Executive Summary

Title
Performance Improvement Initiative for Practice-Based Education, Training, and Support—Targeting Type 2 Diabetes: Achieving Glycemic and Cardiometabolic Goals

Project Objective
The objective of this focused initiative is to measure the effectiveness of interventions in achieving recommended metabolic treatment targets for type 2 diabetes and other components of the cardiometabolic syndrome. Improved use of these treatments will be supported through interventions targeting knowledge, support of skill-building to enhance provider competence and office systems support to overcome practice obstacles, as well as through availability of tools and resources to encourage a culture of quality and continuous improvement.

Summary
Primary care practices see more than 90% of people with type 2 diabetes and likely even a higher percent of those who do not yet carry that diagnosis, but who are at increased risk. Data (such as NHANES) have suggested that we are falling short in our efforts to achieve targeted treatment goals for the various cardiometabolic risk factors. It is in the realm of the primary care practice that education is needed to try to accomplish this.

Gaps have been identified more recently in office-system design. Implementation of improved office systems allow clinicians to more effectively and efficiently target recommended metabolic goals. This educational initiative has been designed to focus on the clinical care recommendations and guidelines, and also in parallel on specific training of providers and office staff in how to improve office practice models and office systems to optimize cardiometabolic care. The content scope, as described, reflects this dual focus.

Project Components and Format/Structure
Joslin proposes to assess—through clinical data-driven analyses of performance process and patient outcomes—the impact of a focused, longitudinal curriculum consisting of technical support, ongoing training, and educational and non-educational interventions.

For the initiative Joslin will recruit/select Joslin-affiliated centers and from each local geographic region will select primary care practices (MDs and office staff) to form the cohort of participants.

Ongoing support for the Joslin strategies and systems for daily practice will come from Joslin Diabetes Center, Boston, as well as from regional diabetes centers in the Joslin network. Clinical data will be collected automatically via a customized (and sustainable) electronic data port (which will be implemented as part of this initiative) into the Joslin educational system—the Joslin Professional Education Continuum (JPEC), including longitudinal PI CME pathways as explained below. Feedback will also be continuously monitored and used to improve tools and systems developed via this project, and to assess the need for future activities in this topic area. Performance
and patient outcomes will be measured to show efficacy for further distribution of these same activities, tools, and resources, appropriately refined for a broader roll-out.

Components of this initiative include:

- **Regional ‘Diamond’ workshops** will be held in each of the selected regions and will include the providers and office staff from the participating primary care practices in the area. These workshops will provide knowledge and competence-building education for clinicians, and training and support for office staff to optimize clinical practice systems. These activities will direct learners to, and utilize the resources of, the JPEC system, and will also set the stage for the ongoing performance improvement support described below.

- **Internet-delivered activity** on JPEC Web site to reinforce confidence and competence to change clinical practice behaviors by appropriately targeting glycemic and cardiometabolic risk factors and overcoming clinical inertia regarding the advancement of non-pharmacologic and pharmacologic treatments for the targeted conditions. This activity will be consistent with, and provide timely updates for, existing support materials on the JPEC system covering these issues. However, the activity will also emphasize how primary care practices can optimize their clinical systems to facilitate the successful screening and treatment that these treatment mandates require.

- **Joslin Virtual Clinic** simulated patient vignettes will focus on assessing people with suboptimally controlled type 2 diabetes (and other components of cardiometabolic syndrome) and clear increased risk for end-organ cardiovascular disease (CVD). Emphasis will be on identifying at-risk individuals, assessing the risk, and advancing non-pharmacologic and pharmacologic treatments for the targeted conditions in a timely manner.

- **Update of Joslin CareKit clinical resources** (including staff education and online interactive algorithms for use by providers) based on gap analysis/needs assessment from regional workshops to support best practices in glycemic and metabolic control that currently exist on JPEC within the Advancing Treatment for Type 2 Diabetes and Cardiometabolic Risk clinical centers. CareKit resources will be demonstrated as part of the workshops with resulting feedback being used for updates, embellishments, and identification of additional resources.

- **Enhancement of performance improvement data access, collection, and support.** Joslin has devised a support system with enhanced data collection for the two PICME pathways that are aligned with this activity: Advancing Treatment for Type 2 Diabetes and Cardiometabolic Risk. While it is commonly recognized that the PICME model promulgated by the AMA and ACCME is not being widely utilized, Joslin Diabetes Center has identified the following barriers to PICME use:
  - Time required for chart data abstraction
  - Understanding the multi-step processes involved
  - Lack of awareness of the many benefits of participation in PICME

Joslin will address these barriers by instituting a **community manager**, who will work with the practices in this pilot to increase participation in the PICME process, as well as provide follow-up support through **affiliate coordinators** who will utilize in-person visits, online conferences, and individualized assistance in completing PICME processes. In addition, Joslin will deploy an enhanced electronic data collection process in the selected primary care practices (nodes) linking clinical data streams with JPEC PICME pathways and quality educational interventions on a continuous longitudinal scale. This process will result in:

  - Replacement of time-consuming manual data entry and continuation on ongoing basis at additional nodes
• Data-informed reporting on individual or regional performance gaps based on individual or regional needs assessment
• Continuous baseline and longitudinal data collection over time with ease of extraction and automated individual- and systems-level reporting and validation

The Joslin CME Program: Aligning JPEC and existing Clinical Centers and PI CME Pathways

Joslin’s “pooled-funded”, unique, and innovative CME program, is based on the longitudinal continuum model and is entirely focused towards performance improvement (PI) as the foundation of all activities. We define PI in two categories—the structured AMA PI CME model, and “ad-hoc” performance improvement—both which we measure through a series of analytics to gauge the impact of the education and tools on performance and outcomes. We are equally committed to both forms of PI and all individual interventions are strategically aligned as part of the continuum towards this improvement. This approach has resulted in the development and implementation of a comprehensive educational system we call JPEC—Joslin Professional Education Continuum. JPEC allows for activities that provide broad awareness, knowledge, training, and competence, and that then “pull through” into further online and interactive activities and ongoing point-of-care education, tools, and resources, and ultimately to structured and ‘ad-hoc’ PI CME pathways in specific targeted areas vital to improved diabetes care. Thus, all activities in the continuum provide varied types of educational experiences and are ultimately aligned with, and feed into, our PI CME initiatives. This new approach to CME reflects the many quality-based incentives and programs offered via public and private payers and the “new world order” of health system delivery in the U.S. now and into the future.

This initiative as proposed is aligned with and augments existing performance and outcomes objectives and PI CME Pathways, (specifically the Advancing Treatment for Type 2 Diabetes and Cardiometabolic Risk PI CME pathways) both structured and “ad hoc”.

We believe further that this approach allows for efficiency and focus in targeting funds for initiatives that promote adoption of performance improvement on a continuous basis, rather than funding one-off PI interventions which may not necessarily support a culture of improvement.

About the Joslin Professional Educational Continuum (JPEC)

The proposed educational components will be integrated as a targeted clinical center on JPEC.joslin.org—the Web-based platform for the Joslin continuous learning model that addresses key diabetes treatment issues and encourages clinical performance improvement.

JPEC represents a learning continuum that is supported by research evaluating the effectiveness of different types of CME. While passive approaches to learning are generally ineffective in changing physician behavior, interactive CME that helps learners reflect on current practices, identifies gaps between current performance and a standard, and then closes the gap by putting into practice what was learned, has been shown to be more effective in changing clinician performance.\textsuperscript{1} Data also suggest that multifaceted activities combining several different interventions are more effective than those that offer a single intervention.\textsuperscript{2}

JPEC is intended to address gaps in clinical performance via a curriculum-based approach to care and is designed as a continuum featuring a Web-enabled platform and a well-delineated gateway to structured PI CME and ad-hoc performance improvement. PI CME pathways allow learners to progress though knowledge, competence, and performance domains that are longitudinally measurable over time. The continuum begins by reinforcing targeted skill-building, moves through patient-based interaction and point-of-care support materials to build clinical competence and
improve systems, and concludes with structured PI CME and other performance improvement tools to demonstrate changes in practice processes and patient outcomes. Joslin intends for all structured and ad-hoc performance improvement pathways to exist over time, thereby providing a foundation of data points that have been measured, analyzed, and integrated into continuing interventions focused locally, regionally, and nationally over the next decade and beyond.

**JPEC** currently consists of six (6) clinical centers (*Type 2 Diabetes, Diabetic Peripheral Neuropathies, Insulin Therapy, Advancing Therapies for Type 2 Diabetes, Cardiometabolic Risk, and Dental Care—The Oral-Systemic Link*) and four (4) longitudinal PI CME Pathways which are certified for 3 year periods. (*Development of Office-Based Systems of Care: Type 2 Diabetes and the Metabolic Syndrome, Insulin Therapy, Advancing Therapies for Type 2 Diabetes, and Cardiometabolic Risk*). One additional clinical center: *Outpatient Diabetes Care for Older Adults* is currently under construction. The *Development of Office-Based Systems of Care: Type 2 Diabetes and the Metabolic Syndrome Pathway* and the *Insulin Therapy Pathway* are approved through the American Board of Internal Medicine’s (ABIM) Approved Quality Improvement (AQI) Pathway and are eligible for 20 points towards the Self-Evaluation of Practice Performance requirement of Maintenance of Certification (MOC), and the remaining pathways are under consideration for approval.

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