Agenda Item 11:
Severity of Area of Unmet Need

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Project Background

- This project originated from the Areas of Unmet Need workgroup:
  - The workgroup included two Commissioners: Dr. Jasmeet Bains and Dr. Katherine Flores.
  - The purpose of the workgroup was to explore a more effective method to measure primary care shortage areas.

- Commission voted to create a severity measure at the June 2019 policy meeting.
  - Maximum 5 bonus points for graduates.
  - Maximum 5 bonus points for training sites.

Purpose of Project

- To create a methodology for measuring the severity of shortage in an area of unmet need.

- To create a method of assigning bonus points to applicants based on their placement of training sites and grads.

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Measuring Severity

- Severity is based on the provider-to-population (P2P) ratio. A lower ratio indicates greater severity of need.

- Example:

Area	Ratio	Severity Level
A	0.00040 (1:2,500)	Medium
B	0.00003 (1:4,000)	High
C	0.00200 (1:500)	Low

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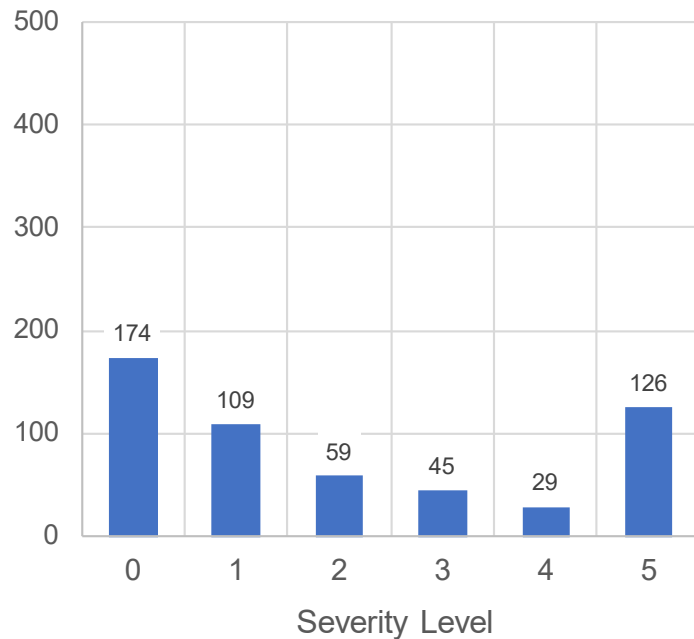Planning and Development

Severity Level

- A number that indicates an area's shortage severity.

- Based on the P2P ratio.

- Three sets of ranges:
  - One based on the PCSA P2P ratio ranges.
  - One based on the HPSA ranges.
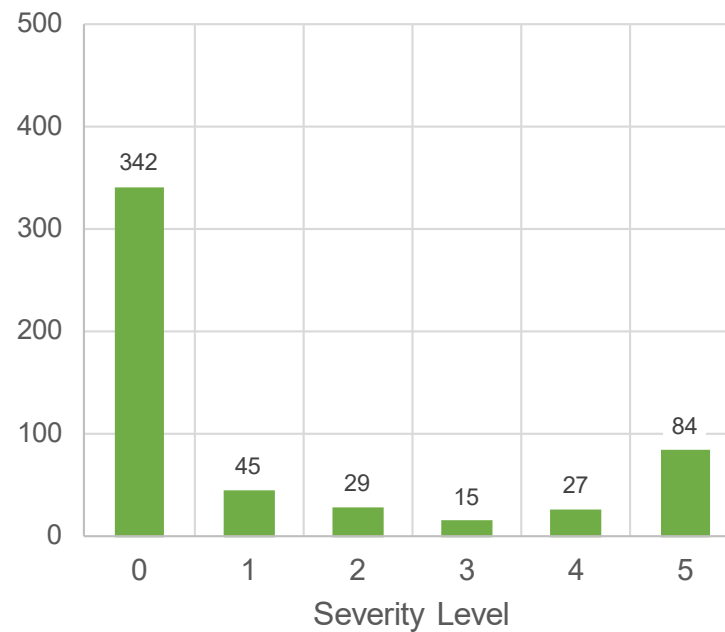 - One based on a new set of ranges between the two.

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Severity Level Ranges: Three Options

Severity Level	PCSA-Based Range	Middle Range	HPSA-Based Range
0	1:1,000 or less	1:2,000 or less	1:3,000 or less
1	1:1,000 to 1:1,500	1:2,000 to 1:2,500	1:3,000 to 1:3,500
2	1:1,500 to 1:2,000	1:2,500 to 1:3,000	1:3,500 to 1:4,000
3	1:2,000 to 1:2,500	1:3,000 to 1:3,500	1:4,000 to 1:5,000
4	1:2,500 to 1:3,000	1:3,500 to 1:5,000	1:5,000 to 1:10,000
5	1:3,000 or more	1:5,000 or more	1:10,000 or more

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Severity Level Options: MSSA Distribution

PCSA-Based Method

Severity Level	Value
0	174
1	109
2	59
3	45
4	29
5	126

Middle Range Method

Severity Level	Value
0	342
1	45
2	29
3	15
4	27
5	84

HPSA-Based Method

Severity Level	Value
0	416
1	15
2	13
3	14
4	34
5	50

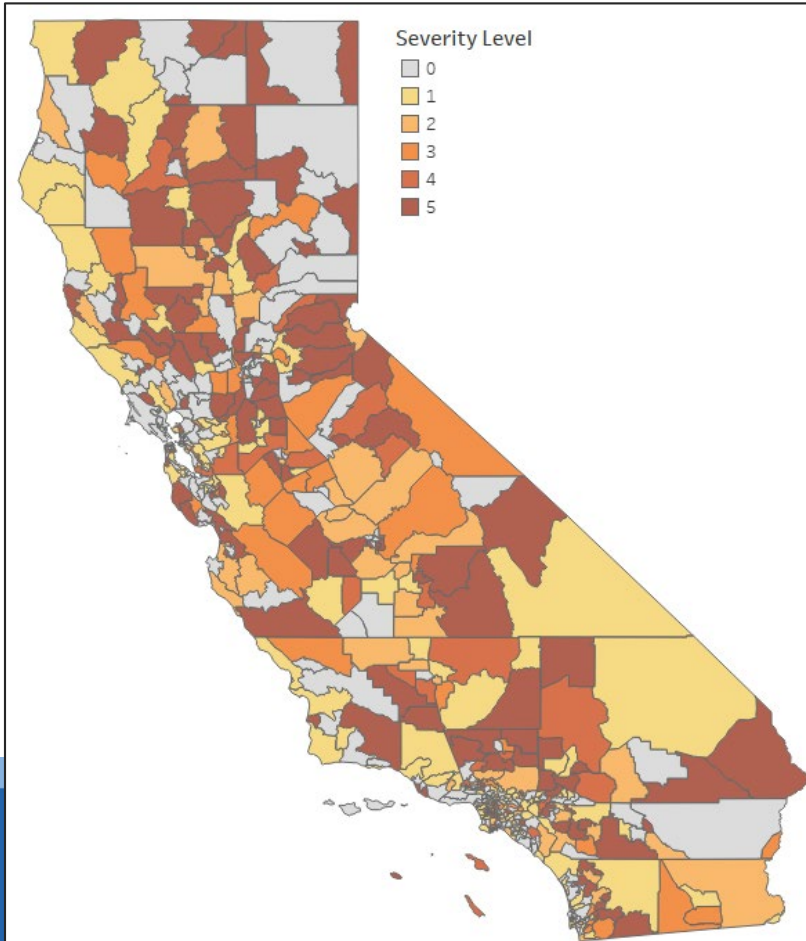OSHPD
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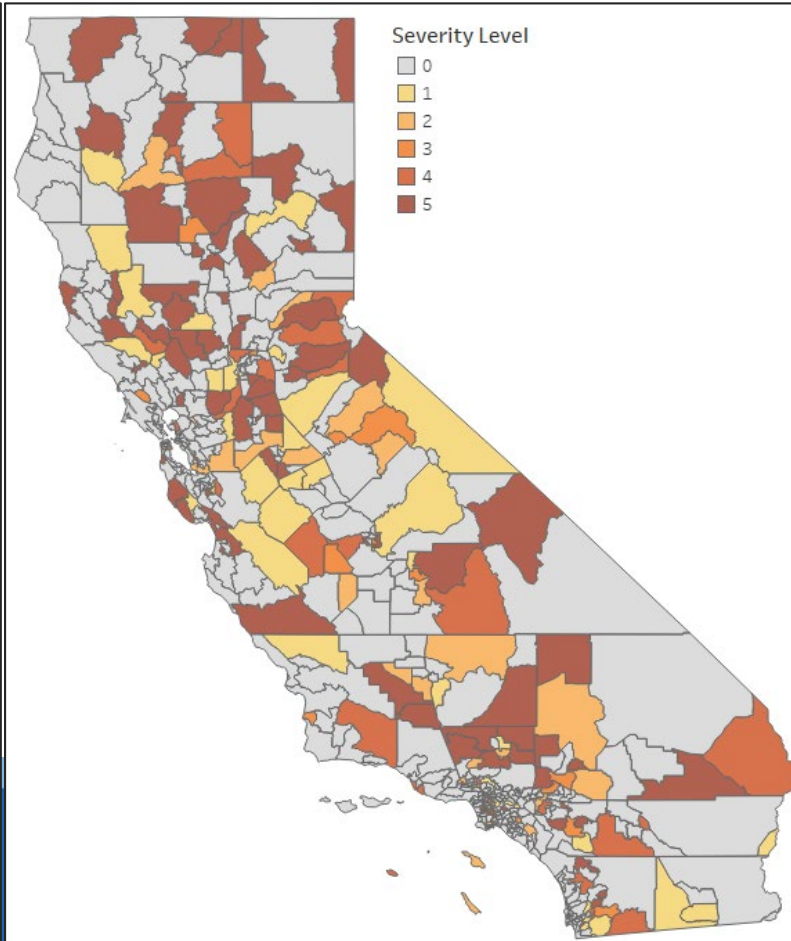Planning and Development

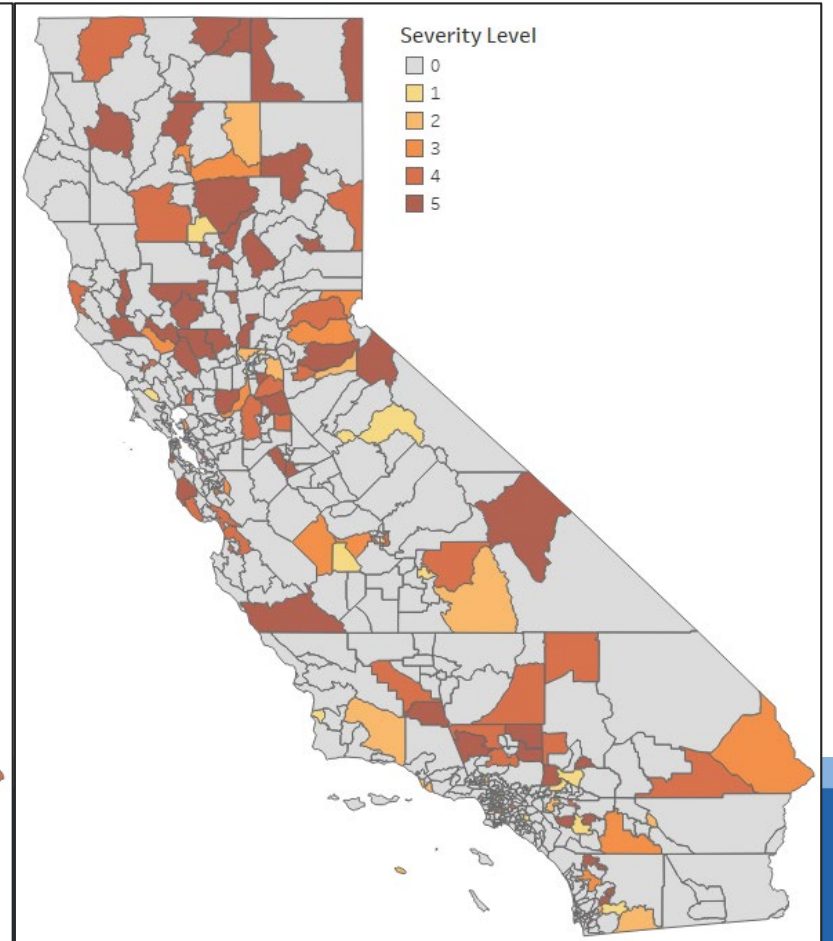# Severity Level Options: MSSA Distribution Map

PCSA-Based Severity Level

Middle Range Severity Level

HPSA-Based Severity Level

Severity Index

- A Severity Index is an overall measure of a program's presence in shortage areas.
    - The Graduate Severity Index (GSI) is based on the location of graduates' practice sites.
    - The Training Site Severity Index (TSSI) is based on the location of programs' training sites.

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Severity Index Calculation

- Based on the number of grads/training sites in each severity level multiplied by the respective severity level.

- Example:

Severity Level	# of Grads	Severity Level x Grads	Product
0	28	0 x 28	0
1	35	1 x 35	35
2	22	2 x 22	44
3	16	3 x 16	48
4	8	4 x 8	32
5	3	5 x 3	15
Total	112	--	174

- Graduate Severity Index: 174 / 112 = 1.55

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Scoring Severity Indices

- Step 1: Eliminate all programs with a severity index of 0 (i.e., a program with no locations in an area with a severity score greater than 0) from consideration for bonus points.

- Step 2: Divide the remaining programs into five tiers.

- Step 3: Assign bonus points based on tier.
  - Top tier = 5 points
  - Second tier = 4 points
  - Third tier = 3 points
  - Fourth tier = 2 points
  - Fifth tier = 1 point

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Scoring Severity Indices: Analysis

	PCSA-Based Method	Middle Range Method	HPSA-Based Method
# Receiving Any Bonus Points	67	49	36
# Receiving Graduate Bonus Points	*54*	*41*	*29*
# Receiving Training Site Bonus Points	*60*	*24*	*15*
Average Bonus Points Awarded	5.2	2.9	1.9
Average Total Points w/ Bonus (Average w/out = 68.3)	72.3	70.5	69.8
# Programs that Changed Tiers	24	21	26

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Considerations

- Total funding will be minimally affected by adding severity bonus points.
- Three options for measuring severity:
  - PCSA-based method is most generous (shortage starts at 1:1,000).
  - HPSA-based method is least generous (shortage starts at 1:3,000).
  - Middle-range method is in between (shortage starts at 1:2,000).

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Questions?

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