California Health Care Foundation

SB 1004 Technical Assistance Series
Overview of Topic 1: Estimating Need and Analyzing Baseline Utilization Patterns

ABOUT THE TECHNICAL ASSISTANCE SERIES

SB 1004, the California law that requires Medi-Cal managed care plans (MCPs) to provide access to palliative care, is slated for implementation in January 2018. As part of CHCF's ongoing efforts to help health plans and providers prepare for and navigate its implementation, the foundation is offering a yearlong series of technical assistance activities related to the law. Series content focuses on topics that are central to creating and sustaining palliative care (PC) programs and is offered through webinars, in-person workshops, and documents that can be downloaded from CHCF's website.

The material covered in "Topic 1: Estimating the number of individuals eligible for SB 1004 palliative care and appreciating baseline utilization patterns and costs toward the end of life" was presented in a webinar and in several workshops offered during July and August 2017. A recording of the webinar and accompanying slides, and the slides used in the workshops, are available on this topic page.

TOPIC 1: ESTIMATING NEED AND ANALYZING BASELINE UTILIZATION PATTERNS

Generating an estimate of the number of eligible members is an important piece of palliative care service implementation planning. Understanding how eligible members are currently using health care resources can assist in estimating and (eventually) assessing program impact and in targeting outreach and educational efforts. Estimates can be based on current plan enrollment, or on an analysis of disease prevalence and health care use patterns among a population of decedents.

SB 1004 eligibility criteria

A full description of eligibility criteria for SB 1004 palliative care is included in the All Plan Letter (APL) that has been distributed to all Medi-Cal MCPs by the Department of Health Care Services (DHCS). In brief, criteria address both general and disease-specific items.

General criteria

- Beneficiary is likely to or has started to use the hospital or emergency department as a means to manage his/her late-stage disease
- Late stage of illness, appropriate documentation of continued decline in health status, not eligible for or declines hospice enrollment
- Death within a year would not be unexpected based on clinical status
- Beneficiary has received appropriate patient-desired medical therapy, or patient-desired medical therapy is no longer effective; not in reversible acute decompensation
- Beneficiary and (if applicable) family or patient-designated support person agrees to:
    - Attempt in-home, residential-based, or outpatient disease management instead of first going to the emergency department

- Participate in advance care planning (ACP) discussions

Disease-specific criteria

- Congestive heart failure (CHF):
  - Hospitalized for CHF with no further invasive interventions planned OR meets criteria for NYHA heart failure classification III or higher AND
  - Ejection fraction <30% for systolic failure OR significant comorbidities
- Chronic obstructive pulmonary disease (COPD):
  - FEV 1 <35% predicted AND 24-hour oxygen requirement <3 liters per minute OR
  - 24-hour oxygen requirement ≥3 liters per minute
- Advanced cancer:
  - Stage III or IV solid organ cancer, lymphoma, or leukemia AND
  - Karnofsky Performance Scale score ≤70 OR failure of 2 lines of standard chemotherapy
- Liver disease:
  - Evidence of irreversible liver damage, serum albumin <3.0, and INR >1.3 AND
  - Ascites, subacute bacterial peritonitis, hepatic encephalopathy, hepatorenal syndrome, or recurrent esophageal varices OR
  - Evidence of irreversible liver damage and MELD score >19

Data sources for criteria

Some criteria are documented in claims/authorization data:

- Primary and secondary diagnoses, hospitalizations, pharmaceuticals, home oxygen

Some criteria might be documented in an electronic health record (EHR):

- Lab values/biomarkers, detailed information regarding stage of illness, results of ACP/goals of care discussions, functional status

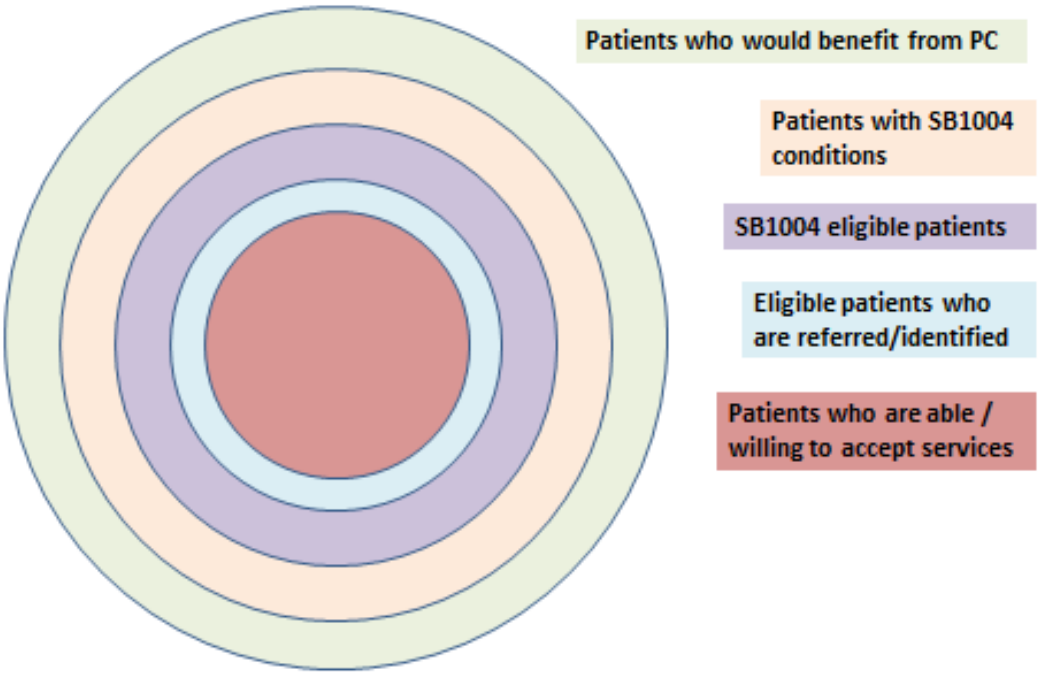
Some criteria can only be reported by providers and/or patients/caregivers; such data would be available in chart notes, or would need to be gathered through a screening/interview process:

- Patient preferences, care plans, willingness to attempt in-home therapy and participate in ACP

Because only a subset of information needed to assess eligibility are available in claims data, estimates based solely on claims data will likely overestimate the number of eligible members.

	Claims and authorization data	Electronic health records	Screening/assessment findings
Qualifying diagnoses	✓	✓	✓
Evidence of advanced disease	(✓)	✓	✓
Patient and family preferences		(✓)	✓

Further, in order for an eligible patient to be enrolled in a palliative care program, referring providers need to know about and be open to using the service, eligibility needs to be recognized early enough to allow for a referral to the service prior to patient death or hospice enrollment, and patients need to be willing and able to accept services. Given all these factors, it is likely that only a subset of individuals who would benefit from palliative care will in fact be eligible, and will be referred, and will be willing and able to accept services.



ESTIMATING THE NUMBER OF ELIGIBLE INDIVIDUALS BASED ON CURRENT PLAN ENROLLMENT

Estimates of the number of eligible members based on current plan enrollment use claims data to identify qualifying diagnoses and evidence of advanced disease, and as possible, incorporate EHR data that describe patient/family preferences.

In brief, the analysis proceeds as follows:

1. Mine claims data to identify members with qualifying diagnoses and some defined minimum amount of health care use (at least one hospitalization or emergency department visit in the past 12 months, for example).
2. Narrow the pool to individuals with evidence of advanced disease (within each disease category):
    a. Option 1: use risk stratification software to apply risk scores to determine probability of hospitalization or death.
    b. Option 2: use authorization/utilization data to trim the list to individuals with secondary indicators of advanced disease such as hospital admissions or ED visits, authorizations for home equipment (hospital bed, home oxygen, other durable medical equipment), or recent disenrollment from hospice.
3. If possible, fold in EHR data such as lab values indicative of advanced disease, to further refine the list.

This approach has several advantages, notably that the analysis can be done using only claims/authorization data. It is a great option for organizations that have access to lab values / biomarkers and other EHR data to identify patients with advanced disease, and for organizations that have access to analytic software that can assign acuity scores / assess risk for hospitalization.

Several resources to support this type of analysis are available on this topic page, including

- SB 1004 condition codes: a spreadsheet file with ICD-9 and ICD-10 codes that can be used to identify individuals with qualifying diagnoses
- Criteria crosswalk: a reference document that lists claims/authorization data that can be used to model the eligible population, including indicators of advanced disease
- Estimate based on current plan enrollment: a more detailed outline of the analysis steps

ESTIMATE BASED ON A DECEDENT ANALYSIS

A second option for estimating the number of eligible patients is to conduct a decedent analysis, which would quantify the number of members who died in a recent year who likely would have qualified for SB 1004 PC. The analysis relies on claims data, which are combined with date-of-death data, which can be acquired from the California Department of Public Health (CDPH).

In brief, the analysis includes the following steps:

1. Identify a population of decedents with qualifying diagnoses:

    a. Secure data that has both demographic / identifying variables and date of death for a population of decedents.
    b. Combine the decedent file with claims data describing diagnoses and use of health care services.
2. Exclude individuals with encounters for trauma-related events in the final 6 months of life (car crash, gunshot, etc.).
3. Analyze health care utilization in the last 12-24 months of life, generating information on:
    a. Number of decedents with qualifying diagnoses.
    b. Usage and costs of different types of health care services.
    c. Indicators of care quality, such as multiple ED visits in the final 30 days of life.

A key advantage of this approach is that in addition to information about expected volume, it yields useful information about current utilization patterns and costs, and some aspects of care quality. On the other hand, doing this analysis requires acquiring date-of-death data, and can be time-consuming to conduct.

Several resources to support this type of analysis are available on this topic page, including:

- SB 1004 condition codes: a spreadsheet file with ICD-9 and ICD-10 codes that can be used to identify individuals with qualifying diagnoses
- Method and metrics for decedent analysis: a more detailed outline of the analysis steps, as well as a list of descriptive data and metrics that could be generated
- Public Use Death Data File FAQ: a description of the contents of the Public Use Death Data File available from the CDPH, and information on how to acquire the file

LESSONS FROM THE LITERATURE AND THE FIELD

To put the analyses in context, it may be useful to consider a few lessons from the literature and the palliative care field:

- Studies[1] indicate that while most decedents (61%-93%) need palliative care in the final year of life, not everyone needs support from a specialty palliative care service.
- Many individuals who need palliative care won't meet SB 1004 criteria. Organizations need to be aware of this and should develop strategies for meeting the needs of the nonqualifying population.
- When modeling populations that might benefit from palliative care, a useful strategy is to consider diagnosis, functional status, and utilization of health services. The combination of chronic progressive illness, functional limitation, and hospital or nursing home admission is a very good predictor of high costs and need for extra support.
- Coordination among health plans, referring providers, and palliative care providers is needed to identify patients and promote appropriate referrals.

[1] F. E. Murtagh et al., "How Many People Need Palliative Care? A Study Developing and Comparing Methods for Population-Based Estimates," Palliative Medicine 28, no. 1 (January 2014): 49-58.

- Many studies have shown that palliative care reduces use of health services and costs, but none of these studies have focused on an impoverished, complex population, such as those who will be receiving SB 1004 PC. While one pilot of palliative care in a Medi-Cal population has shown promising preliminary results, more study is needed to understand expected outcomes in a safety-net population.

RESOURCES AVAILABLE ON THIS TOPIC PAGE

- Slides used in the Topic 1 workshops
- Condition codes (Excel spreadsheet file)
- Criteria crosswalk
- Method for estimating the number of eligible members based on current plan enrollment
- Methods and metrics for a decedent analysis
- Public Use Death Data File FAQ