Optimal specialty palliative care (SPC) requires access to a transdisciplinary team that can comprehensively assess and address distress for patients living with serious illness and articulate patients’ values and goals of care with an understanding of the disease process and treatment options. To ensure that patients who would benefit from SPC have access to such teams, Kaiser Permanente Northern California (KPNCAL) in 2016 designed a demand-driven staffing model that identifies optimal staffing levels for SPC physicians, nurses, social workers, and chaplains in each of its service areas based on the estimated number of patients who may need SPC.

### Model Design

**Demand**

- **i.e. patients who need SPC**
  - To identify patients who would benefit from SPC, KPNCAL partnered with clinicians from SPC and various other specialties across the region to develop prospective patient identification registries for specific disease cohorts. These cohorts are designed to help teams identify and reach patients upstream and provide specialty-level palliative care at appropriate points throughout their illnesses.

**Supply**

- **i.e. SPC staff needed to meet demand**
  - To understand the staff needed to provide SPC to all patients who would benefit from it, KPNCAL first calculated the staff needed to provide SPC for the average SPC patient using a transdisciplinary care model.

### Two Transdisciplinary Models

**1. Transdisciplinary Care Staffing Model**

- **CORE TEAM MODEL (current staff)**
  - Includes a minimum of one medical (primary care or specialist), a social worker or psychologist, a pharmacist, an occupational therapist, and a physical therapist.
  - The disciplines present in the follow-up consultations are determined based on the patient’s needs identified in the initial consult.

**FULL TEAM MODEL (future staff)**

- As a distribution, KPNCAL recommends that four disciplines (medical, social, psychological, and spiritual) be included on all consults. The disciplines present in the follow-up consultations are determined based on the patient’s needs identified in the initial consult.

For the SPC staffing model, KPNCAL calculated the staff needed to achieve the core team model at a minimum, as well as the staff needed to achieve the full team model as a destination.

### Estimating Staff Time Needed Per Patient

To understand the SPC staffing needs of the average patient, KPNCAL gathered a workgroup of subject matter experts to examine KPNCAL data on initial consults, follow-ups, and care coordination, as well as the available literature on SPC staffing and care models. See Figure 3 for an overview of the estimated SPC needs included in the KPNCAL staffing model.

- **INPATIENT CONSULTS PER MONTH**
  - The workgroup estimated that the average SPC patient might need an initial consultation and 2-4 follow-up consultations per year in the inpatient setting. The disciplines present for initial consults are determined by whether the team uses the patient’s chart (see Figure 4).

- **OUTPATIENT CONSULTS PER MONTH**
  - The workgroup estimated that the average SPC patient might need an initial consultation and 2-4 follow-up consultations per year in the outpatient setting. The disciplines present for initial consults are determined by whether the team uses the patient’s chart (see Figure 4).

### Calculating Staffing Needs for SPC Population

KPNCAL used the estimated staff time needed for an average patient to determine the total full-time equivalents (FTEs) needed for each of the SPC disciplines to meet the SPC demand in each KPNCAL service area. For the model, one FTE was considered 40 hours, with adjustments for non-clinical time (e.g., department meetings, off-site) and benefits (e.g., sick leave and paid vacation time).

### Implementation Timeline and Outcomes

#### 2016

- **CREATING THE PHASE A REGISTRY COHORTS**
  - To begin this work, KPNCAL brought together SPC leaders from across the region to identify potential disease cohorts for inclusion in the specialty palliative care registry, including cancer, CKD, heart failure, lung disease, neuropsychiatric conditions, failure to thrive groups, and more. Taking a phased approach to developing the registry, KPNCAL began by creating clinical specifications for four Phase A cohorts: cancer, CKD, heart failure, and lung disease. (See Figure 1 for an overview of the Phase A registry specifications.)

- **PALLIATIVE CARE VISION**
  - “Patients with serious illness and their families live as well and as fully as possible.”
  - Learn more about palliative care at Kaiser Permanente at KP.org.

#### 2017

- **OPERATIONALIZING THE STAFFING MODEL**
  - Using FTE estimates from the staffing model, KPNCAL developed a local planning tool that helped medical centers increase staffing to meet demand in their service area. Over a three-year period, the number of SPC clinicians across KPNCAL increased from 88 to 254 clinicians. This staffing increase has helped medical centers adapt as the population of patients who would benefit from SPC continues to grow. In 2017 alone, SPC consultations increased by 50% across KPNCAL.

#### 2018

- **DESIGNING LOCAL STAFFING DASHBOARD**
  - To support local SPC leaders’ efforts to understand demand and act on staffing needs in real time, KPNCAL designed user-friendly dashboards that display current and needed staff levels for each team (see Figure 5 for sample dashboard design).

- **MEASURING SUCCESS**
  - KPNCAL in 2019 plans to develop and implement a measurement strategy that will examine the impact of staffing levels and transdisciplinary care models on outcomes. It also will develop an operational excellence strategy for SPC to promote the consistent implementation of the transdisciplinary model and delivery of high-quality care.

#### 2019

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