Topic 2: The SB 1004 Patient Population*  
(*Adults only)

June 2019

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Review: What Is SB 1004?

- **Senate Bill 1004** (2014) requires Medi-Cal managed care plans (MCPs) to ensure access to palliative care services for eligible patients.
- Implemented January 1, 2018 for adult patients, expanded to include pediatric patients in 2019.
- All Plan Letter (APL) describing plan requirements available at: [http://www.dhcs.ca.gov/provgovpart/Pages/Palliative-Care-and-SB-1004.aspx](http://www.dhcs.ca.gov/provgovpart/Pages/Palliative-Care-and-SB-1004.aspx)

For more information about palliative care and SB 1004, see Topic 1 in this series, **SB 1004 Basics**
Topic 2 Objectives

- Review SB 1004 eligibility criteria for adults
- Review characteristics of the eligible patient population, including how they have historically used health care services in the absence of SB 1004 PC, and findings from an SB 1004 PC pilot
- Review strategies for identifying eligible patients used by health plans and palliative care providers that are delivering SB 1004 PC
- Consider lessons from the literature / the field related to the need for PC generally and identifying patients who may need PC
Palliative Care as Defined in SB 1004

Advance Care Planning can occur at any time, including the POLST form for those with serious illness.

Source: DHCS Palliative Care and SB 1004
Adult Eligibility: General Criteria

• 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
Adult Eligibility: General Criteria

- 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/patient-designated support person agrees to:
  - Attempt in-home, residential-based or outpatient disease management instead of first going to the emergency department; and
  - Participate in Advance Care Planning discussions
Adult Eligibility: 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 co-morbidities

Chronic Obstructive Pulmonary Disease (COPD):
- FEV 1 <35% predicted AND 24-hour oxygen requirement <3 liters per minute OR
- 24-hour oxygen requirement ≥3L per minute
Adult Eligibility: Disease Specific-Criteria

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 Addressing Eligibility Criteria

• Some criteria are documented in claims data
  – *Diagnoses, use of health services, prior hospice enrollment, pharmaceuticals, home O2*

• Some criteria might be documented in an EHR
  – *Lab values/bio-markers, detailed info re stage of illness, ACP/goals of care discussions, functional status*

• Some criteria can only be reported by providers and/or patients/caregivers, or gathered by manual chart review
  – *All possible EHR values if not available from that source, patient preferences, care plans, willingness to attempt in-home therapy and participate in ACP*
GENERAL CRITERIA
• Use of hospital or emergency department, recent disenrollment from hospice, authorization for hospital bed/home O2/other DME

DISEASE-SPECIFIC CRITERIA
• Congestive Heart Failure
  – Hospitalized for CHF
  – Presence of significant co-morbidities
• Chronic Obstructive Pulmonary Disease
  – Authorization/claim for home O2
• Advanced Cancer
  – Stage III or IV solid organ cancer, lymphoma, or leukemia
  – Has received 2 lines of standard chemotherapy
• Liver Disease
  – Co-morbid conditions: ascites, subacute bacterial peritonitis, hepatic encephalopathy, hepatorenal syndrome, or recurrent esophageal varices
What might be documented in (and possible to extract from) an EHR?

GENERAL CRITERIA:
• Functional status (Karnofsky, ECOG, PPS), documentation of hospice education/eligibility discussions, goals of care discussions

DISEASE-SPECIFIC CRITERIA
• Congestive Heart Failure:
  – NYHA heart failure classification III or higher
  – Ejection Fraction <30% for systolic failure
• Chronic Obstructive Pulmonary Disease:
  – FEV 1 <35% predicted
  – 24-hour oxygen requirement
• Advanced Cancer:
  – Karnofsky Performance Scale score ≤70
• Liver Disease:
  – Serum albumin <3.0, and INR >1.3
  – MELD score >19
What is likely only knowable from chart review +/- discussion with providers and patient/family?

GENERAL CRITERIA
• Not eligible for or declines hospice enrollment
• Death within a year would not be unexpected based on clinical status
• Has received appropriate patient-desired medical therapy
• Beneficiary and (if applicable) family/patient-designated support person agrees to:
  – Attempt in-home, residential-based or outpatient disease management instead of first going to the emergency department; and
  – Participate in Advance Care Planning discussions

DISEASE-SPECIFIC CRITERIA
• Congestive Heart Failure
  – No further invasive interventions planned
What Do We Know About the SB 1004 Population?
• Combined publically available information about deaths in California obtained from DHCS and encounter/claims data from SFHN

• SFHN pt. defined as “2+ ambulatory encounters” or “1 hospitalization + 1 ambulatory encounter” in final 2 years of life; exclude individuals with zero contact in final 12 months

• Used primary and secondary diagnosis codes and procedure codes to determine disease groups

• Patients with multiple qualifying conditions (cancer + ESLD) assigned to a single disease group based on highest charges by condition

• For individuals with more than one primary payer, assigned to a single payer based on highest charges by payer
  – 747/2116 had primary payer = Medi-Cal
About how many SB 1004 eligible patients are cared for by the SFHN in a typical year?

552/747 (74%) Medi-Cal beneficiaries (in 2-year data set) had SB1004 qualifying dx’s. Estimated annual volume = 275-300

- Cancer, 125, 45%
- ESLD, 80, 29%
- COPD, 20, 7%
- CHF, 52, 19%
By what point in the last year of life are SB 1004 eligible patients becoming clinically active?

Proportion of SB 1004 eligible population that has become clinically active (begun accessing clinic/hospital/ED services), by month preceding death

- 22% do not present until ≤3 months prior to death

37% in 12 months, 46% in 11 months, 52% in 10 months, 57% in 9 months, 61% in 8 months, 65% in 7 months, 68% in 6 months, 71% in 5 months, 74% in 4 months, 78% in 3 months, 82% in 2 months, 100% in 1 month.
How are costs distributed over the last year of life?

Average cost (all services) per patient, per month prior to death

<table>
<thead>
<tr>
<th>Month</th>
<th>Cost</th>
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<tbody>
<tr>
<td>12</td>
<td>$2,089</td>
</tr>
<tr>
<td>11</td>
<td>$2,195</td>
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<tr>
<td>10</td>
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<tr>
<td>2</td>
<td>$6,677</td>
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<tr>
<td>1</td>
<td>$14,072</td>
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</tbody>
</table>
What is the pattern for hospital admissions in the last year of life?

Number of annual admissions for SB 1004 eligible population (approximately 276 patients) by month preceding death
How many SB 1004 eligible patients are getting PC, and at what point in the disease course? (if only an inpatient PC service is available)?

- 69% of patients not referred to specialty PC
- 25% had 1\textsuperscript{st} PC contact in the final 90 days of life
- 6% had 1\textsuperscript{st} PC contact >90 days before death

Interval between first PC contact and death
- Mean: 60 days
- Median: 26.5 days
- Range: 0-352 days
Are SB 1004 eligible patients clinically active early enough to allow for referral to a PC service?

At month 6 prior to death 68% of population is clinically active, but only 2% have had a contact with the specialty PC service.
Partnership HealthPlan of California (PHC) piloted an intensive outpatient palliative care program – Partners in Palliative Care (PIPC) – beginning in September 2015.

An evaluation of the pilot showed several differences from palliative care programs in other populations and other settings, including a much higher burden of psycho-social issues and surprising challenges, such as a lower than expected completion of advance care planning documentation.

A financial analysis of the first six months of the pilot showed approximately $3 in hospital cost savings for every $1 spent on the palliative care program.

Highlights from an evaluation of that program are summarized in the Partners in Palliative Care Pilot Program Summary, which is available in this section of the SB 1004 Resource Center.
PHP PC Pilot:
Total costs in final 6 months of life

27 matched pairs with full 6 months PHC data prior to death. Pilot enrollment was
90 days prior to death on average.
Methods for Identifying
SB 1004 Eligible Patients
### Identifying Eligible Patients/Members: What Makes It So Hard?

Three types of criteria, hard to find in a single data source:

<table>
<thead>
<tr>
<th></th>
<th>Claims and authorization data</th>
<th>Electronic health records</th>
<th>Screening / assessment findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualifying diagnoses</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Evidence of advanced disease</td>
<td>(✓)</td>
<td>✓</td>
<td>(✓)</td>
</tr>
<tr>
<td>Patient &amp; family preferences</td>
<td>(✓)</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Plan and Provider Survey

• In March 2019 CHCF surveyed 22 Managed Care Plans (MCPs) and 59 PC providers about their experiences implementing SB1004 in 2018
  – 14 plans (64%) and 29 PC providers (49%) responded to the survey
  – Several survey questions focused on strategies and barriers to identifying SB 1004 eligible patients
  – Many MCPs and PC providers consider identifying patients who are eligible for SB 1004 PC as their most persistent and difficult SB 1004 implementation challenge
How does your organization identify potentially eligible members/patients?

<table>
<thead>
<tr>
<th>Plan</th>
<th>Plans</th>
<th>Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan identifies patients through claims data, sends list to PC providers</td>
<td>71%</td>
<td>86%</td>
</tr>
<tr>
<td>Primary &amp; specialty providers asked to refer directly to PC providers</td>
<td>85%</td>
<td>76%</td>
</tr>
<tr>
<td>Non-physician staff at clinics/hospitals/physician offices asked to refer directly to PC providers</td>
<td>43%</td>
<td>55%</td>
</tr>
<tr>
<td>Staff in social service organizations (shelters) asked to refer directly to PC providers</td>
<td>7%</td>
<td>17%</td>
</tr>
<tr>
<td>PC provider teams participate in rounds at local clinics</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>PC provider teams participate in rounds at local hospitals</td>
<td>29%</td>
<td>28%</td>
</tr>
<tr>
<td>Members/patients self-refer</td>
<td>64%</td>
<td>38%</td>
</tr>
</tbody>
</table>

Other common plan strategies:
Identify members in other programs (79%)
Review list of currently hospitalized members and send to PC partner (64%)
Member/Patient Identification: Most Effective Strategies

Plans
✓✓✓ Review lists of currently hospitalized members
✓✓ Plan Case Managers and UM nurses identify
  • Provider referrals
  • PC provider meets with referring providers

Providers
✓✓ Receiving list from plan
  • PC team participates in hospital rounds/warm hand offs
  • Frequent contacts with referring providers (education, marketing)
  • Primary/specialty providers identify (best when PCP involved)
  • “This has proven to be the most difficult component.”
  • “The strategy we are using [is] not effective as the plan is not referring patients at this time.”
Identifying Members/Patients: Least Effective Strategies

PLANS
✓✓✓ Providing lists to palliative care providers (for cold calls)
✓✓ Relying on PCP and specialist referrals
✓✓ Relying on member self-referral

PROVIDERS
✓✓ Cold calling members from lists provided by health plans
  “outdated numbers...members don’t respond well and engagements are lower with the list patients”

• Self-referrals
• Referrals from PCPs, hospital discharge planners
Combining Strategies

Most organizations use a combination of approaches to identify eligible patients, rather than relying on just one. Most combinations include:

- Reviewing patient lists generated from claims, encounter, and authorization data
- Asking primary and specialty care providers to identify eligible patients
- Asking plan staff/other plan programs (such as complex case management) to identify potentially eligible patients
- Seeking referrals from other services that care for seriously ill populations, such as hospital-based PC teams
Reflections and a Resource

• Tension between the value of claims data lists and challenges of using that information effectively
• Recognition of the importance of personal connections, and less with materials or marketing
• **Promising Practices for Identifying Patients**, which is available in this section of the SB 1004 Resource Center, summarizes strategies that plans and PC provider organizations commonly use to identify eligible patients.
Lessons and Observations From The Field

1) Most decedents need PC in the final year of life

2) Many individuals who need extra support won’t meet SB 1004 criteria

3) Condition + functional limitation + utilization predicts high cost / high need
Lesson #1

Most decedents need some kind of palliative care in the final year of life
How many people need palliative care? A study developing and comparing methods for population-based estimates

Fliss EM Murtagh¹, Claudia Bausewein², Julia Verne³, E Iris Groeneveld¹, Yvonne E Kaloki¹ and Irene J Higginson¹

Abstract

**Background:** Understanding the need for palliative care is essential in planning services.

**Aim:** To refine existing methods of estimating population-based need for palliative care and to compare these methods to better inform their use.

**Design:** (1) Refinement of existing population-based methods, based on the views of an expert panel, and (2) application/comparison of existing and refined approaches in an example dataset. Existing methods vary in approach and in data sources. (a) Higginson used cause of death/symptom prevalence, and using pain prevalence, estimates that 60.28% (95% confidence interval = 60.20%–60.36%) of all deaths need palliative care, (b) Rosenwax used the *International Statistical Classification of Diseases and Related Health Problems–10th Revision (ICD-10)* causes of death/hospital-use data, and estimates that 37.01% (95% confidence interval = 36.94%–37.07%) to 96.61% (95% confidence interval = 96.58%–96.64%) of deaths need palliative care, and (c) Gómez-Batiste used percentage of deaths plus chronic disease data, and estimates that 75% of deaths need palliative care.

**Setting/participants:** All deaths in England, January 2006–December 2008, using linked mortality and hospital episode data.

**Results:** Expert panel review identified changing practice (e.g. extension of palliative care to more non-cancer conditions), changing patterns of hospital/home care and multiple, rather than single, causes of death as important. We therefore refined methods (using updated ICD-10 causes of death, underlying/contributory causes, and hospital use) to estimate a minimum of 63.03% (95% confidence interval = 62.95%–63.11%) of all deaths needing palliative care, with lower and upper mid-range estimates between 69.10% (95% confidence interval = 69.02%–69.17%) and 81.87% (95% confidence interval = 81.81%–81.93%).

**Conclusions:** Death registration data using both underlying and contributory causes can give reliable estimates of the population-based need for palliative care, without needing symptom or hospital activity data. In high-income countries, 69%–82% of those who die need palliative care.
Estimating PC Need in a Population


- Reviewed several approaches used in Europe / Australia
- Developed a new approach that uses four methods to estimate need
- Estimates are based on death certificate data +/- hospital utilization data
- Applied definitions / criteria to several years of death records from England
- Generated estimates of proportion of all decedents who might need PC, using each of the 4 methods
Minimal Estimate

Primary cause of death from any of 10 conditions with high probability of PC need

1. Cancer
2. Heart disease (chronic)
3. Cerebrovascular disease (stroke)
4. Renal disease (chronic renal failure)
5. Liver disease
6. Respiratory disease (chronic lung disease)
7. Respiratory disease (respiratory failure)
8. Neurodegenerative diseases
9. Dementia, Alzheimer’s
10. HIV/AIDS

Minimal estimate = 63% of all deaths
Deaths where the individual was hospitalized with the same condition as the cause of death, in the year preceding death

*Lower mid-range estimate = 69% of all deaths*
Deaths with any mention on the death certificate of one of the 10 conditions (primary, underlying or contributory cause of death)

Upper mid-range estimate = 83% of all deaths
Maximal Estimate

All deaths apart from poisoning, injury, maternal, neonatal or perinatal deaths

*Maximal estimate = 97% of all deaths*

Low-estimate of need = 61% of all deaths
High-estimate of need = 93% of all deaths
Lesson #2

Many individuals who need extra support won’t meet SB 1004 criteria, and among those who do, many won’t be identified or referred, and of those who are identified/referred not all will accept services.
SB1004 Population in Context

- Patients who would benefit from PC
- Patients with SB 1004 conditions
- SB 1004 eligible patients
- Eligible patients who are referred/identified
- Patients who are able/willing to accept services
Number of Eligible Patients is a Starting Point

- Providers need to know about and refer to the program.
- Eligibility needs to be recognized early enough to allow for a referral to PC.
- Patients need to be willing and able to accept services.

Take home: It is likely that only a subset of individuals who would benefit from PC will in fact be eligible AND will be referred AND will be willing / able to accept services.
Meeting the Needs of Those Who Don’t Qualify

• Determination of eligibility is often difficult to do without an in-person assessment.
  – Many plans pay PC teams or other providers to conduct a comprehensive assessment, as this can be a time-consuming endeavor.
  – Findings can be used to direct patients to other programs, if they do not qualify for SB 1004 PC.
• Plans and providers should be mindful of the population that needs extra support but doesn’t qualify for SB 1004 PC, and how to deliver what patients and families need in a cost-effective, sustainable way.
Lesson #3

Condition + functional limitation + utilization predicts high cost / high need
Identifying Older Adults with Serious Illness: A Critical Step toward Improving the Value of Health Care


Objective. To create and test three prospective, increasingly restrictive definitions of serious illness.


Study Design. We evaluated subjects’ 1-year outcomes from the interview date when they first met each definition: (A) one or more severe medical conditions (Condition) and/or receiving assistance with activities of daily living (Functional Limitation); (B) Condition and/or Functional Limitation and hospital admission in the last 12 months and/or residing in a nursing home (Utilization); and (C) Condition and Functional Limitation and Utilization. Definitions are increasingly restrictive, but not mutually exclusive.

Data Collection. Of 11,577 eligible subjects, 5,297 met definition A; 3,151 definition B; and 1,447 definition C.

Principal Findings. One-year outcomes were as follows: hospitalization 33 percent (A), 44 percent (B), 47 percent (C); total average Medicare costs $20,566 (A), $26,349 (B), and $30,828 (C); and mortality 13 percent (A), 19 percent (B), 28 percent (C). In comparison, among those meeting no definition, 12 percent had hospitalizations, total Medicare costs averaged $7,789, and 2 percent died.

Conclusion. Prospective definitions of severe illness and health care utilization can help in evaluating the costs and outcomes of health care.
Predictors of High Cost / High Need

11,557 Medicare beneficiaries, Health and Retirement Study 2000-2012, 1 year outcomes

**Condition**: One or more severe medical conditions

**Functional Limitation**: Receiving assistance with ADLs

**Utilization**: Hospital admission in last 12 months or nursing home resident

A: Condition and / or Functional Limitation
B: Condition and / or Functional Limitation and Utilization
C: Condition and Functional Limitation and Utilization
## Predictors of High Cost / High Need

<table>
<thead>
<tr>
<th>Group</th>
<th>Hospitalization</th>
<th>Medicare costs</th>
<th>Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition and / or Functional Limitation</td>
<td>33%</td>
<td>$20,566</td>
<td>13%</td>
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<tr>
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<tr>
<td>Condition and Functional Limitation and Utilization</td>
<td>47%</td>
<td>$30,828</td>
<td>28%</td>
</tr>
</tbody>
</table>
Key Points: Eligibility Criteria

• Eligibility is based on qualifying diagnosis, evidence of advanced disease, and patient and family preferences.

• In most cases, information addressing all three categories of eligibility criteria cannot be culled from a single source.

Useful Resource: **All Plan Letter** (APL), which includes a description of eligibility criteria:

http://www.dhcs.ca.gov/provgovpart/Pages/Palliative-Care-and-SB-1004.aspx
Key Points: Population Characteristics

- The population that is eligible for SB 1004 PC is characterized by late presentation with advanced disease, high health care costs in the final months of life, and significant psychosocial needs.

- A pilot showed that delivering home-based PC can alter the way patients use health services.

Useful Resource: Partnership HealthPlan Partners in Palliative Care Pilot Program Summary, available in this section of the SB 1004 Resource Center
Key Points: Identification Strategies

- Many plans and PC providers consider identifying patients who are eligible for SB 1004 PC as their most persistent and difficult SB 1004 implementation challenge.

- Most plans and providers use a combination of strategies to identify patients.

Useful Resource: **Promising Practices for Identifying Patients**, available in this section of the SB 1004 Resource Center
Key Points: Lessons from the Field

• The majority of decedents need PC in the final year of life.

• Plans and providers should consider how to serve patients who may need PC (an extra layer of support) but do not meet SB 1004 criteria.

• “Condition + functional limitation + high/specific types of health care use” is a good predictor of high cost/high need.
Check Out All of the SB 1004 Resource Center Topics

1. SB 1004 Basics
Includes basic information about SB 1004 requirements, as well as survey data collected from health plans and provider organizations describing early experiences implementing SB 1004

2. Patient Population
Includes a review of eligibility criteria, characteristics of the eligible patient population, and strategies for identifying eligible patients

3. Services, Costs, Payment
Includes a review of required services, staffing models used by PC providers, payment models, variables that impact cost of care delivery, and strategies for increasing efficiency

4. Engaging Patients & Providers
Reviews strategies for engaging patients, strategies for engaging providers who might refer eligible patients, and options for optimizing referral processes

5. Optimizing for Success
Includes a review of the factors that promote success in launching and sustaining PC programs

6. Quality and Impact
Reviews data that health plans report to DHCS, approaches to quality assessment in PC, and tools and resources for plans and providers to support improvement efforts

7. Webinars
Provides an archive of the recorded webinars from CHCF’s 2017-18 SB 1004 Technical Assistance Series