adapted the Institute for Healthcare Improvement Breakthrough Series model to build the foundation for sustaining change and improvement. We work with multidisciplinary clinical teams from the sites involved in the network. Teams come together for face-to-face meetings called learning sessions and connect through collaborative workspaces, emails and monthly calls / webinars. The teams involved in Collaborative QI Networks use registries to track data over time. Teams receive monthly data feedback reports on aggregate and individual progress. These reports serve to identify successful strategies for change and help sites to monitor progress. Using the "all teach, all learn" philosophy, teams discuss reports, address barriers and share what works in learning sessions and monthly webinars.

Inspiration:

Institute for Healthcare Improvement Breakthrough Series model

http://www.cincinnatichildrens.org/service/j/anderson-center/learning-networks/default/

Secondary Driver impacted:

- All participants share responsibility for contributions and results of the network'
- Nurture and facilitate COIN, harness inherent motivation
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Sharing of best practices and learning (real-world and virtual)
- Promotion of evidence-based best practices in clinical care
- Involve patients and families on site improvement teams
- Stratify QI curriculum based on performance and needs
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

3) Title: Population Management Reports & Training

Author(s): Peter Margolis / Maria Britto

Brief Description: Population Management Automated Reporting helps at-risk patients to receive necessary attention between visits. This quality improvement (QI) method enables clinicians' customizable management of care center patient populations and increase patient participation in care. Population Management is an on-demand, automated report produced within a the Enhanced Registry. The main page of the Population Management Report provides both a graphical and tabular breakdown of various measures. Reports can be filtered by provider, secondary provider or diagnosis. And patient level can be drilled down to contain only certain patients, or an entire population. Population Management is one of the most important processes in improving outcomes for patients.

Inspiration: ICN

Secondary Driver(s) impacted:

- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Promotion of evidence-based best practices in clinical care

4) Title: Pre-Visit Planning Reports & Training

Author(s): Author(s): Peter Margolis / Maria Britto

Brief Description: Clinicians can have detailed records of the patient's past visits and review them prior to each new visit. This quality improvement (QI) method helps identify the patient's specific needs over time and helps them achieve their best health. From within the Enhanced Registry, clinicians can generate custom reports on-demand. The automated Pre-Visit Planning (PVP) tool uses registry data to provide recommendations based on patient characteristics. Clinicians either can do a basic review, which provides general recommendations for the patient population; or an advanced review, which provides recommendations based on the disease state. PVP can also allow for a longitudinal review, in addition to showing current data.

Clinicians will have detailed summary information about their patients available at their fingertips when they need it, and before the visit. And they will have a concise, printable tool that can be easily shared with the rest of the care team. Ideally, PVP will be used to guide conversations with patients and their families before they come to clinic so that they can be a part of planning their visit, not just passive participants in it. The result will be more reliable, proactive and individualized care.

Inspiration: ICN

Secondary Driver(s) impacted:

- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Enable patients to easily download and share clinical data with healthcare partners

5) Title: Orchestra

Author(s): Ian Eslick / Lisa Opipari

Brief Description: Orchestra is an app designed to help patients and providers work together to improve health. Patients can use it on their mobile device or computer. The Orchestra app may be a way for a patient and their provider to be better prepared for the visit, so they can make the most out of their time together. Using Orchestra may strengthen the partnership between a patient and their provider, and make health care work better for everyone. What Can a Patient Do with Orchestra?

- Track key symptoms as they are happening and share that information with their provider.
- See, review and share health data with their provider about symptoms that are important to the patient between visits.
- Work with their provider to plan their visit, so everyone can make the most out of their time together.
- Collaborate with their provider to personalize their treatment plan and test new ideas that might improve health.
- Follow key lab results and health metrics over time, learn what they mean and receive personalized questions to discuss with your provider.

Inspiration:

https://hbr.org/2013/10/a-personalized-learning-system-for-improving-patient-physician-collaboration/

Secondary Driver(s) impacted:

- Measure real-time health outcomes, including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement

- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners

6) Title: Data Availability at Clinic

Workgroup Reference #s: QI 1

Author(s): Sarah Corathers & Craig Bobik

Brief Description: System to download data (all kinds of data from pumps, CGM, meters are available) and integrate it automatically into EHR

Inspiration: Tidepool, MyCareTeam, Dexcom Share System, Glooko, Diasend

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners

7) Title: Education Videos

Workgroup Reference #s: QI 2

Author(s): Craig Bobik

Brief Description: Instant access to diabetes education and videos based on need determined from the data/provider (include videos on pump-set up and DKA instructions - hold back zero information!!)

Inspiration: Coursera

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Provide technology-based self-management tools for T1D

8) Title: "Diabetes Mastery" Program

Workgroup Reference #s: QI 3

Author(s): Craig Bobik

Brief Description: a "Diabetes Mastery" program designed for patients to reach knowledge and competence benchmarks that includes incentives/achievements/tests (just like unlocking levels on an x-box game - badging). The transition program would work the same way
Developmentally tailored education, including evidence-based parenting techniques for young children, school-age children, and adolescents.

Reward system for sticking to treatment plan, and personal recognition.

Inspiration:

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Provide technology-based self-management tools for T1D

9) Title: Pre-Visit Planning / Shared Decision Making Combo

Workgroup Reference #s: QI 4

Author(s): Avni Shah / Sarah Corathers

Brief Description: BEFORE appt., patient driven upload of data (all types), have lab-work completed, script issues identified, life-challenges presented, so that appointment is streamlined, more-meaningful and shorter. Proactive appointments where the patient/provider can discuss more than 'housekeeping'

in combination with Shared Decision Making - which would streamline the housekeeping of the medical visit and enable patients to let team now in advance what they want to discuss at the visit- this strategy would allow patient-provider face to face time to be spent on topics of most importance/interest

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Enable patients to easily download and share clinical data with healthcare partners

10) Title: Standardized Billing

Workgroup Reference #s: QI 5

Author(s): Craig Bobik

Brief Description: For all multi-discipinary clinic team members. Standardize billing across clinic that maximizes income while meeting patient needs. Also enables billing for secure messages, group visits and e-visits.

Inspiration:

Secondary Driver(s) impacted:

- Measure & Manage utilization and costs of clinical care

11) Title: Performance Management

Workgroup Reference #s: QI 6

Author(s): Avni Shah

Brief Description: Physician not graded by wRVUs but by quality outcomes (may need to form a strong lobbying group/create policy change)

Inspiration: http://en.wikipedia.org/wiki/Bundled_payment

Secondary Driver(s) impacted:

- Promotion of evidence-based best practices in clinical care
- Measure & Manage utilization and costs of clinical care

12) Title: "All-In-One Center"

Workgroup Reference #s: QI 7

Author(s): Avni Shah

Brief Description: "All-in-one center"(clinic, research, lab, pharmacy, finance expert, diabetes team, community org, hands-on viewing of technology, access to all family resources, group programs, interpreter services, eye tests, driving simulator, school help, etc. Or at least a center which can connect all parts of the wheel so that holistic and streamlined care can easily and quickly be given-not disjointed)

Inspiration: http://www.iorahealth.com/

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Provide technology-based self-management tools for T1D
- Involve patients and families on site improvement teams

13) Title: Self-management Studio/Simulation

Workgroup Reference #s: QI 8

Author(s): Avni Shah / Craig Bobik

Brief Description: A place where active problem solving/learning could be done and tailored to level of learning/development, technology, and interests. Technology play room (a place where you can see all the technologies-old, current, new, in the works. Try it out. Ask Questions. Drop in.)

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams

14) Title: Disruptive Models of Flexible Access (including telemedicine) to Care

Workgroup Reference #s: QI 9

Author(s): Deborah Mullen / Marc Clements / Joyce Lee

Brief Description: Access to staff and education in preferred methods (email, phone, web chat)
Most care contact delivered using cutting-edge mHealth techniques and short telemedical visits so we can deliver the RIGHT care to the RIGHT patient at the RIGHT time (personalized medicine
Components include: No waiting time, video appointments, availability of appointments

Inspiration: http://www.turntablehealth.com/
http://more-distractible.org/dr-rob-lamberts-llc
http://medlion.com/#what-is-dpc
http://pager.com/
http://www.doctorondemand.com/
http://primarycareprogress.org/blogs/16/208
http://www.safetynetmedicalhome.org/resources-tools/implementation-guides

Secondary Driver(s) impacted:

- Policy advocacy for diabetes with payers and policymakers (financial barriers, insurance coverage, costs of medication, patient/family day to day burden)

15) Title: Universal Mobile Application

Workgroup Reference #s: QI 10

Author(s): Marc Clements / Avni Shah / Deborah Mullen

Brief Description: A diabetes care team UNIVERSAL MOBILE APPLICATION (including the functionality that the majority of diabetes care teams would find important, and the ability to plug-and-play their own content)
Everyone can easily download at home (meters, pumps, sensors).

Inspiration: http://onedrop.today/; glooko, https://mysugr.com/; http://www.livongo.com/ Tidepool

Secondary Driver(s) impacted:

- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners
- Enable patients to easily download and share clinical data with healthcare partners

16) Title: Real-Time Risk-Stratification of Patients

Workgroup Reference #s: QI 11

Author(s): Marc Clements

Brief Description: Real-time risk-stratification of patients based on clinically available parameters in EHR and from home devices, with tailored approaches iteratively developed and tested based on risk categories (MAC)
Clinic appointment frequency tailored to the needs of the patient to better distribute care based on risk (i.e., the number needed to treat to prevent complications in 1 individual is MUCH lower when one reduces A1c from 11 to 10 compared to reducing from 8 to 7)

Inspiration:

Secondary Driver(s) impacted:

- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Enable patients to easily download and share clinical data with healthcare partners

17) Title: Transitions

Workgroup Reference #s: QI 12

Author(s): Marc Clements / S. Corathers

Brief Description: Focus on transition of care (defined as transition of the family unit from dependence on diabetes team to independence in pattern management, knowledge and self-advocacy, and other more complex care tasks, as well as eventual transition of the child/adolescent from dependence on parents/diabetes care team to independence in those same domains).
Formal transition clinic with collaborative handoff to adult providers, especially in centers that do not already offer life-long services.
Formal assessment of transition status
Tailoring of education to transition needs assessment (Please consider adding transitions for multiple stages of peds... elementary to middle school, teenager to college, college through adult and adult transition beyond college. Ped levels change as kids grow and this is not recognized in clinic setting until

teen at the earliest. However by not having transitions in place, kids are often either overloaded with responsibility or not provided with enough opportunity).

Inspiration: http://www.diabetes.ucsf.edu/pediatric-care

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

18) Title: Collaborative Sharing of Knowledge and Experience / The ICN Exchange

Workgroup Reference #s: QI 13

Author(s): Marc Clements

Brief Description: Collaborative sharing of knowledge and experience among diabetes centers (via an online usergroup or email group).
Ability to post tools and documents and have users discuss and rate ideas.

Create a communication platform for clinicians, researchers, patients and care givers who belong to the Quality Improvement network to exchange best practices and spread learnings across all participating sites.

Inspiration: ImproveCareNowExchange; Slack

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers •Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams •Co-production of scientific research questions and research studies between patients, researchers, and clinicians •Sharing of best practices and learning (real-world and virtual) •Promotion of evidence-based best practices in clinical care •Co- Production. Promotion of

peer-to-peer connection and communication among patients, caregivers and researchers •Conduct effective internal and external communications •Effective mechanisms to foster a commons

19) Title: Teaching Statistical Process Control to Enable Patients to Better Self-Manage

Workgroup Reference #s: QI 14

Author(s): George Dellal

Brief Description: Statistical process control (SPC) is used to monitor and analyze variation in manufacturing processes. Processes are in control when there are no special causes of variation present. A diabetic's BSL is similar to a process with special cause variation because BSL regulation does not occur automatically. Most diabetics track their BSL daily and may need to modify their food intake, exercise and medication accordingly.
Statistical thinking and the define, measure, analyze, improve and control (DMAIC) method can reduce variation in diabetes management and create control.

Inspiration: http://asq.org/quality-progress/2013/06/quality-in-the-first-person/its-a-process.html?utm_content=&utm_source=email&utm_medium=email&utm_campaign=editorial_hcuta-ed-ms_012015

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection
- Provide patients with access to their own medical data

20) Title: Rise Tool to Facilitate Transition from Peds. to Adult

Workgroup Reference #s: QI 15

Author(s): Sarah Corathers

Brief Description: During Clinic: CDE/Clinician exposes patient to short Knowledge Assessments and Responsibilities Checklists on treatment, disease and/or lifestyle-focused topics delivered in print/digital formats
Based on the results, the clinician remediates knowledge and skill gaps and the patient identifies a transition goal
A specific plan to address the transition goal is captured on an Action Plan to guide the patient's home care between clinic visits
Patient implements goal (with help of caregiver) and accesses a web site with a library of videos and other resources for on-demand education from home
At the next clinic visit, the patient's progress is reviewed and new assessments/checklists are delivered

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers

21) Title: Care Coordination and Health Coaching

Workgroup Reference #s: QI 16

Author(s): Avni Shah

Brief Description: Deploying care coordinators and coaches to advocate for patients, coordinate their care and coach them

Inspiration: http://www.iorahealth.com/model/
Michael Harris - NICH
Alan Glasseroff - in Standford
http://www.safetynetmedicalhome.org/resources-tools/implementation-guides
https://www.dropbox.com/s/hlcb4qwvmckvan4/bennet%20healt%20coaching.pdf?dl=0

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers
- Measure & Manage utilization and costs of clinical care

22) Title: Community Programs to Build a Culture and Community of Health

Workgroup Reference #s: QI 17

Author(s): Joyce Lee

Brief Description: e.g. girl boy scout troups, big brothers / sisters for T1D

Inspiration: http://www.houstonchronicle.com/life/article/Girl-Scouts-is-just-the-medicine-for-these-troops-6119688.php?t=8b72041d90&cmpid=email-premium
dyf.org
carbdm.org,

Secondary Driver(s) impacted:

- Build leadership knowledge, skills, and commitment among all T1D participants •Align all participants around a compelling vision, linked to local actions •Shift narrative from health care as “service delivery” to “shared work” •Nurture and facilitate COIN, harness inherent motivation

•Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams •Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

23) Title: MDI Calculator and Log

Workgroup Reference #s: QI 18

Author(s): Sarah Corathers / Justin Masterson

Brief Description: Excel based tool that enables accurately calculating insulin doses and sharing this information with multiple caregivers. Gives MDI patients the same accuracy of dose calculation as those on insulin pumps, allows sharing of real-time updates across multiple caregivers

Inspiration: https://docs.google.com/spreadsheets/d/11I-kL2SP9kw_kWGj41roCwdkGKLwfrC4by4ET3Ed7gA/edit?usp=sharing_eid

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams •Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data) •Create reliable processes for high quality data collection •Share real-time outcomes data in a transparent manner to facilitate learning & improvement •Provide patients with access to their own medical data •Provide technology-based self-management tools for T1D

24) Title: Service Design Tools

Workgroup Reference #s: QI 19

Author(s): Joyce Lee

Brief Description: Doing design activities in clinic could be an interesting tool for engagement beyond "tell me about Your blood sugars". here is an example of one i did https://twitter.com/joyclee/status/567338623352442881

Inspiration: https://twitter.com/joyclee/status/567338623352442881

http://www.dawnstudy.com/News_and_activities/Documents/Childrens%20circle%20tool.pdf

Secondary Driver(s) impacted:

- Nurture and facilitate COIN, harness inherent motivation
- Collaborative clinical interactions between patients and providers
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams

25) **Title**: Patient Passport & Shared Decision Making

Workgroup Reference #s: QI 20, CI 58

Author(s): Joyce Lee

Brief Description: Shared decision making (SDM) is a collaborative process that allows patients and their providers to make health care decisions together, taking into account the best scientific evidence available, as well as the patient's values and preferences.

SDM honors both the provider's expert knowledge and the patient's right to be fully informed of all care options and the potential harms and benefits. This process provides patients with the support they need to make the best individualized care decisions, while allowing providers to feel confident in the care they prescribe.

Patient Passport: Written in the patient's voice, the Patient Passport uses pictures and simple language to start conversations and to help providers see their patients as persons with stories beyond their illnesses. The content and style are intended to make frontline staff's work simpler and more effective by presenting critical information about the patient—such as medications, conditions, and what works or doesn't work to cope with health conditions—in a concise and meaningful way.

Inspiration: http://www.qualityforum.org/Patient_Passport.aspx

Inspiration: http://www.sciencedirect.com/science/article/pii/S0738399114003012
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3445676/
http://www.nejm.org/doi/full/10.1056/NEJMp1209500

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement

26) Title: Institutional Parent-to-Parent Mentoring Programs

Workgroup Reference #s: QI 21

Author(s): Avni Shah

Brief Description: Organized through clinics, newly diagnosed patients and families are paired with "verteran" families who offer support and guidance

Inspiration: http://www.stanfordchildrens.org/en/patient-family-resources/parent-mentor-program
http://www.nationwidechildrens.org/connecting-families

Secondary Driver(s) impacted:

- Nurture and facilitate COIN, harness inherent motivation
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

27) Title: Providers Decide what are Formulary RXs for Insurances/Medicaid

Workgroup Reference #s: QI 23

Author(s): Avni Shah

Brief Description: Form a strong lobbying group/create policy change

Inspiration:

Secondary Driver(s) impacted:

- Establishment of strategic partnerships with advocacy groups (online and offline)
- Policy advocacy for diabetes with payers and policymakers (financial barriers, insurance coverage, costs of medication, patient/family day to day burden)
- Measure & Manage utilization and costs of clinical care

28) Title: Shared Medical Appointments (SMA) / Group Clinics / Visits

Workgroup Reference #s: QI 24, CI 57, CI 62, CI 63, CI 64, CI 65

Author(s): Sarah Corathers / Avni Shah, Bennet Dunlap, Craig Bobik

Brief Description: Group visits to foster peer to peer support (for teens, parents and adults as well as different stages, e.g. new onset diagnosis, transition, pregnancy). SMA result in positive peer-peer interaction; increased conversation about lifestyle and diabetes in group visit setting.

Inspiration: TEAM clinic at Barbara Davis Center:
http://spectrum.diabetesjournals.org/content/28/1/68.short?patientinform-links=yes&legid=diaspect;28/1/68

Brief Description: Do Diabetes Group Visits Lead to Lower Medical Care Charges? Conclusions: After controlling for endogeneity via estimation of a treatment effect model, GVs statistically significantly reduced outpatient visit charges. Estimation of a separate treatment effect model of specialty care visits indicated that GVs likely substitute for more expensive specialty care visits.

Inspiration:

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0CC4QFjAC&url=http%3A%2F%2Fwww.academyhealth.org%2Ffiles%2F2008%2Fmonday%2Fwashington4%2F6_9_2008_9_45%2Fmagruderk.ppt&ei=7H_rVLn7KpDcgwTbn4ToAQ&usg=AFQjCNGLAOrlTxc21G1zN0I0jebwwbwg-g&sig2=9FzZC7aP6YiQaWlWKp3cIw&bvm=bv.86475890,d.eXY

Am J Manag Care. 2008;14:39-44

Brief Description: Evaluation of a program of group visits and computer-assisted consultations in the treatment of adolescents with Type 1 diabetes. At the conclusion of the study, there were no statistically significant differences in HbA1c between the intervention and control arms (Graue et al., 2005). However, in older adolescents, ages 14-17 years, HbA1c decreased significantly (P=0.019, mean 0.63, 95% CI 0.1, 1.1) in the intervention group and in the younger adolescents, 11-13 years HbA1c increased significantly in the control arm (P=0.046, mean 0.56, 95% CI 0.0, 1.1) but not the intervention arm (Graue et al., 2005). Suggesting that this intervention had a positive impact on HbA1c but the impact was small and not statistically significant. Both adolescents and parents who participated in the group visits were satisfied with the intervention and both groups perceived the peer support to be useful and positive (Graue et al., 2005).

Inspiration: http://onlinelibrary.wiley.com/doi/10.1111/j.1464-5491.2005.01689.x/abstract?deniedAccessCustomisedMessage=&userIsAuthenticated=false

http://www.ajmc.com/publications/issue/2008/2008-01-vol14-n1/Jan08-2784p39-44

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

29) Title: Integration of Psychosocial Screening and Supports into Routine Clinical Care

Workgroup Reference #s: QI 25

Author(s): Sarah Corathers

Brief Description: infrastructure of clinic needs to acknowledge impact of diabetes and make discussion of family, school, work, life, social, emotional concerns as important at insulin adjustments

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers

30) Title: Patient-Centered Clinic Design

Workgroup Reference #s: QI 26

Author(s): Amy Ohmer

Brief Description: Physical space of clinic and virtual space of websites and ways for patients/families to interact with care team- empowerment through goal setting.

6 Principles of Patient Centered Clinic Design:

1.) Welcome your patients before they step through the door; how-to schedule appts or contact the appropriate person, rotating banner ads for welcome, enter the vitals clinic, in the clinic, checking in and checking out, blood sugar review, insurance questions, and more.

2.) Build an informative and useful web page with ANY/ALL information available and updated. This includes information on subjects such as 'NightScout' , Tidepool, research, stress relievers, sick day guidelines (specific).

3.) Create an environment based on 'team' and 'goal' setting.

4.) Have detailed information on appropriate products and tools for improving T1D care. Links to ALL products, cgms, pumps, meters, infusion sites, adhesives, pens, needle inserters, etc.

5.) Incorporate all aspects of care under one roof; including a transition coordinator, celiac clinic, psychology, social work, optometrist, podiatrist in an effort to provide support immediately for all situations.

6.) Encourage communication with emails, clinic functions like back to school night, back to college night, camp registration, peer-to-peer mentoring and meet the staff.

Clinicians are trained in Health literacy so that they do not use medical jargon but rather communicate in simple terms to their patients and families.

Inspiration: Madison Clinic:http://madisonclinic.ucsf.edu/
Yale: http://medicine.yale.edu/pediatrics/endocrinology/cdp/index.aspx

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Enable patients to easily download and share clinical data with healthcare partners

- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

31) Title: Insurance Education & Support

Workgroup Reference #s: QI 27

Author(s): Craig Bobik

Brief Description: Counselling, education and training offered to help families navigate insurance regs and provide skills and agency to empower them as advocates.

Inspiration:

Secondary Driver(s) impacted:

32) Title: Covered Diabetes Education

Workgroup Reference #s: QI 28

Author(s): Craig Bobik

Brief Description: Negotiate 100% diabetes education coverage with insurance companies

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams

33) Title: Transforming T1D Glycemic Targets – Moving Beyond A1c to Utilizing Each Individual's Glucose Profile (Glucose Snapshot – AGP) to help them live well with diabetes and improve glucose control

Workgroup Reference #s: QI 29

Author(s): Rich Bergenstal

Brief Description: a. Care will move from long-term population based care metric of A1c to individualized care target of Time in Target Range (TIR) for each person with T1D.
b. Improving Time in Range (70-180 mg/dL) while avoiding hypoglycemia is the new target
c. Movement toward every T1D patient having access to a continuous glucose monitor (CGM) – to enable AGP generation when needed.
i. Until all have CGM – instruction on using cloud enabled SMBG – so AGP can be generated
d. Every patient and health care professional caring for T1D diabetes patients will understand the Ambulatory Glucose Profile (AGP, glucose snapshot, glucose profile, standardized glucose report) and has easy access to generating or viewing an AGP/glucose snapshot when needed
e. Implement iPad based Tonic software tool to collect key variables that need regular updating

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
  Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners
- Provide technology-based self-management tools for T1D

34) Title: Transforming Clinic Visit Flow and Incorporating Shared Decision Making for T1D – Every Patient Every Visit will have AGP generated, explained and used for Shared Decision Making Management Plan

Workgroup Reference #s: QI 30,

Author(s): Rich Bergenstal, Joyce Lee

Brief Description: AGP generated from CGM or SMBG device for all patients before or during clinic
i. There are many good universal uploaders of glucose data
1. Tidepool, Glooko, Diasend, Sweetspot – we need to ensure each of them incorporate AGP into output and select the one that fits IT needs and budget of clinics
ii. At this time there is only one internationally proposed standardized glucose report that has defined glucose metrics and std. visualization (EKG of glucose data) – that is the Ambulatory Glucose Profile – AGP.

iii. There are also some diabetes education or self-management software products that could be programed to include AGP into their training and help with self-management of glucose control or a disease management firm could work with individuals with T1D to help improve glucose control.
1. For example – WellDoc / BlueStar http://www.welldoc.com/

b. Agreed upon key glucose metrics from AGP stored in ERH for tracking and comparison from visit to

visit
i. TIR 70-180mg/dl but also time <70, <60 and <50 and time >180, 250 and 400
ii. Estimated A1c and a marker of glycemic variability (IQR, % CV)
c. Use AGP to guide shared decision making management plan
i. Print AGP
ii. On time line below AGP make the usual – wake and sleep time, meal times, insulin dose time and amount (MDI) or automatically appears for pump pts, usual exercise time(s)
1. Over time use iPad based Tonic to update insulin doses or change meal times
2. Pre- Tonic implementation –use handwritten guide below AGP for key data
iii. Systematic review of AGP
1. Are my glucoses mostly in target zone and glucose profile flat and consistent?
2. Where in day do I have trouble with hypoglycemia?
3. Where in day do I have trouble with dangerously high glucoses?
4. Where are my glucoses most variable and why?
a. Food, exercise, stress, alcohol, other
5. What should I work on before next visit? Do I change my insulin doses?

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners
- Provide technology-based self-management tools for T1D

35) Title: Transform Between Visit – Self-Management and Communication with HCP as needed – starting with AGP review

Workgroup Reference #s: QI 31

Author(s): Rich Bergenstal

Brief Description: a. Every patient will be instructed on how to generate AGP at home and how to send that AGP to clinic as needed
i. Use cloud based automatic glucose data transmission (where possible) –with software that generates and updates AGP as data is collected (2 wk intervals).
1. DexCom Share CGM – can go straight to cloud for pt or HCP use. Other CGM systems will be cloud based soon.
2. For SMGB, Roche Connect, J&J VerioSyn, TelCare, and Foracare – are all SMBG systems that go straight to cloud – 2 are currently working on incorporating AGP into software
ii. Pts trained on looking at AGP making adjustments in lifestyle or insulin if they are comfortable, or contact HCP by sending AGP (and updated insulin dosing) and asking for help.
iii. Again – software exists for diabetes education and help with self-management like WellDoc/BlueStar and the universal uploading systems – that are being to develop guided clinical decision making advice.

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners
- Provide technology-based self-management tools for T1D

36) Title: Transform Clinical Research and QI Addressing Improving Glycemic Control in T1D – by utilizing standard glucose data collection, analysis and reporting and eventually guided clinical decision making.

Workgroup Reference #s: QI 32

Author(s): Rich Bergenstal

Brief Description:

Inspiration:

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners
- Provide technology-based self-management tools for T1D

37) Title: Participatory Design/Making of Diabetes Technology for Diabetes Group Visits

Workgroup Reference #s: QI 33,

Author(s): Joyce Lee, Bennet Dunlap

Brief Description: Group visits for children with adolescents and diabetes that encourage them to learn how to program and use technology for creating games about diabetes, facilitating their learning about diabetes, allowing them to become makers, in the setting of peer to peer learning.

Inspiration: http://www.healthdesignby.us/innovations-in-diabetes-education

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

38) Title: Reducing Unnecessary Physician Work Through in-box Management

Workgroup Reference #s: QI 34

Author(s): Peter Margolis

Brief Description: Tasks previously performed by receptionists, pharmacists, nurses and transcriptionists have been transferred to the physician with many EHR implementations. In addition, new work associated with security, attestation and messaging has often become the sole responsibility of the physician, adding to the length of the work day and detracting from physician satisfaction. In several practices the nurse or MA filters all of the electronic and paper information, passing on to the physician only that information which specifically requires a physician's involvement.

Inspiration:

Fairview: Fairview has decreased the amount of inbox work from 90 minutes to only a few minutes per day for many of their physicians. All messages are first directed to the MA or RN, who filters out normal lab results, prescription renewals or information requests that can be managed by protocol. Electronic messaging is often replaced by more time-efficient verbal messaging between clinical assistant and physician.

Martin's Point: The MAs and nurses are masters of desktop management, authorized to take tasks off the provider's work list: calling patients back, reviewing messages and passing work off to the scheduler. The goal is for the physician to see only physician level work; the rest is delegated to other members of the team.

Secondary Driver(s) impacted:

- Measure & Manage utilization and costs of clinical care
- Attract, develop, and retain staff to meet existing and anticipated demands

39) Title: Using Technology to Save Time and Improve Communication

Workgroup Reference #s: QI 35

Author(s): Peter Margolis

Brief Description: Many practices have not fully leveraged technology to improve care and work life. Attention to the efficiency of individual tasks can save valuable human resources, which can then be redeployed to more meaningful work. Use of email and phone visits can increase communication with patients.

Inspiration:

University of Utah-Redstone: Staff wears a wireless communication device, allowing

individuals to quietly connect with other members to waste less time searching each other.

The Ambulatory Practice of the Future (APF) uses kiosks, similar to airline kiosks, for patient check-in and co-payment collection. This frees the greeter to introduce the practice's portal, where a patient can review results and consultation notes, and securely email their physician.

Group Health: With the medical home transformation, Group Health decreased the patient panel size and has made a major change in the physician daily template, moving from an average of 22 face-to-face visits per day to about 14 face-to-face visits plus 4 telephone visits.

In Search for Joy in Practice- http://www.annfammed.org/content/11/3/272.full

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Create reliable processes for high quality data collection
- Measure & Manage utilization and costs of clinical care
- Attract, develop, and retain staff to meet existing and anticipated demands

40) Title: Eliminating Time-Consuming Documentation through in-visit Scribing, Assistant Order Entry, and Information Management

Workgroup Reference #s: QI 36

Author(s): Peter Margolis

Brief Description: Physicians across our study sites report spending about two hours per day on visit note documentation and some report spending up to an hour per day on computerized order entry. This time could be reduced if the concept of "sharing the care" is extended to nurses and/or MAs by empowering them to become an integral part of the visit by scribing the note, entering orders, preparing the after visit summary and reinforcing the plan with the patient.

Inspiration:

Cleveland Clinic: Dr. Kevin Hopkins works with two MAs. After completing an expanded

rooming protocol, the MA returns with the physician to record the note while the physician talks with and examines the patient. Dr. Hopkins discovered that the collaborative nature of the interaction was well accepted by patients. “I encouraged the MAs to interact with the patient and be a part of the conversation. I told them ‘if you think of something and I don’t, feel free to bring that up.’ We are making this into a real team care model.”

http://www.annfammed.org/content/11/3/272.full

Secondary Driver(s) impacted:

- Measure & Manage utilization and costs of clinical care
- Attract, develop, and retain staff to meet existing and anticipated demands

41) Title: Adding Capacity by Sharing the Care Among the Team

Workgroup Reference #s: QI 37

Author(s): Peter Margolis

Brief Description: For many practices, demand exceeds capacity and patients cannot reliably see their own primary care physician the same day or day after a need arises. Most patients are not receiving all recommended prevention and chronic illness care. Improving access to care requires building additional capacity into the practice. Many practices have accomplished this by transforming the roles of MAs, licensed practical nurses (LPNs), registered nurses (RNs) and health coaches so that they assume partial responsibility for elements of care. This kind of team-building is called “Share the Care.” In addition, some practices have added an extended care team of social workers, behaviorialists, nutritionists and

pharmacists, usually working with several clinician-MA teamlets, to provide more comprehensive services to patients.

Inspiration:

Expanding the MA/Nurse rooming protocol at the North Shore Physicians Group (NSPG). At NSPG the MA role has been transformed from a person who answers phones, escorts patients and obtains vitals, to a partner who helps to provide team-based care. "Rooming" a patient has been expanded from a three minute to an eight minute process, which now includes recording current medications and allergies, agenda setting, form completion and closing care gaps.

Clinica Family Health Services: At Clinica medical assistants have taken on care responsibilities for diabetes and immunizations, empowered through standing orders. For example, the medical assistant performs point of care A1c testing, diabetic foot exams, arranges appointments for retinal exams (done with a retinal camera during a group visit) and administers immunizations using EHR decision support. Medical assistants at Clinica use EHR templates to take a detailed, condition-specific history of present illness for chronic illnesses such as diabetes, asthma and ADHD, and perform substance abuse and mental health screening. These screens generate a note that the provider can quickly review. The MA pre-visit takes 10-15 minutes.

http://www.qualishealth.org/about-us/our-services

In Search of Joy in Practice- http://www.annfammed.org/content/11/3/272.full

Secondary Driver(s) impacted:

- Measure & Manage utilization and costs of clinical care
- Attract, develop, and retain staff to meet existing and anticipated demands

42) Title: An App that calculates the appropriate insulin dose based off a picture of the Food

Reference ID:

Author(s): DD1

Brief Description: Patients can take a picture using an App that automatically tells them impact on glucose level and insulin intake

Inspiration: DD1

SRI Ceres Project
http://health.howstuffworks.com/wellness/diet-fitness/information/new-phone-app-computes-calories-by-taking-a-picture-of-your-meal.htm

Secondary Driver(s) impacted:

- Create reliable processes for high quality data collection
- Provide technology-based self-management tools for T1D

3) Title: Reducing Work Through Pre-visit Planning and Pre-appointment Labs

Workgroup Reference #s: QI 38

Author(s): Peter Margolis

Brief Description: Primary care visits are often disorganized and rushed. Because of incomplete and poorly organized information and the need to address multiple issues, the complex task of managing acute symptoms, chronic illnesses and prevention issues becomes chaotic and stressful. Many high functioning sites have learned that a pre-planned visit and a pre-clinic huddle can reduce the total volume of work to be done, save time and improve care.

Inspiration:

Fairview: At Fairview the medical assistant (MA) conducts a pre-visit phone call two days before the appointment to address medication reconciliation, agenda setting, lifestyle issues, advanced directives, depression screening, and updates to social and family histories. MAs place these calls during short breaks between rooming throughout the day.

Mayo Red Cedar: At Mayo Red Cedar one of Dr. David Eitrheim's two nurses performs chart reviews a week before the patients' appointments, and orders condition-specific lab and cancer screening by protocol. Because of this pre-visit planning Dr. Eitrheim routinely has test results at the time of the appointment, allowing him to explain the results face-to-face, engage the patient in shared decision making, and eliminate an hour or more of post-appointment results reporting per day.

Ambulatory Practice of the Future (APF): Each clinic session begins with a team huddle: the nurse practitioner, nurse, MA, health coach, scheduler, greeter and two physicians review the day's list of patients on a large wall-mounted computer monitor, including patients in the hospital and patients scheduled for phone visits.

In Search of Joy in Practice- http://www.annfammed.org/content/11/3/272.full

Secondary Driver(s) impacted:

- Create reliable processes for high quality data collection
- Enable patients to easily download and share clinical data with healthcare partners
- Measure & Manage utilization and costs of clinical care
- Attract, develop, and retain staff to meet existing and anticipated demands

44) Title: Patient/Caretaker Training (at Diagnosis)

Workgroup Reference #s: CI I, CI 2, CI 3

Author(s): Kerri Sparling, Bennet Dunlap

Brief Description: Training videos and other modalities to assist patients and caretakers in understanding diabetes and how to begin to grasp with all of the changes in life this will mean.. to manage the burden of the illness. Help the patient understand all of the medical lingo and everything else coming at the patient/caretaker as they are sleep deprived and at the beginning of the 'journey'. Training is completely patient centric… in terms they can understand and not too much at the beginning. How to phase the information over the initial time period of diagnosis?

Inspiration: http://www.nytimes.com/2015/01/26/opinion/midnight-three-six.html?_r=0, http://diatribe.org/our-reaction-new-york-times-midnight-three-and-six?utm_source=diaTribe&utm_campaign=8dccee5735-diaTribe_Issue_78&utm_medium=email&utm_term=0_75cdadd67f-8dccee5735-410703625

http://www.wsj.com/articles/the-future-of-medicine-is-in-your-smartphone-1420828632?utm_campaign=KHN%3A+First+Edition&utm_source=hs_email&utm_medium=email&utm_content=15543103&_hsenc=p2ANqtz-9U-4A7IUmS_iUYd27OeB_mVGYV6u2fXDa9Go-MKGgnRcQD2lDT8sALOW2XZ9XZpFj3o5__4KeR6Om87KDchqaN755AiQ&_hsmi=15543103

http://www.ydmv.net/2008/01/pain-in-alliteration.html

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and provider

45) Title: Improved Communication between Patient and Provider: Virtual Physician Visits (E Visits/ Phone Visits)

Workgroup Reference #s: CI 4, CI 6, C20

Author(s): Jen Powell

Brief Description: A secure video consultation with a physician via smartphone at the same cost as the typical co pay. Large employers beginning to adapt this modality. Large consulting firms forecast that virtual physician visits will soon be the norm. E visits can facilitate more continuous communication rather than the current episodic care model.

It might be cheaper for us to give a smartphone and a service contract to people rather than to have them go to emergency rooms and be hospitalized; one day in the hospital is $4,500 in the U.S. I think the cost of that tradeoff is eventually going to be borne out.

Inspiration: http://www.wsj.com/articles/the-future-of-medicine-is-in-your-smartphone-1420828632?utm_campaign=KHN%3A+First+Edition&utm_source=hs_email&utm_medium=email&utm_content=15543103&_hsenc=p2ANqtz-9U-4A7IUmS_iUYd27OeB_mVGYV6u2fXDa9Go-MKGgnRcQD2lDT8sALOW2XZ9XZpFj3o5__4KeR6Om87KDchqaN755AiQ&_hsmi=15543103

http://www.npr.org/blogs/health/2015/01/12/376741693/imagining-a-future-when-the-doctors-office-is-in-your-home?utm_campaign=KHN%3A+First+Edition&utm_source=hs_email&utm_medium=email&utm_content=15562094&_hsenc=p2ANqtz-8aL9lH3e8dtRtOFj4hzObmQuskBESn0Lq4GFW3U_ztgEgfOj_vjf2yMEQuXtCmcW1qCp101QDMfvpwoD1KYyGcwdHZSg&_hsmi=15562094

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide technology-based self-management tools for T1D

46) Title: Using Patient Portals as an Effective Support Tool for Patients/Caregivers

Workgroup Reference #s: CI 6, CI 53, CI 81

Author(s): Maria Britto, Jen Powell, Joyce Lee

Brief Description: Through interviews, we sought to describe parents' perceptions of a patient portal for the management of their child's chronic illness. Parents perceive patient portals as beneficial, providing easier communication with care providers, convenience, a sense of control, reduced anxiety, and reassurance.

Brief Description: (From PCORI): Strategies from Prochaska's Transtheoretical Model* (Stages of Change Model) were used to design the portal and key materials to help people progress toward participation (Use of MS Portal, iConquer). We posed the question: Five stages: Pre contemplation, contemplation, preparation, action and maintenance. Design, userability and content considerations based on best practices. What defines best-in-class communications to engage people living with MS and other conditions?

Brief Description: Scrapes patient portal (EMR) to organize and provide results and records to patient in personalized visualizations

Inspiration: J Pediatr 2013;163:280-1

http://insidemystory.com/2014/11/20/you-i-conquer-ms/

https://picnichealth.com/

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Enable patients to easily download and share clinical data with healthcare partners
- Provide technology-based self-management tools for T1D

47) Title: Creating a *whole* patient centered medical home/team to include psycho social support

Workgroup Reference #s: CI 7, CI 23

Author(s): Kerri Sparling

Brief Description: Care team to include psychosocial part of the diabetes care team.

How the to do list of diabetes includes more than just pricking fingers and taking insulin. Care system need to be inclusive of all the things a patient has to do. And why does a full onset adult need to have a c-peptide to prove they are still T1D. That is an intrusion on the patient and a waste of resources because there is no cure of T1D.

Inspiration: http://www.ncbi.nlm.nih.gov/pubmed/22961115; http://sixuntilme.com/wp/2015/01/22/twitter-rant/

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Promotion of evidence-based best practices in clinical care
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

48) Title: Empathy Training for Providers

Workgroup Reference #s: CI 8, CI 9, CI 47, CI 67

Author(s): Marissa Town, Max Clermont, Bennet Dunlap

Brief Description: "Any patient in a hospital, when we take their clothes away and lay them in a bed, starts to lose identity; after a few days, they all start to merge into a single passive body, distinguishable … only by the illnesses that brought them there." The disconnect between our healthcare system and the humanity and individualized patient and family." "Personalization is a key factor in engaging patients in their health and keeping them motivated to maintain healthy behaviors,". Tools to facilitate personalized learning.

"We talk about illness in a way that implies blame for the patient."

Brief Description: Doctors Learn How to Say What No One Wants to Hear: Using actors to help dr practice sharing tough news.

Inspiration: http://www.theatlantic.com/magazine/archive/2014/11/doctors-tell-all-and-its-bad/380785/?single_page=true

http://www.amybucherphd.com/when-emotions-drive-health-behaviors/

http://www.wsj.com/articles/the-health-care-industry-is-pushing-patients-to-help-themselves-1402065145?autologin=y

http://www.nytimes.com/2006/01/10/health/10teac.html?pagewanted=all&_r=0

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and provider

49) Title: Patient Empowerment

Workgroup Reference #s: CI 10, CI 11

Author(s): Marissa Town

Brief Description: Patient empowerment refers to a process where people gain greater control over decisions affecting their health. The principle is to enable patients to be the primary decision makers in managing their health condition, based on the idea that patients are more motivated to initiate and sustain behavioral changes of their own choice, rather than changes prescribed by others. Person centered, coordinated care which understands and supports individual is vital. Clinical attitudes may be dismissive of patient efforts.

Inspiration: http://www.diapedia.org/management/patient-empowerment;

http://www.england.nhs.uk/house-of-care/

Secondary Driver(s) impacted:

- Build leadership knowledge, skills, and commitment among all T1D participants
- Collaborative clinical interactions between patients and provider
- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams

50) Title: Reinforcing Patients to be in Control of Their Diabetes at the Office Visit

Workgroup Reference #s: CI 12, CI I3

Author(s): Michael Seid, Bennet Dunlap

Brief Description: Dominick Frosch**: "**Much has been written about how to engage and motivate patients to self manage chronic disease. Some of my work as a researcher has touched on this. Wagner's chronic care model assumes that interprofessional teams are better at guiding and motivating patients than single physicians. But lost in this is how health professionals interact with patients. Over time I've repeatedly found that my concept of a healthcare team—with me as the patient at the centre—is not shared by my healthcare professionals. They don't put me at the centre and often fail to communicate well with one another."

Scott Johnson: "In fact, one of the things he said will stick with me for the year…"I can see from your eyes that you exercise a lot!" Wow! I have never felt more proud of myself for all of the hard work I put in with my diabetes management, at the gym, and on the bike.

Inspiration: http://www.bmj.com/content/350/bmj.g7767?etoc=

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and provider

51) Title: The Importance of Clinical Trials in Advancing the Field of Knowledge

Workgroup Reference #s: CI 14, C 38

Author(s): Bennet Dunlap, Max Clermont

Brief Description: *"Why Clinical Trials Matter to People with Diabetes".* Clinical trials means better drugs and devices. Better drugs and devices mean better treatments. Better treatments mean longer, healthier lives. Longer, healthier lives means more time with the people you love. Clinical trials = love. FDA talks of importance of trials, both blogs speak to importance of PWD participating.

Inspiration: http://theperfectd.com/2015/01/20/why-clinical-trials-matter-to-people-with-diabetes/
http://blogs.fda.gov/fdavoice/index.php/2015/01/a-cdrh-priority-clinical-trials-in-the-u-s/

Clinical Trial Design Tutorial, A Tutorial for Research Advocates, Advocate Institute.
http://www.researchadvocacy.org/tags/clinical-trial-design

http://www.wsj.com/articles/design-power-patients-play-researchers-in-drug-trials-1412034067

Secondary Driver(s) impacted:

- Co-production of scientific research questions and research studies between patients, researchers, and clinicians
- Reduce barriers for sharing and learning by applying open science concepts (e.g. standard IRB language, data sharing policies, contests, etc.)
- Introduce methods of design thinking and novel methods of collaboration (social media) for engaging patients, clinicians and researchers in the identification, prioritization, and ideation of novel research and innovation projects
- Develop guidelines for research, ethical, and privacy issues

52) Title: Training for the Adolescent with Diabetes

Workgroup Reference #s: CI 15

Author(s): April Mack-Williams

Brief Description: Adolescents with Type 1 Diabetes: parental perceptions of child health and family functioning and their relationship to adolescent metabolic control **.**"The pressures and changes of normal adolescent development can conflict with the self- awareness, restraint and orderliness needed to manage living with a chronic disease,and these tensions create a platform for significant personal and family stress and even mental illness.

Inspiration: http://www.biomedcentral.com/content/pdf/1477-7525-11-50.pdf
http://www.hqlo.com/content/11/1/50

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Provide technology-based self-management tools for T1D

- Promotion of evidence-based best practices in clinical care
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

53) Title: Self Care of the Caretaker: Importance of Psycho Social Aspects of the Illness as it relates to the Caretaker

Workgroup Reference #s: CI 16, C 17

Author(s): Bennet Dunlap

Brief Description: Your child has diabetes. That sucks. Lets talk about you. Your life has changed. You're feeling confused, tired overwhelmed and more. That's about normal. You are trying not to let your child see all of that just like they are trying to let you see that same feeling in them.

Patient Training should go beyond the mechanics of diabetes care and include psycho- social aspects of t1 and being just an effective parent because diabetes will stress the parent patient relationship even more. An AP / MTV poll comes to the conclusion that family ties are key to youth happiness. How do you get diabetes out of the way and pay attention to your kids? My buddy Mark says: "BAM! Dee is wrecking your life, and will continue to do so until you stop listening to Dee and turn your attention back to your kids".

Inspiration: http://www.ydmv.net/2007/08/family-ties-key-to-youth-happiness.html

http://www.ydmv.net/2008/03/newbie-advice-long-run.html

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

54) Title: Peer-to-Peer Support

Workgroup Reference #s: C18, CI 34, CI 35, CI 40, CI 44, CI 76

Author(s): Bennet Dunlap, Marissa Town

Brief Description: "If I could, I would tell you although you might not believe it right now, you will be okay…" Julie Keon. She wrote that as a mom at children's hospital looking at another mother. Julie offers a perfect description of why am committed to the diabetes online community (DOC). She explains it in that simple idea, I want to help others believe they will be okay.

Public Ignorance, Judgement issues and most importantly how do we get people to deal with the stressors of diabetes and even further turn it into a positive. How do you encourage optimism?

Lovely piece that seeks to flips the adverse psycho-social stresses and see a positive from it. Useful idea to encourage in both educating patients and peer to peer contacts.

"Girl Scouts is just the medicine for these troops"

"My Story: When Diabetes Burn Out Strikes Diabetes Burnout- "I haven't had a day off from type 1 diabetes in 37 years" "In those moments of diabetes exhaustion...it's hard to shake off the diabetes muck of it all". She talks about finding support not only in her healthcare team, but with family, friends and the diabetes online community.

How to give people the feeling of support and community experienced at FFL and diabetes camps. How do we get this to people who are underserved? Can we translate that feeling into the healthcare industry?

Inspiration: http://www.ydmv.net/2012/02/who-best-to-say-you-will-be-okay.html

http://asweetlife.org/feature/10-things-not-to-say-to-a-person-with-diabetes/

http://www.whatiwouldtellyou.com

http://www.huffingtonpost.com/riva-greenberg/chronic-illness_b_4734230.html?view=print&comm_ref=fals

http://www.findapsychologist.org/my-story-living-with-diabetes-burnout-by-kelly-kunik/

http://www.textingmypancreas.com/2011/07/cwd-ffl-that-feeling.html

http://www.houstonchronicle.com/life/article/Girl-Scouts-is-just-the-medicine-for-these-troops-6119688.php?t=8b72041d90&cmpid=email-premium

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

55) Title: Affordable Diabetes Care for People Over 65

Workgroup Reference #s: C19, C 73

Author(s): Bennet Dunlap

Brief Description: As patients with diabetes live longer, CMS becomes a barrier to the care that helps people live longer. Payment systems need to be aligned; Medicare will not pay for CGM.

Medicare's Competitive Bidding program negatively impacts insulin pump users.

Inspiration: http://thehill.com/blogs/congress-blog/healthcare/217583-dont-take-away-my-access-to-life-saving-diabetes-technologies

http://diabetesstories.com/2015/02/22/medicares-competitive-bidding-program-negatively-impacts-insulin-pump-users/

Secondary Driver(s) impacted:

- Policy advocacy for diabetes with payers and policymakers (financial barriers, insurance coverage, costs of medication, patient/family day to day burden)

56) Title: Use of Mobile and On-Line Technology for Self-Management

Workgroup Reference #s: CI 22, CI 61, CI 85

Author(s): Jen Powell, Craig Bobik

Brief Description:

1) Texting for Health in the Safety Net: Improving Health Promotion and Outreach", Susan Moore et al. Denver Health. Medically underserved groups, such as the uninsured, racial and ethnic minorities, and people with multiple chronic conditions, experience barriers in accessing health care. However, 91%of people in the United States use cell phones and 81% of cell phone users send and receive text messages. Based on evidence that reminder/recall improves adherence to clinical encounters, three textmessage based initiatives were implemented in an integrated urban safety net healthcare system, with the aims of improving access to care, improving health care utilization, and improving patient satisfaction.

Methods: A software platform was used to automate sending and receiving text messages. Questions about text messaging were added to CAHPS patient satisfaction surveys, which were fielded by a certified vendor. Clinical and process outcomes were assessed through examining text message response rates and rates of seasonal flu immunization, well child check visits attended, and primary care appointments kept, cancelled, or for which patients did not show among program participants as compared to non-participants.

Summary of Findings: Over 15,000 patients chose to enroll across the three programs, together receiving almost 125,000 text messages as of May 31, 2014. Patients enrolled in appointment reminders at 5 times the rate of the other two programs combined. Statistically significant improvements were observed in primary care visit outcome rates and in adherence to well child check guidelines. HIPAA Omnibus Rule and Telephone Consumer Protection Act legislative and regulatory changes substantially influenced consent processes, allowable message content, and operational practices. Variation in clinic practices were discovered during implementation, resulting in process refinements.

D&I impact: Text messaging represents a potentially low-cost way to improve between-visit engagement and population health. The results of this project describe how a low-cost, high-access technology solution can be effectively implemented in a safety net setting that predominantly cares for underserved populations.

2) Patient–health care practitioner (HCP) interaction via a Web-based diabetes management system may increase patient monitoring of their blood glucose (BG) levels.

3) Bring together an individual's blood glucose data with meaningful and motivating health and fitness metrics such as exercise, diet and stress tracking as well as weight, blood pressure and lipid measurements

4) App patients can check-in, receive care instructions, note outcomes/side effects, track patient satisfaction

Inspiration:
1)http://www.academyhealth.org/files/2014/Moore_text_messaging_safety_net_FINAL.pdf

2) http://www.mycareteam.com/resources/documents/web-based-monitoring.pdf
3) rimidi.com
4) http://healthloop.com/

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Provide technology-based self-management tools for T1D

57) Title: Don't Make Me Track Data if the Upload Doesn't Work and the Devices Don't Talk to One Another!

Workgroup Reference #s: CI 24, CI 25, CI 26, CI 27, CI 28, CI 29, CI 31, CI 32

Author(s): Kerri Sparling, Bennet Dunlap

Brief Description: Some people wonder why almost no one uploads their pump data… I think I know why: because getting it to work can be like CRAWLING. THROUGH. BROKEN. GLASS.

Now to a few of the observations of design that I noticed:

* There is no one right way aka options are good.
* Don't have a PC? Requiring one means fewer options.
* companies cannot sync up their shit in a way that makes things easiest
* I never, ever upload because the process is annoying)." Usability matters, if it ain't usable, it don't matter.

I think there is a significant opportunity for better diabetes care through breaking down the technological towers of Babble that separate devices from each other and our lives. My fantasy device would be a common collection point for diabetes information in a way that would facilitate managing lives with diabetes not just adjusting parts of those lives. Our meters, pumps, CGMs need to talk together and work through a common Diabetes User Interface. A D.U.I. WAIT! We can't call it D.U.I.! That's been used.

Howard Look, President, CEO and Founder of Tidepool, sharing his personal diabetes story on SUM, talking about why he simply cannot wait.

Links to many CGMintheCloud blogs. I see this as a sign of teh significance of patient frustration with the design - or lack there of - in diabetes data.

That there are 10k people in this group speaks to the need for better data tools.

JDRF and the Centre for Global eHealth Innovation at the University Health Network (UHN) in Toronto announced publication of interoperability standards for diabetes devices.

Non diabetes blog post on difference between acute and chronic health, "feeling well" and data. This general case points to the specific case (or lack there of) of data interoperability in chronic conditions.

Inspiration: http://sixuntilme.com/wp/2015/01/05/animas-vibe-first-impressions/

http://sixuntilme.com/wp/2015/01/19/wearenotwaiting-brief-story-tidepool/

http://www.ydmv.net/2012/01/of-fantasy-diabetes-devices-sheldon.html

http://sixuntilme.com/wp/2015/01/19/wearenotwaiting-brief-story-tidepool/

http://sixuntilme.com/wp/2014/08/13/dexcom-mac-dance/

http://sixuntilme.com/wp/2014/09/25/cgm-cloud-remote-cgm-watching/

https://www.facebook.com/groups/cgminthecloud/

http://www.newswise.com/articles/major-milestone-in-communications-standards-for-diabetes-devices

http://thedoctorweighsin.com/denial-responsibility-connected-health-can-make-us-accountable-care/?utm_content=buffer94a00&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

Secondary Driver(s) impacted:

- Create reliable processes for high quality data collection
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners

58) Title: Intense Glycemic Control (Evidence Based Care)

Workgroup Reference #s: CI 36

Author(s): Bennet Dunlap

Brief Description: Long-term results from DCCT/EDIC trial show a survival advantage for intense glycemic control. *So how do we make tigh control viable for most T1Ds? Holistic care now to avoid the long term cost value is in avoiding complications. DCCT is seen as a drive of the technique of tight control, Look past medical techniques to emotional drivers of care

Inspiration: http://www.medpagetoday.com/Endocrinology/Diabetes/49412?xid=nl_mpt_DHE_2015-01-08&utm_content=&utm_medium=email&utm_campaign=DailyHeadlines&utm_source=ST&eun=g588371d0r&userid=588371&email=bennet.dunlap%40gmail.com&mu_id=5713561&utm_term=Daily

Secondary Driver(s) impacted:

59) Title: Emotional Health Assessment at each clinic visit

Workgroup Reference #s: CI 39, CI 41, CI 42, CI 48, CI 49

Author(s): Bennet Dunlap

Brief Description: It is more than psycho-social, more than depression, it shows how HCP outside of diabetes care can have no clue about T1 d care and that induces additional family stress. Could the system see this coming?

"The primary threat to Finn's health isn't Type 1 diabetes or celiac disease. It's depression."

Holistic care *now* to avoid the long term cost value is in avoiding complications.

Diabetes and depression are associated, and the association is primarily driven by the somatic-affective component of depression. The main limitation of our study pertains to the cross-sectional data acquisition. Further longitudinal work on the relationship of obesity and diabetes should differentiate the somatic and the cognitive symptoms of depression.

Psychosocial functioning and glycemic control in emerging adults with type 1 diabetes: A 5-year follow-up study: Our findings stress the importance of addressing patients' perceptions and beliefs about their diabetes. Clinicians should find a delicate balance between stressing the importance of diabetes care and preventing patients from feeling overwhelmed or engulfed by the burden of diabetes care.

Risks of Psychiatric Disorders and Suicide Attempts in Children and Adolescents With Type 1 Diabetes: A Population-Based Cohort Study: The risk of psychiatric morbidity in children with type 1 diabetes compared with the general population was tripled within 6 months after the onset of diabetes (hazard ratio [HR] 3.0 [95% CI 2.7–3.4]) and doubled within the total observation period (HR 2.1 [95% CI 2.0–2.2]). An increased risk was noted in suicide attempts (HR 1.7 [95% CI 1.4–2.0]) and in most categories of psychiatric disorders.

Inspiration: http://asweetlife.org/feature/when-type-1-diabetes-is-too-much-for-a-child-to-bear/

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0105499

https://lirias.kuleuven.be/bitstream/123456789/475895/2/Preprint+Health+Psychology.pdf

http://care.diabetesjournals.org/content/early/2015/01/30/dc14-0262?papetoc

http://theperfectd.com/2015/02/17/diabetes-diagnosis-increases-psychiatric-disorder-risk/

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Sharing of best practices and learning (real-world and virtual)
- Promotion of evidence-based best practices in clinical care

60) Title: Technology Innovations: Tracking Blood Sugars and Eye Exams

Workgroup Reference #s: CI 51, CI 21

Author(s): April Mack-Williams, Jen Powell

Brief Description:.

1) Temporary Tattoo tracks blood sugar without pain. Nano engineering lab in UC San Diego Center for wearable sensors has created a paper based temporary tattoo that estimate glucose levels. A few years before available commercially.

2) Dr. Chris Johnson tested an off-the-shelf free app called Visual Fields Easy to screen about 200 patients in Nepal. "I was skeptical at first; we did some tests and calibrated it." The app was very good at identifying people with moderate to severe disease, less so at screening out people with normal vision. "It works much better than I expected," Johnson, who specializes in developing diagnostic tests, told Shots. He and his colleagues are now expanding the tests to India, with the aim of refining it. "I know I can make it better."

Inspiration: 1) http://www.fastcoexist.com/3041258/forget-needles-for-diabetics-this-temporary-tattoo-tracks-blood-sugar-without-pain

2) http://www.npr.org/blogs/health/2014/10/20/357531815/eye-phone-your-next-eye-exam-might-be-done-with-your-phone

Secondary Driver(s) impacted:

- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection

61) Title: Training for Young Adults (Post College or Leaving Home)

Workgroup Reference #s: CI 54

Author(s): Marissa Town

Brief Description:. Patients are transitioning from peds to adults, but emerging adults don't really belong in either category. Anxiety related to this feeling, and for md visits in general.

Transition toolkits for young adults and their parents and empathy training for providers on myGlu

Inspiration: https://myglu.org/articles/transition-to-nowhere

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Promotion of evidence-based best practices in clinical care

62) Title: Training for Women who are Pregnant

Workgroup Reference #s: CI 59

Author(s): Bennet Dunlap, Kerri Sparling

Brief Description:. Managing Preexisting Diabetes for Pregnancy
Summary of evidence and consensus recommendations for care. Possible support for tool Kit kerri spoke of - - This document presents consensus panel recommendations for the medical care of pregnant women with preexisting diabetes, including type 1 and type 2 diabetes.

Inspiration: http://care.diabetesjournals.org/content/31/5/1060.short

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Promotion of evidence-based best practices in clinical care

63) Title: Evidence: Use of Insulin Pumps

Workgroup Reference #s: CI 60

Author(s): Bennet Dunlap

Brief Description:.

Insulin pump use in young children in the T1D Exchange clinic registry is associated with lower hemoglobin A1c levels than injection therapy

Inspiration:
http://onlinelibrary.wiley.com/doi/10.1111/pedi.12121/abstract;jsessionid=08228BA9FACAC65D55AECFAEC4AC71C6.f04t03?deniedAccessCustomisedMessage=&userIsAuthenticated=false

Secondary Driver(s) impacted:

- Provide technology-based self-management tools for T1D
- Promotion of evidence-based best practices in clinical care

64) Title: Digital Health: Future FDA Approvals

Workgroup Reference #s: CI 62

Author(s): Craig Bobik, Bennet Dunlap

Brief Description:. What FDA developments in Diabetes mean for FDA Approval in Digital Health.
Summary of the FDA-hosted Town Hall addressing "Unmet Needs in Diabetes."

Speeding up the regulation of innovation.
At some point safety should no longer be seen as a competitive advantage in diabetes care.
Device error system reporting that does not include individual blame, like aviation safety

Inspiration: http://www.imedicalapps.com/2015/01/fda-approval-digital-health/

Secondary Driver(s) impacted:

- Provide technology-based self-management tools for T1D

65) Title: On-Line Communities: Peer-to-Peer Support

Workgroup Reference #s: CI 66

Author(s): Bennet Dunlap

Brief Description:.

On line communication that is personalized and rewards social support. Provides support on key questions pertaining to Quality of Life, Daily Management of T1D, body image, food, independence, exercise, etc. The service shall also provide access to services/vendors that understand T1D such as babysitters, food merchants, etc.

"Online Communities Are Valued by People With Type 1 Diabetes for Peer Support: How Well Do Health Professionals Understand This?"

Despite the support of health providers, the daily management tasks of type 1 diabetes are all actions that people with diabetes must carry out themselves to prevent acute and chronic physical complications. This responsibility

may bring with it significant psychological strain.3 Furthermore, although health outcomes are controllable to a significant extent, fluctuations in health status are inevitable, and complications can befall even the most diligent illness managers. The resulting uncertainty and knowledge of the potential for death or disability can compound the psychological strain.4 There can also be a tangible burden associated with the considerable time, energy, and focus required to establish and maintain metabolic control, which places considerable strain on patients' ability to attend to occupational, social, familial, and personal needs and desires.3,5–8 Social stigma may also be associated with carrying out the demands of diabetes management.

Inspiration: http://spectrum.diabetesjournals.org/content/25/3/180.long

Secondary Driver(s) impacted:

- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

66) Title: Evidence Regarding Using Bolus Calculators

Workgroup Reference #s: CI 69

Author(s): Bennet Dunlap

Brief Description:. Public Workshop - Regulatory Science Considerations for Software Used in Diabetes Management, November 13, 2014. Full day session on data and bolus calculators by FDA. This can be any of our personas.2/3 of T1D are on shots. Bolus calculators and IOB can help refine dosing.

Inspiration:
http://www.fda.gov/MedicalDevices/NewsEvents/WorkshopsConferences/ucm418080.htm

Secondary Driver(s) impacted:

- Provide technology-based self-management tools for T1D
- Promotion of evidence-based best practices in clinical care

67) Title: Managing Co-Morbidities: Eating Disorders and Diabetes

Workgroup Reference #s: CI 72

Author(s): Bennet Dunlap

Brief Description:. Eating disorders as a specific emotional health issue to be part of routine T1D care.

Inspiration: http://diabetesadvocates.org/eating-disorders-and-diabetes/

Secondary Driver(s) impacted:

- Promotion of evidence-based best practices in clinical care

68) Title: New Form of Glucagon "Rescue Treatment" for Severe Hypoglycemia

Workgroup Reference #s: CI 74

Author(s): Bennet Dunlap

Brief Description:. Great example of a new design of T1 Care to significantly improve a process. (aka mixing and using glucagon in an emergency situation)

Inspiration: https://t1dexchange.org/pages/t1d-exchange-presents-data-on-new-form-of-glucagon-rescue-treatment-for-severe-hypoglycemia/

Secondary Driver(s) impacted:

- Promotion of evidence-based best practices in clinical care

69) Title: Combining Individual Visits and Patient Group Visits for Teens

Workgroup Reference #s: CI 76

Author(s): Joyce Lee

Brief Description:. Individual visit+patient group discussions+provider group discussions all combined together in quarterly visits instead of the typical clinic visit; this provides no extra travel or expense for personnel time & provides kids with peer support and education at the event

Inspiration: https://www.dropbox.com/s/cx23gljipzclgvn/raymond_novel%20copy.pdf?dl=0
Jen Block Paper Stanford

Secondary Driver(s) impacted:

- Collaborative clinical interactions between patients and providers
- Co- Production. Promotion of peer-to-peer connection and communication among patients, caregivers and researchers

70) Title: Consumer Genetic Testing

Workgroup Reference #s: CI 78

Author(s): Joyce Lee

Brief Description:. Direct to consumer genetic testing service

Inspiration: https://www.counsyl.com/

Secondary Driver(s) impacted:

- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners

71) Title: Coupons and Program to Find Lowest Priced Medications shipped conveniently

Workgroup Reference #s: CI 79

Author(s): Joyce Lee / Design Day 1

Brief Description:. Pharmacy discount card that checks for lowest price of Rx with or withou insurance

Patients receive targeted coupons ahead of their visits so they can purchase at a discount the supplies and equipment for treating T1D. Coupons are customized to reflect the specific purchasing habits and likes of the patients/care givers, the same way grocery stores customize their reward cards (1:1 Marketing / value customer loyalty). Refills are also completed at time of visit, by the clinical team.

Special partnerships are developed with Walmart and other discounters to offer T1D supplies on line at a discounted rate all over the country (the Amazon.com way)

Inspiration: www.usarx.com

Secondary Driver(s) impacted:

- Measure & Manage utilization and costs of clinical care

72) Title: Simplified Medication Packaging and Delivery

Workgroup Reference #s: CI 80

Author(s): Joyce Lee

Brief Description:. Simplified medication packaging and delivery, full service pharmacy

Inspiration: https://www.pillpack.com/

Secondary Driver(s) impacted:

- Measure & Manage utilization and costs of clinical care

73) Title: Simplified Insurance Eligibility

Workgroup Reference #s: CI 82

Author(s): Joyce Lee

Brief Description:. Instantly create & retrieve healthcare financial transactions to over 1,000 insurance companies including: eligibility, policy, coverage, demographics, authorizations, coordination of benefits, claims, payments and more.

Inspiration: https://eligibleapi.com/

Secondary Driver(s) impacted:

74) Title: On-Line Mental Health/Emotional Support

Workgroup Reference #s: CI 83

Author(s): Joyce Lee

Brief Description:. Connects consumers to counselors/social workers for online mental healthcare

Inspiration: Breakthrough.com

Secondary Driver(s) impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams
- Provide technology-based self-management tools for T1D

75) Title: Managing the Logistics of a Chronic Condition

Workgroup Reference #s: CI 84

Author(s): Joyce Lee

Brief Description:. Online marketplace for logistical/day-to-day tasks - i.e. laundry, transportation, cooking, etc - for patients undergoing exhaustive treatments like chemo.

Inspiration: www.wellist.com

Secondary Driver(s) impacted:

76) Title: Emma App

Author(s): IBD C3N Project

Brief Description: Who is Emma? Emma is the main character in a captivating game of the same name. The game – which is actually an iPad app – is designed to engage young patients in the waiting room while giving clinicians a quick pre-visit snapshot of their condition. Emma aims to test and increase patient knowledge in four areas: quality of life, wellness, patient nutrition and general nutrition. The app also aims to change the clinician's interactions

Data suggest physicians poorly assess disease-specific literacy and transition readiness in pediatric patients with inflammatory bowel disease (IBD). We piloted an electronic, interactive iPad quiz-game that could be used in a clinical setting, with the aims of measuring IBD-related knowledge in a pediatric population, and measuring concomitant mood and quality of life (QOL).

The Emma iPad game has the potential to evaluate gaps in IBD knowledge, assess emotional functioning, and increase patient engagement as a transition tool in the clinical setting.

Inspiration: ICN

Secondary Driver impacted:

- Collaborative clinical interactions between patients and providers
- Create reliable processes for high quality data collection
- Provide technology-based self-management tools for T1D

77) Title: Team Science

Workgroup Reference #s: IBD2

Author(s): Peter Margolis / Peter Gloor

Brief Description: Team Science aims to gain understanding of collaboration and innovation mechanisms through the lens of dynamic social network analysis. Team Science conducts network analyses by mining electronic communication (email) data to compare changes in social network structure and communication content with team and project-based outcomes. We also assess "honest signals" of communication, such as the frequency of shifts in team leadership or individual speed of response to emails. The primary research questions that motivate Team Science include:

1. What patterns of interaction and communication predict high-performing innovation teams?
2. How can the virtual mirroring of interaction and communication patterns enhance performance at the individual, team and network levels?
3. How can the processes around virtual mirroring help us to design and manage emergent networked systems such as the C3N?

Answer to these questions will help gain novel insights in the drivers of collaborative innovation. And on the practical side, it will improve creativity and performance across the T1D C3N Project system.

Inspiration: ICN

Secondary Driver impacted:

- Build leadership knowledge, skills, and commitment among all T1D participants
- Nurture and facilitate COIN, harness inherent motivation

78) Title: Animal Insulin as a cheaper alternative to the costly human derived insulin

Reference ID:

Author(s): Anne Paul

Brief Description: Animal derived insulin is not available in the US. Only human derived insulin is available due to efforts by the pharmaceutical industry to provide more advanced and "better" products to patients. The drawback is that cost has remained high. In Canada, animal insulin is still available and considered a cheaper alternative, which has also shown to be more effective on certain patients than its more "advanced" human derived insulin. Work at the policy level to encourage the introduction of animal derived insulin in the US market.

Inspiration: http://www.npr.org/blogs/health/2015/03/19/393856788/why-is-u-s-insulin-so-expensive; http://www.npr.org/2015/03/22/394634923/90-years-after-its-discovery-no-generic-insulin-sold-in-the-u-s

Secondary Driver impacted:

- Policy advocacy for diabetes with payers and policymakers (financial barriers, insurance coverage, costs of medication, patient/family day to day burden)
- Measure & Manage utilization and costs of clinical care

79) Title: School Awareness and Education Program

Reference ID:

Author(s): DD1

Brief Description: Special partnerships are developed with schools to educate on-site nurses on T1D crises situations. Awareness program about diabetes are also available in schools to sensitize students and teachers about what it means to live with T1D. "Make it cool to live with T1D"

Inspiration: DD1

Secondary Driver impacted:

- Co-production of educational tools, technologies, and QI interventions between patients and healthcare teams

80) Title: Tidepool Blip

Author(s): Howard Luck / Brandon Arbiter

Brief Description: Blip puts all the information that you and the patient need to see in one place, shown in a way that you can actually use. It helps you see patterns. It helps you see, for the first time, what's actually going on. And because the Tidepool Platform makes it easier to get data from multiple devices, even devices from different manufacturers, it means that you can easily see data from, for example, a Medtronic insulin pump and a Dexcom CGM in one place. Finally.

Inspiration: http://tidepool.org/products/blip

Secondary Driver impacted:

- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners
- Provide technology-based self-management tools for T1D

81) Title: Tidepool Nutshell

Author(s): Howard Luck / Brandon Arbiter

Brief Description: Nutshell takes the guesswork out of diabetes by showing you exactly what happened last time. See how your kid's body reacts to different foods and avoid making the same mistakes. Once you learn how your kid is affected by the carbs in pizza, and how that's different than the carbs in pasta, you and your kid will be using data to make smarter food choices and better bolusing decisions.

Inspiration: http://tidepool.org/products/nutshell/

Secondary Driver impacted:

- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)

- Create reliable processes for high quality data collection
- Provide patients with access to their own medical data
- Provide technology-based self-management tools for T1D

82) Title: Tidepool Sonar

Author(s): Howard Luck / Brandon Arbiter

Brief Description: Sonar is a "decision support" tool. Using the Tidepool Platform, Sonar it makes it easy to collect data from any diabetes device, even from different vendors. Sonar then gives you powerful but easy-to-use search tools that make it a snap to find what's working well, and what could use some adjustment. Sonar makes it simple for your doctor to make therapy recommendations, like better pump settings or a different bolus strategy for that pesky high-fat meal.

Inspiration: http://tidepool.org/products/sonar/

Secondary Driver impacted:

- Measure real-time health outcomes including patient-reported outcomes (glucose/QOL data)
- Create reliable processes for high quality data collection
- Share real-time outcomes data in a transparent manner to facilitate learning & improvement
- Provide patients with access to their own medical data
- Enable patients to easily download and share clinical data with healthcare partners

83) Title: Engagement Campaigns using the snowflake model

Author(s): Max Clermont

Brief Description: Develop grass root campaigns to increase patient and care givers' engagement into supporting the spread of a learning network across the country.

Inspiration: 270 strategies

Secondary Driver impacted:

- Build leadership knowledge, skills, and commitment among all T1D participants
- Align all participants around a compelling vision, linked to local actions
- Shift narrative from health care as "service delivery" to "shared work"
- All participants share responsibility for contributions and results of the network
- Nurture and facilitate COIN, harness inherent motivation
- Articulate and implement roles and responsibilities
- Create distributed processes whenever possible
- Conduct effective internal and external communications

84) Title: Central IRB

Author(s): Peter Margolis

Brief Description: Central IRB model gives care centers the option of relying on a single institution's IRB. Reliance on the central IRB significantly reduces the transactional costs and burden associated with participation in a research network.

Inspiration: ImproveCareNow

Secondary Driver impacted:

- Streamlined and standardized regulatory process for research
- Reduce barriers for sharing and learning by applying open science concepts (e.g. standard IRB language, data sharing policies, contests, etc.)