



# KG Vaccination Rates in Orange County— 2 Years After SB277 Implementation

ORANGE COUNTY IMMUNIZATION COALITION  
BI-MONTHLY EDUCATION MEETING

November 14, 2018



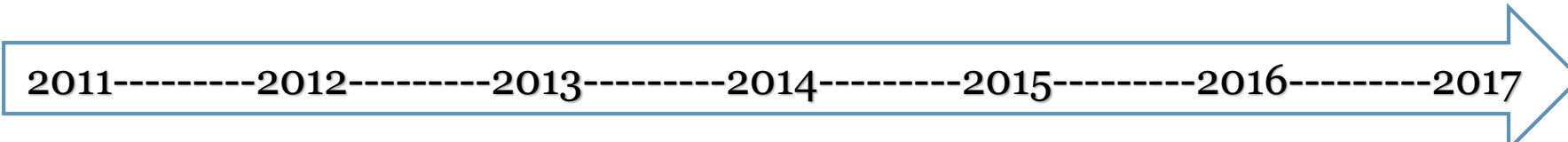
David Núñez, MD, MPH, FAAP  
Family Health Medical Director  
Orange County Health Care Agency



# Common Reasons for Vaccine Delay/Refusal

- Concern about unproven long term side effects
- Distrust of vaccines; conspiracy theories (preservatives, heavy metals, long term effects)
- Infants' immune systems will be overwhelmed by vaccines (too many, too soon)
- Risk of infection low; diseases are not that bad; belief in “natural immunity”
- Pain and discomfort due to vaccines
- Other barriers (cost, transportation, inconvenience, philosophical and religious beliefs)
- **Permissive state exemption policies**

# Recent Events Impacting Childhood Vaccinations

A large blue arrow pointing to the right, containing a timeline of years from 2011 to 2017.

2011-----2012-----2013-----2014-----2015-----2016-----2017

**2011** – backdrop of increasing PBEs in CA → AB 2109 introduced → signed in 2012 \*with Governor's message

**2012** – 8 measles cases in CA

**2013** – 18 measles cases in CA (2 in OC)

**1/1/14** – AB 2109 goes into effect, requires provider documentation of PBE/VPD risks

**2014** – 75 measles cases in CA (24 in OC/13 in LA)

**2015** – 125 measles cases in CA (33 in OC/28 in LA) Disneyland/OC  
Measles outbreak—winter 2014-15

**2015** – SB 277 introduced/signed: elimination of PBEs—effective 1/1/16  
and requiring vaccine compliance effective 7/1/16

# LA Times February, 2016

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## Editorial California's new vaccine law is already a success



People march across the intersection of Colorado and Ocean Avenue during an anti-vaccination rally in Santa Monica on July 3, 2015. (Los Angeles Times)

By **The Times Editorial Board** · [Contact Reporter](#)

FEBRUARY 2, 2016, 5:05 AM

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—The New York Times

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A New Musical



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Los Angeles Times

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## Vaccination rate jumps in California after tougher inoculation law



Dr. Monica Asnani says goodbye to Kristian Richard, being held by his mother, Natasha, after he was given a measles shot in Los Angeles in 2015. (McMillan/Los Angeles Times)

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L.A. NOW LOCAL




## Pushback against immunization laws leaves some California schools vulnerable to outbreaks




By SOUMYA KARLAMANGLA

JUL 13, 2018

5:00 AM





Dr. Bob Sears examines 2-month-old twins Andrew and William Sandoval in his office in 2014 as their mother, Karissa Sandoval, looks on. Among his many books on pediatrics, Sears has written "The Vaccine Book," in which he discusses his concerns about vaccines. (Don Bartlett / Los Angeles Times)

Two years after California adopted one of the toughest child vaccination laws in the nation, the state's immunization rates are near record high levels.

Approved after a measles outbreak that originated at Disneyland, the law makes California one of only three states that bar parents from citing their personal beliefs to avoid having their children vaccinated.

Yet, even with the strict new law, there remain schools and neighborhoods with dangerously low vaccination rates, experts say, largely because a growing number of parents are obtaining doctors' notes exempting their kids from the required shots.


At least 95% of the population needs to be vaccinated to prevent an outbreak of a highly contagious disease such as measles, experts say.

But at 105 schools in the state, 10% or more of kindergartners had a medical exemption in the school year that ended last month, according to a Los Angeles Times analysis of state

LATEST L.A. NOW


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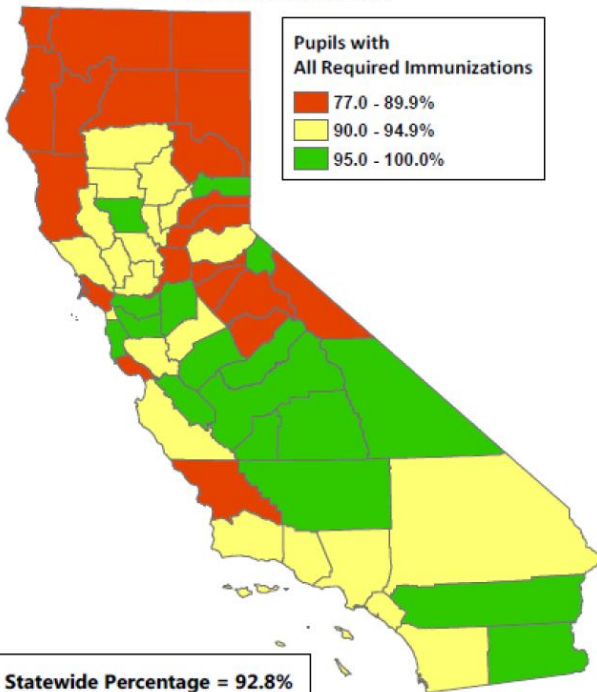
FBI raids home and office of Los Angeles City Councilman Jose Huizar

38m

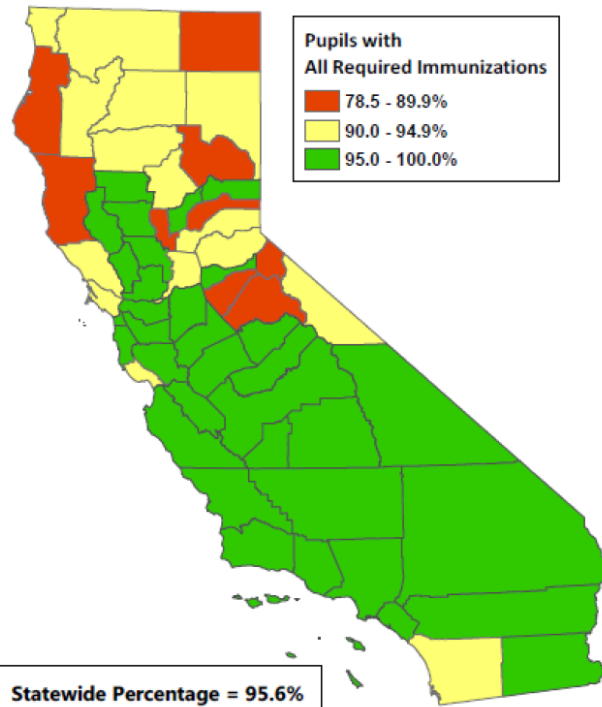


# California County KG Immunization Rates

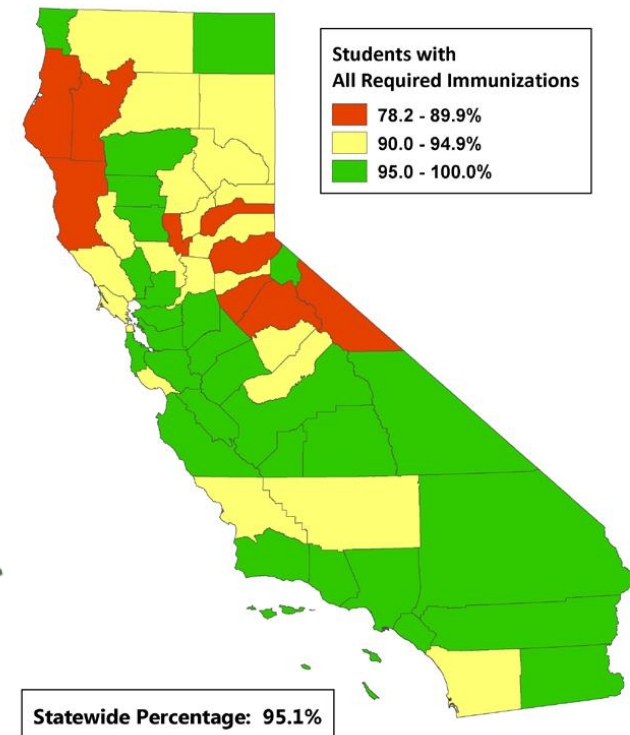
2015-2016 School Year



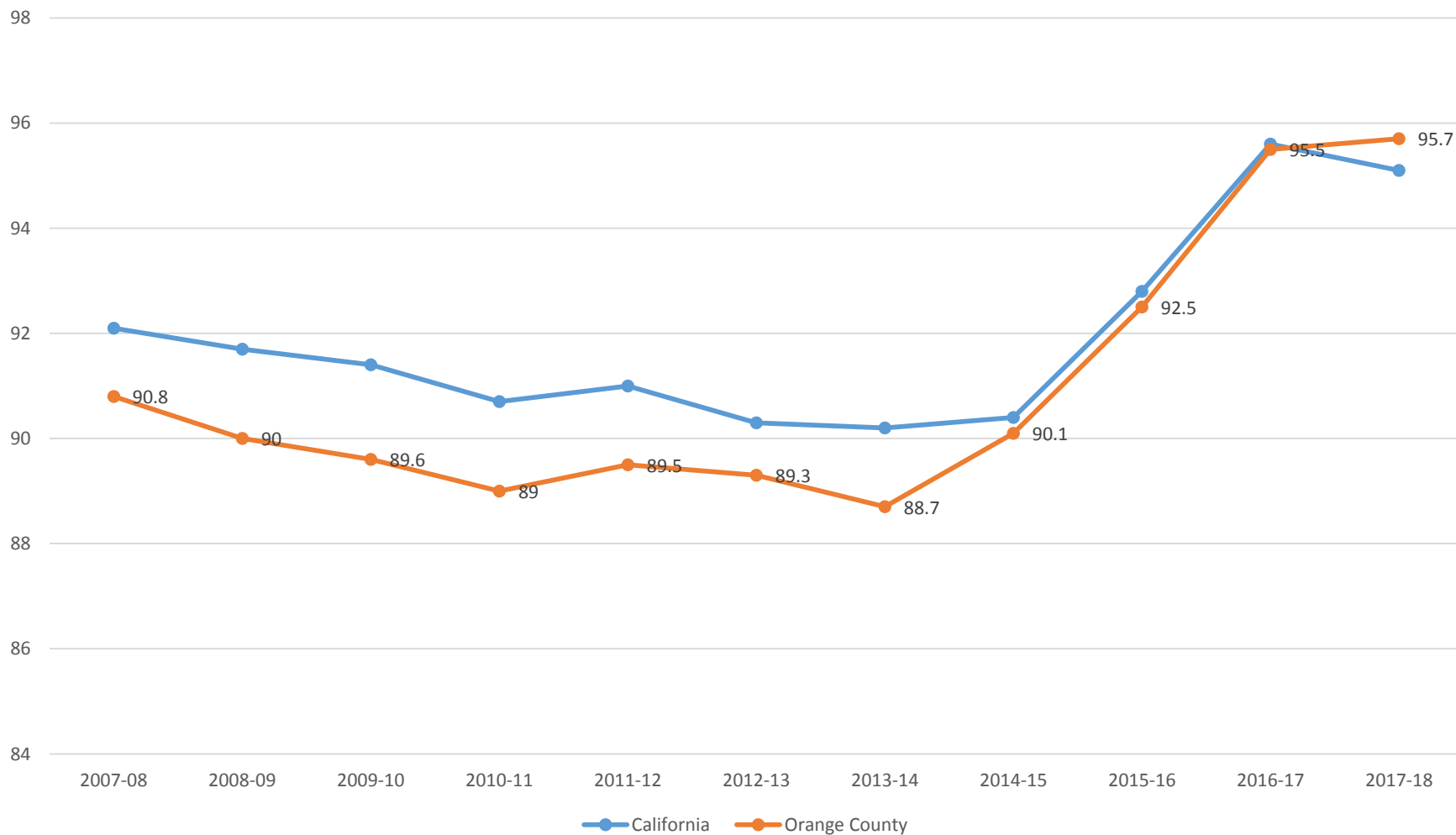
2016-2017 School Year



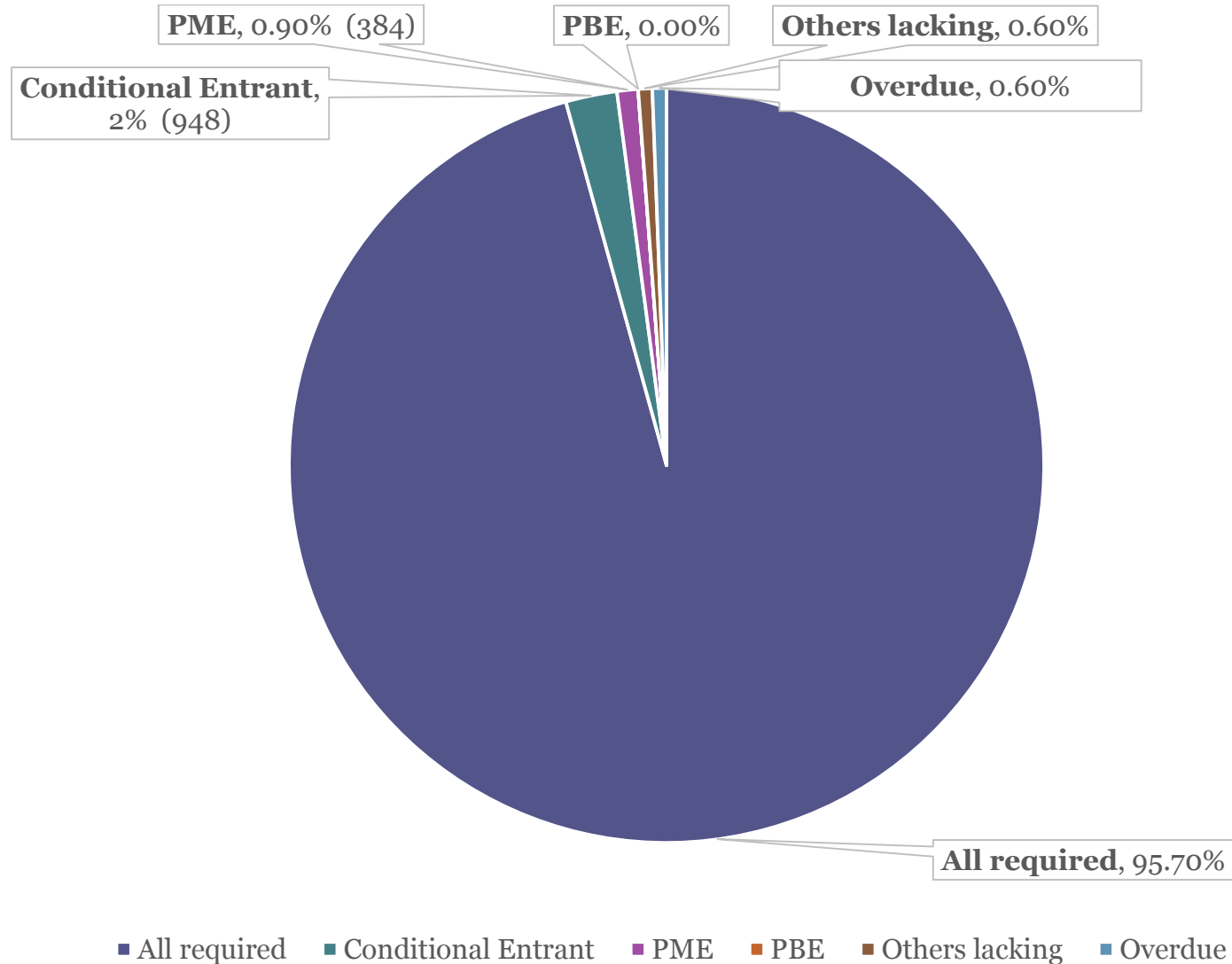
2017-2018 School Year



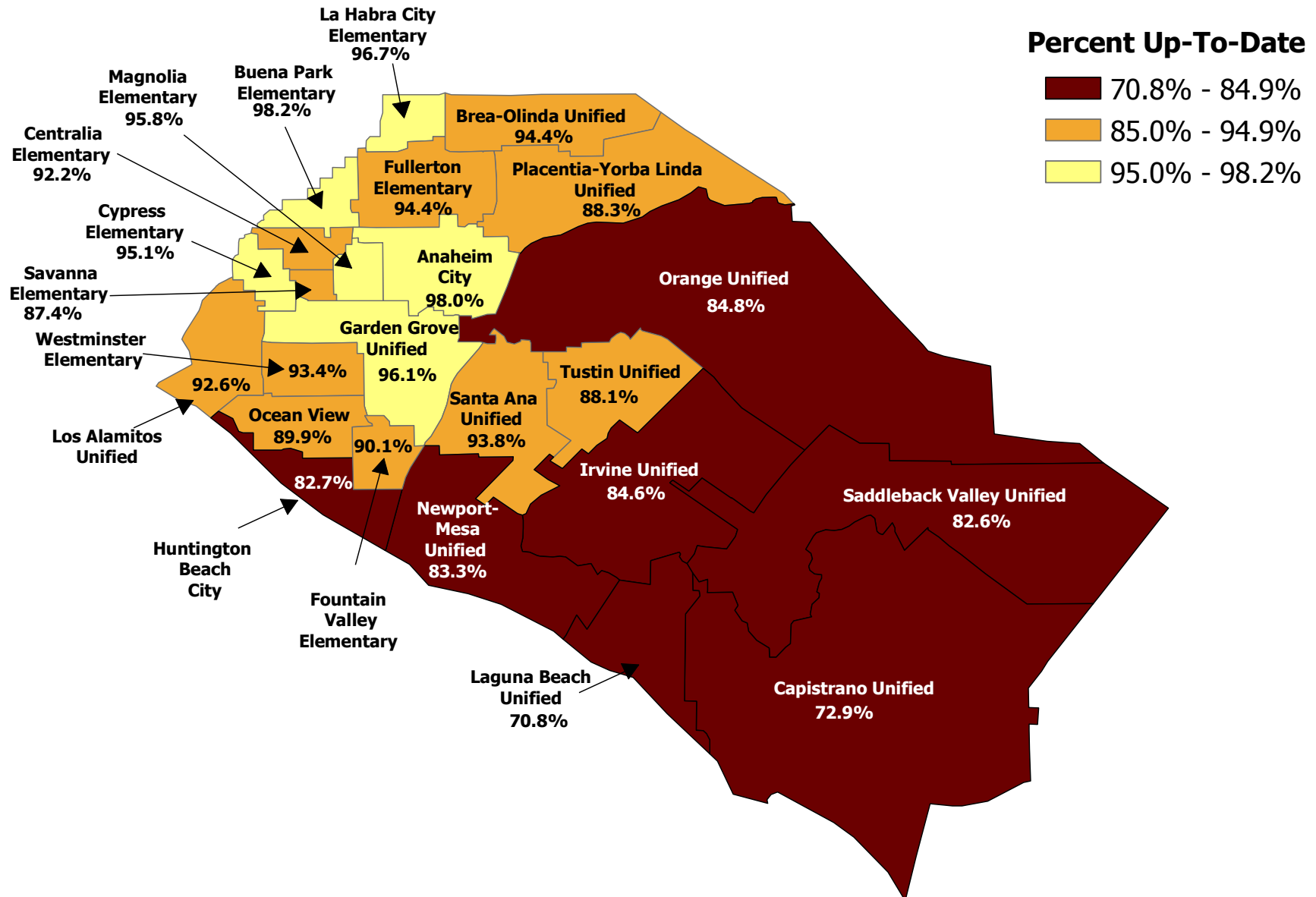
# Up-to-Date Immunizations at Kindergarten Entry: Orange County and California, 2007 – 2017



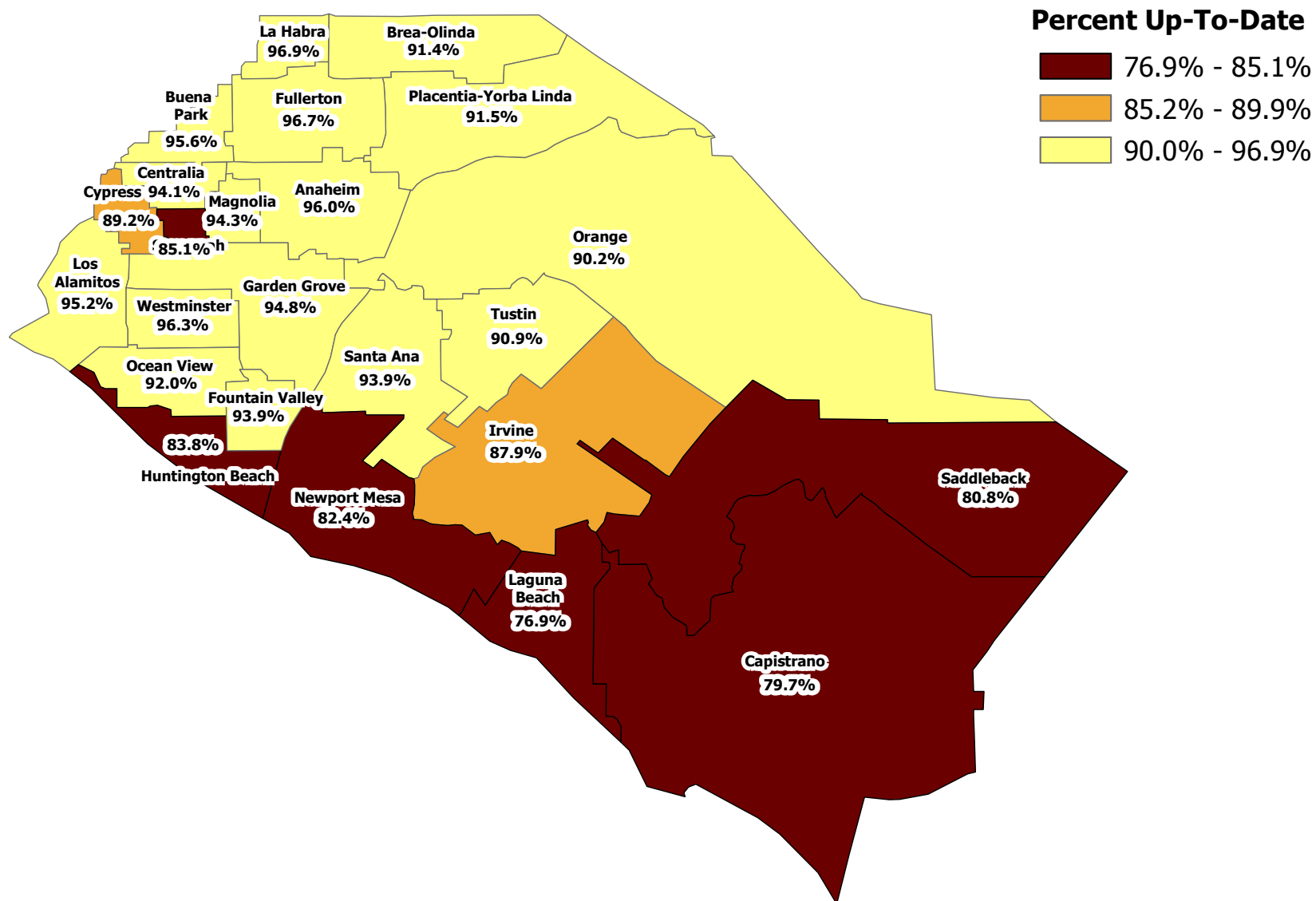
# Orange County 2017-18 Admission Status Categories



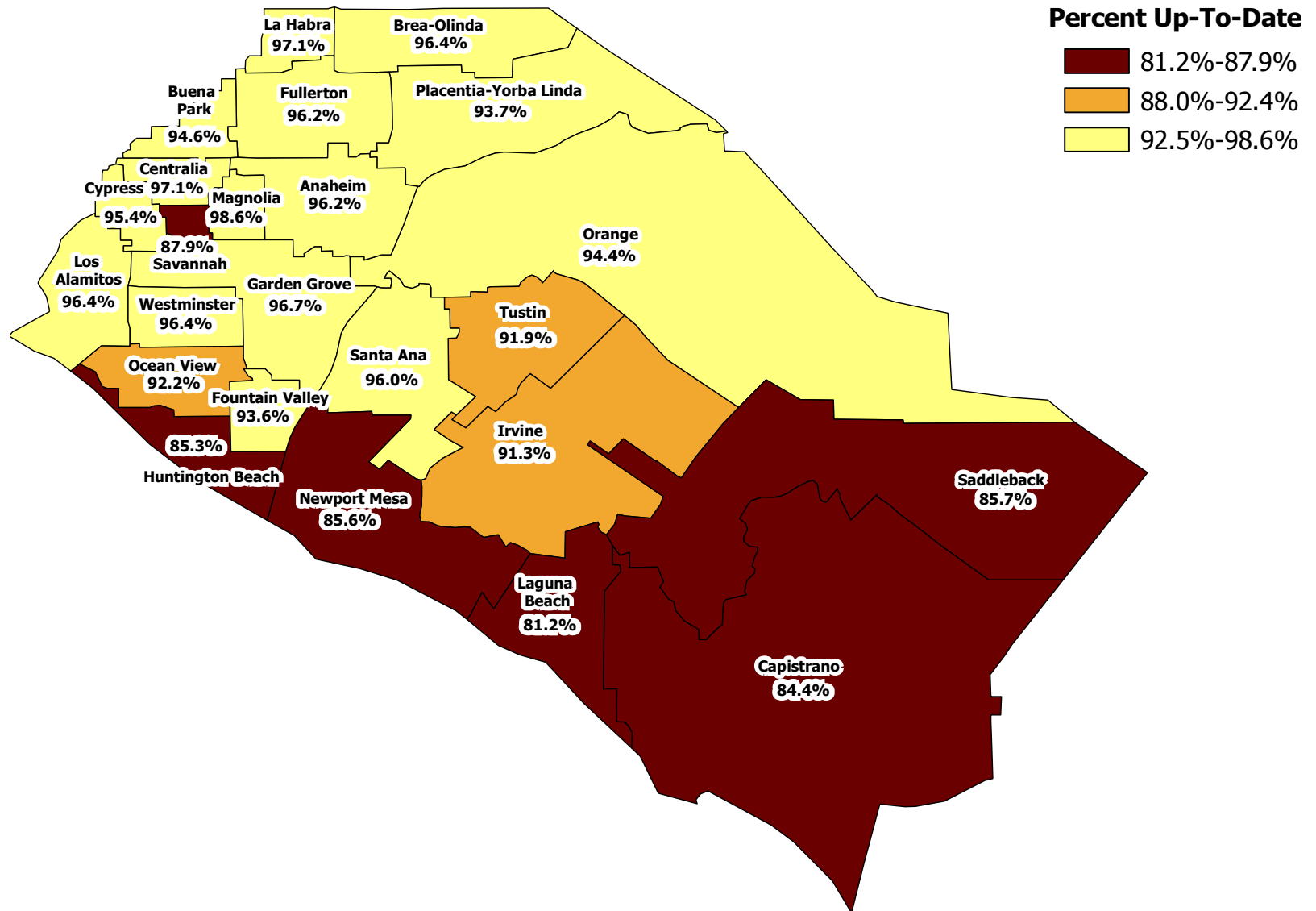
# Up-to-Date Immunizations at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2013-14



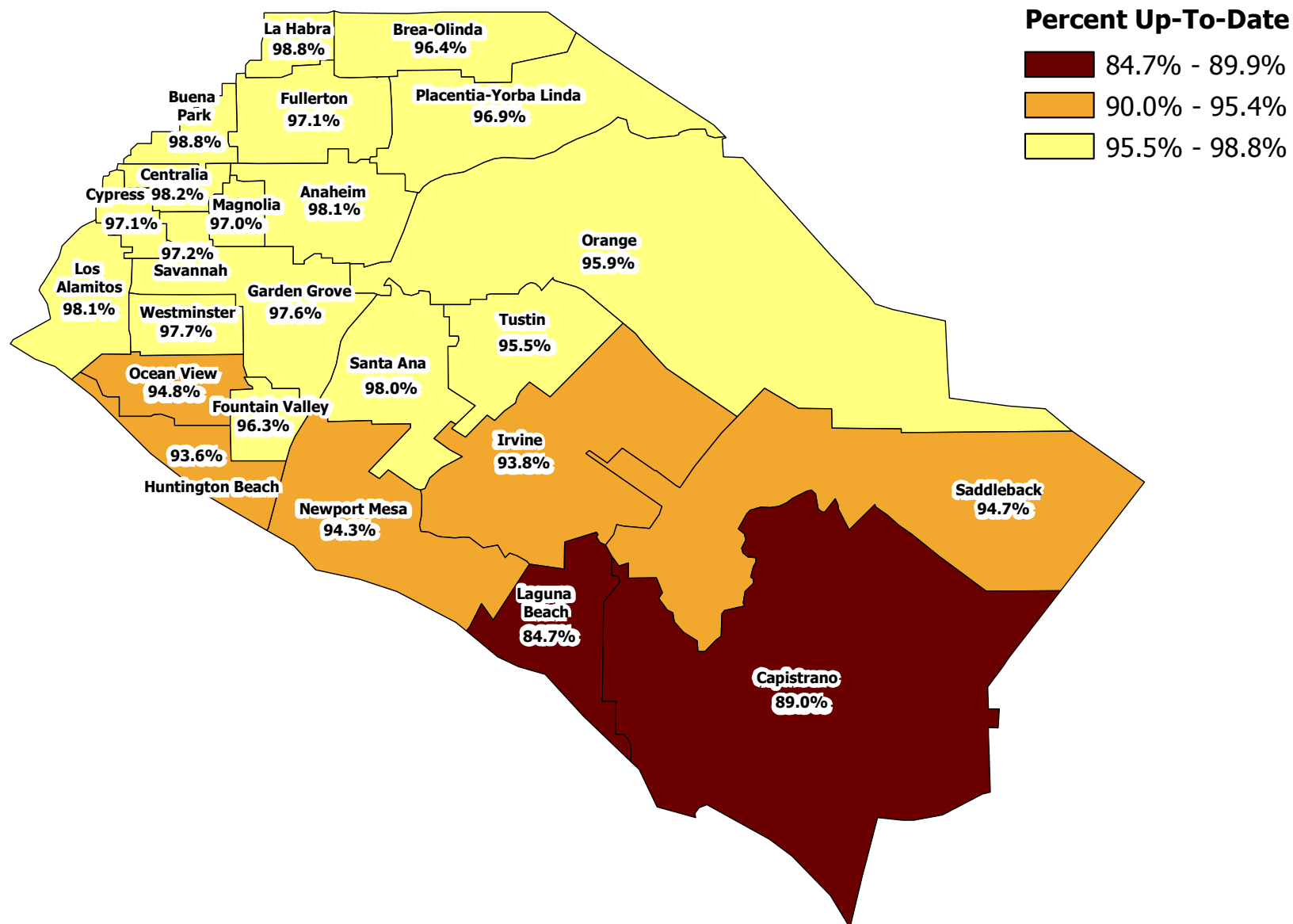
# Up-to-Date Immunizations at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2014-15



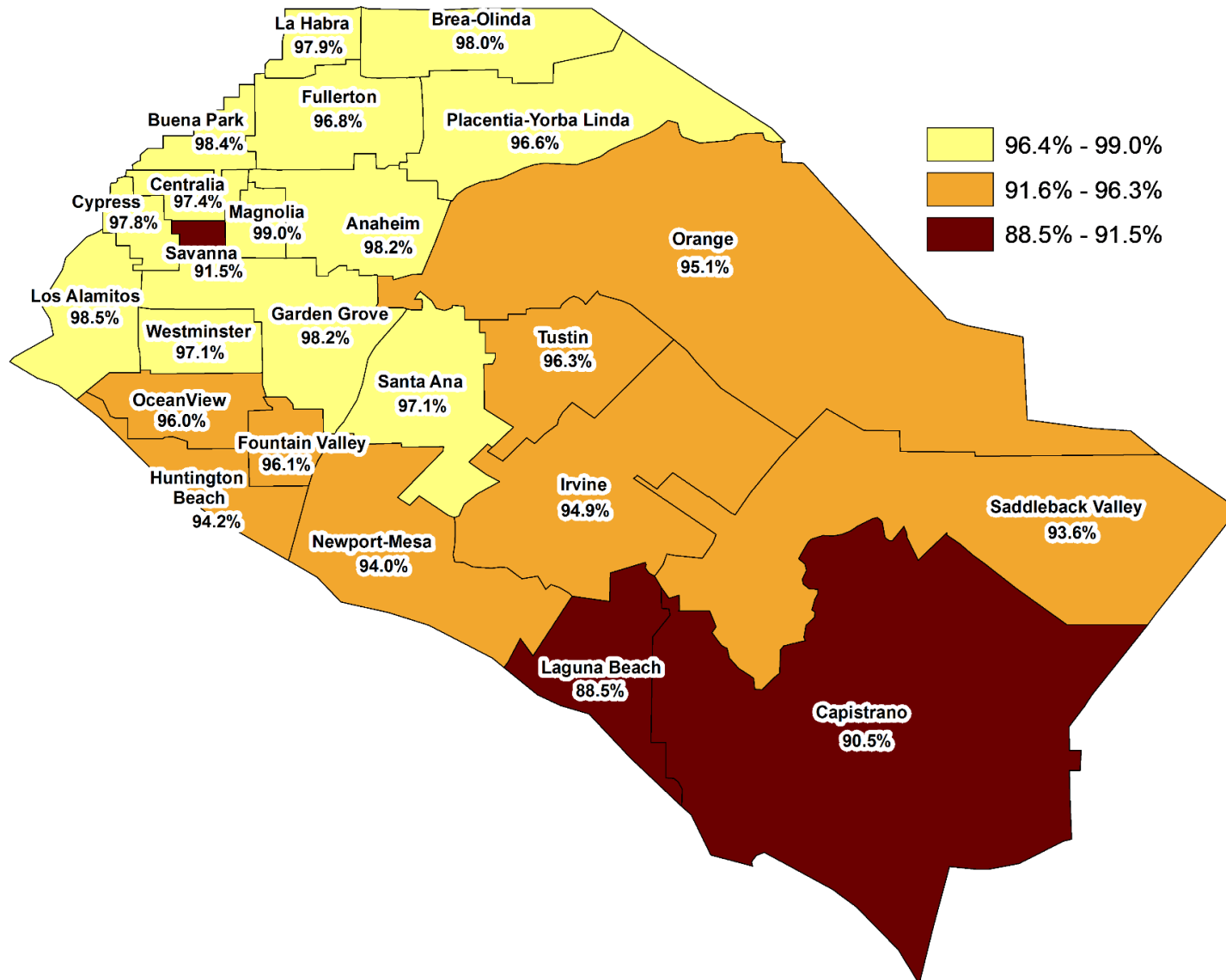
# Up-to-Date Immunizations at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2015-16



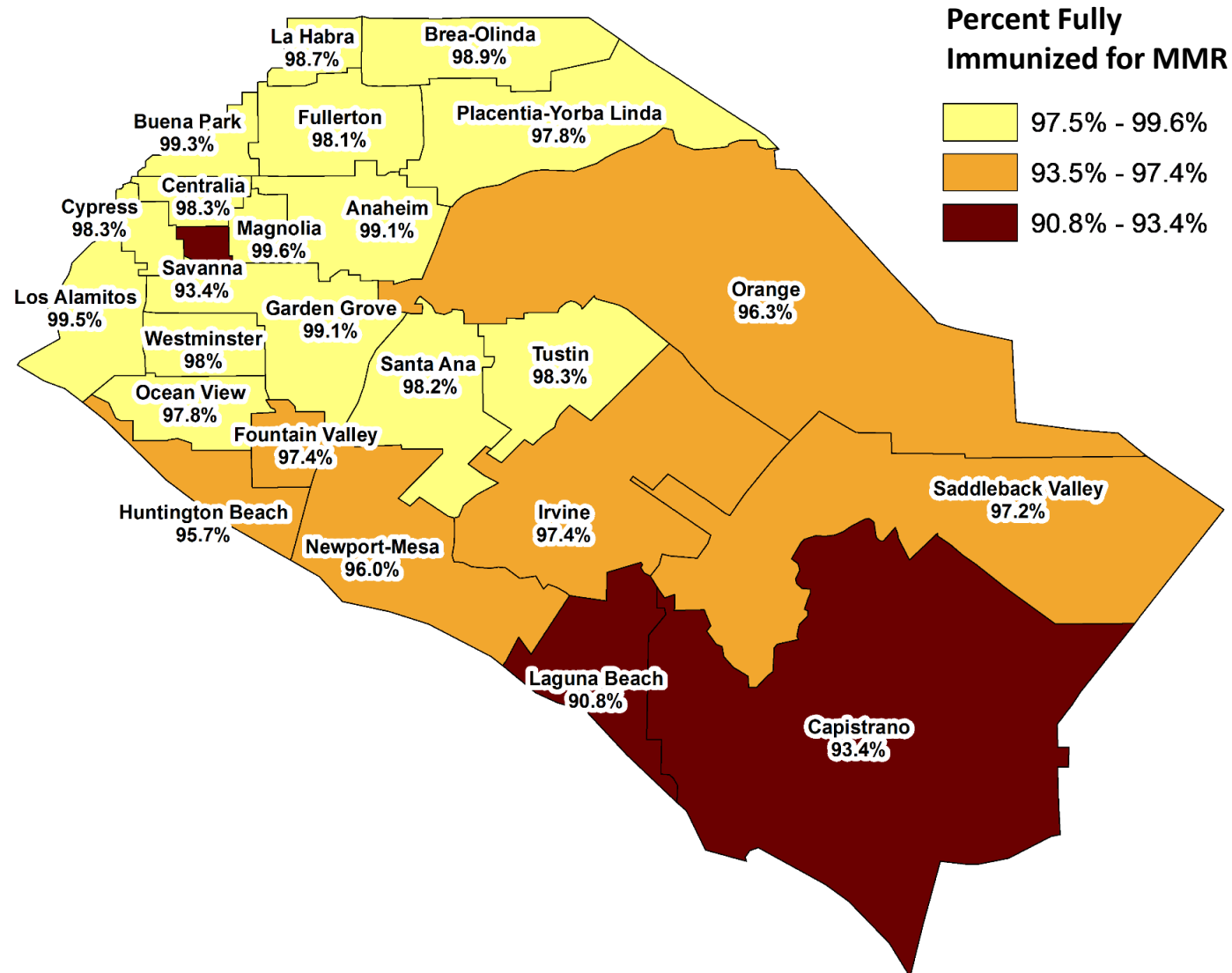
# Up-to-Date Immunizations at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2016-17.



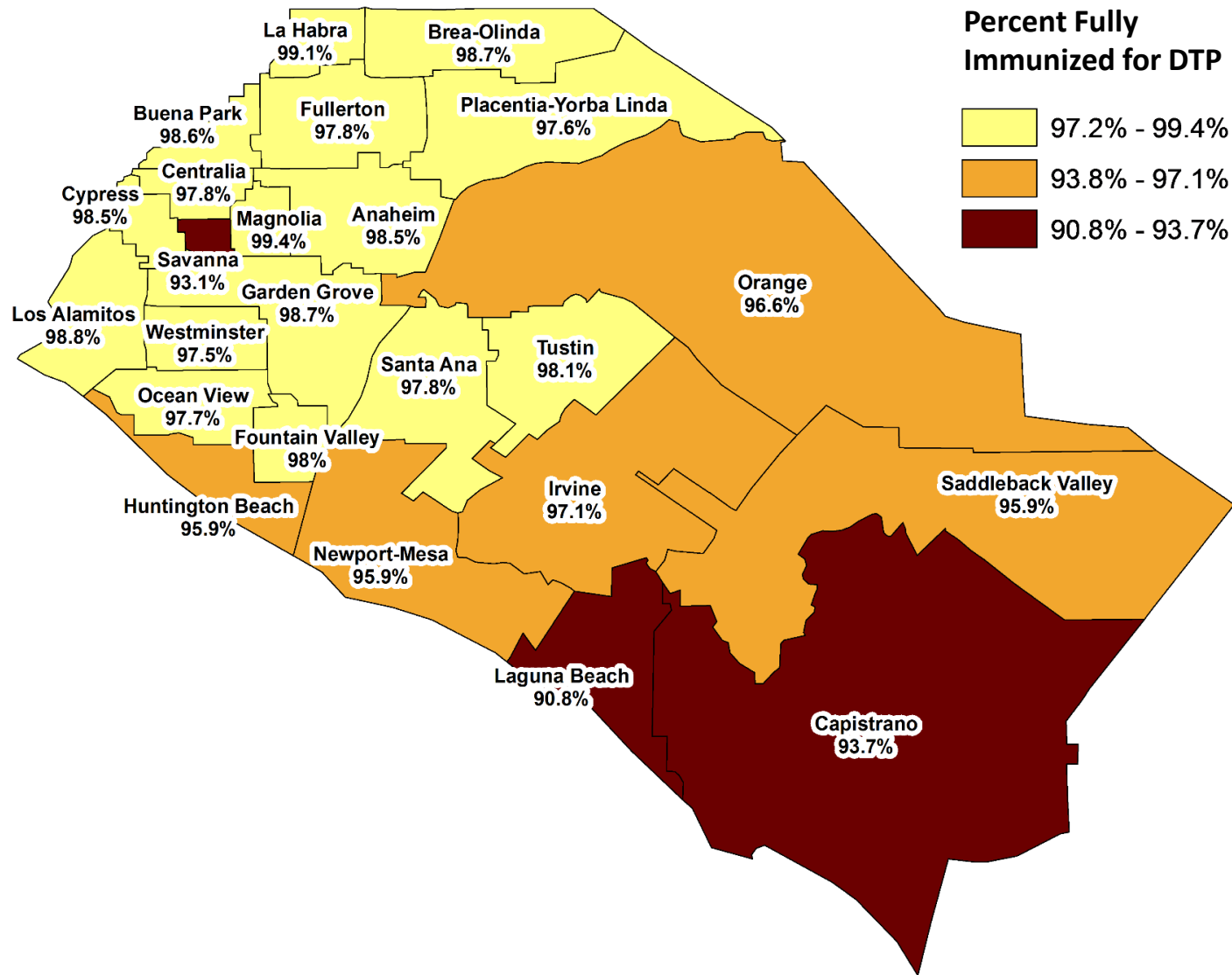
# Up-to-Date Immunizations at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18.



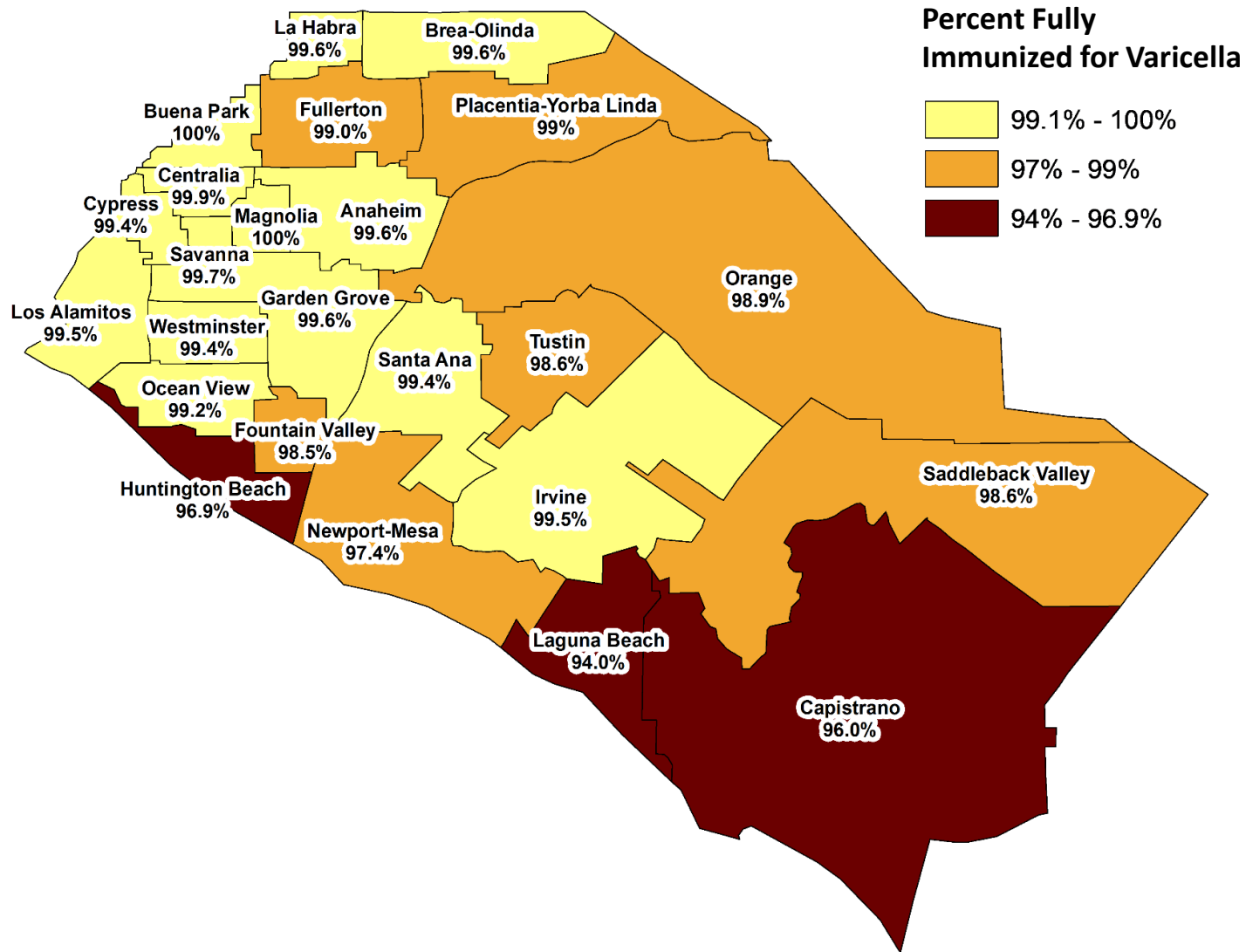
# MMR Immunization at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18.



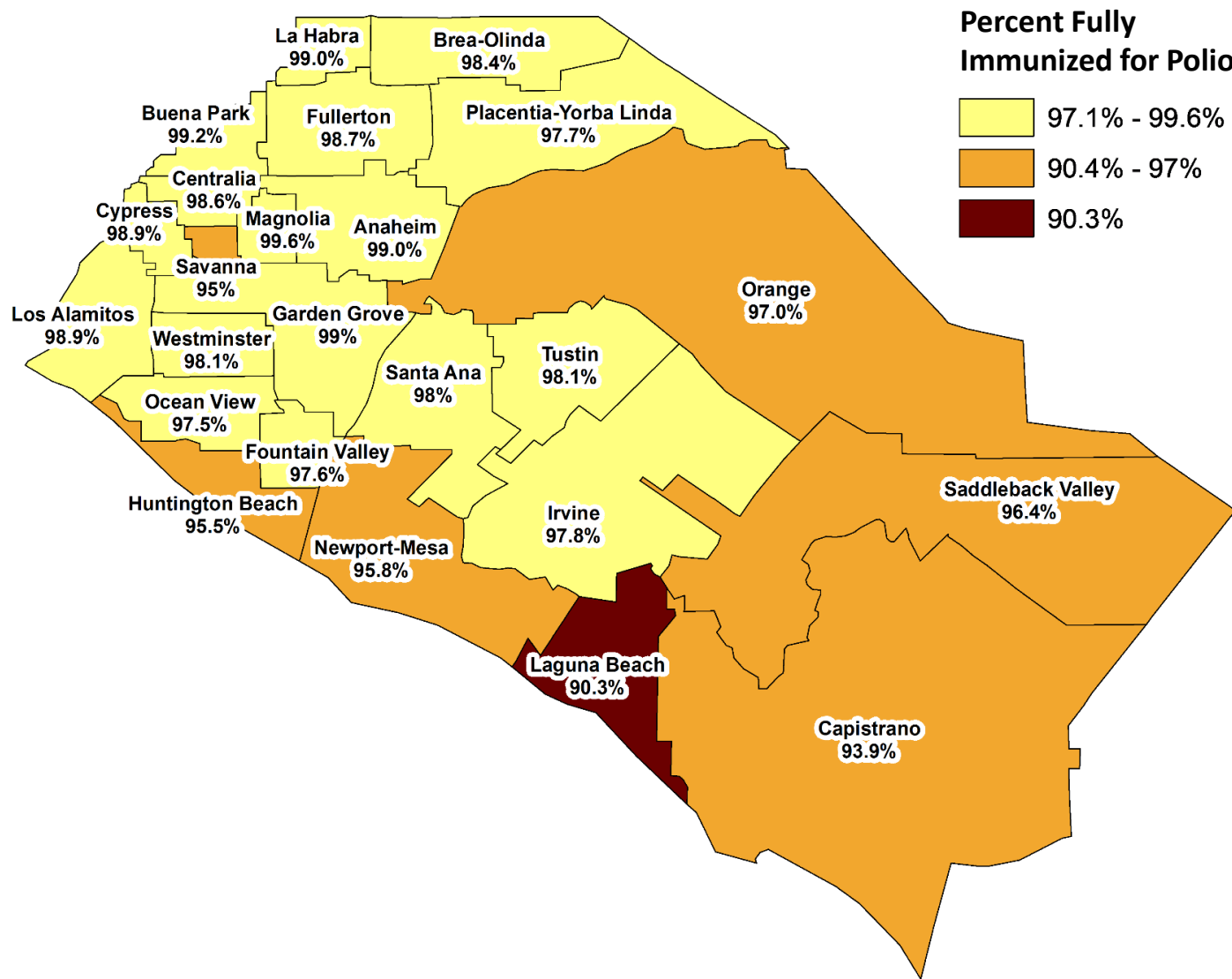
# DTP Immunization at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18.



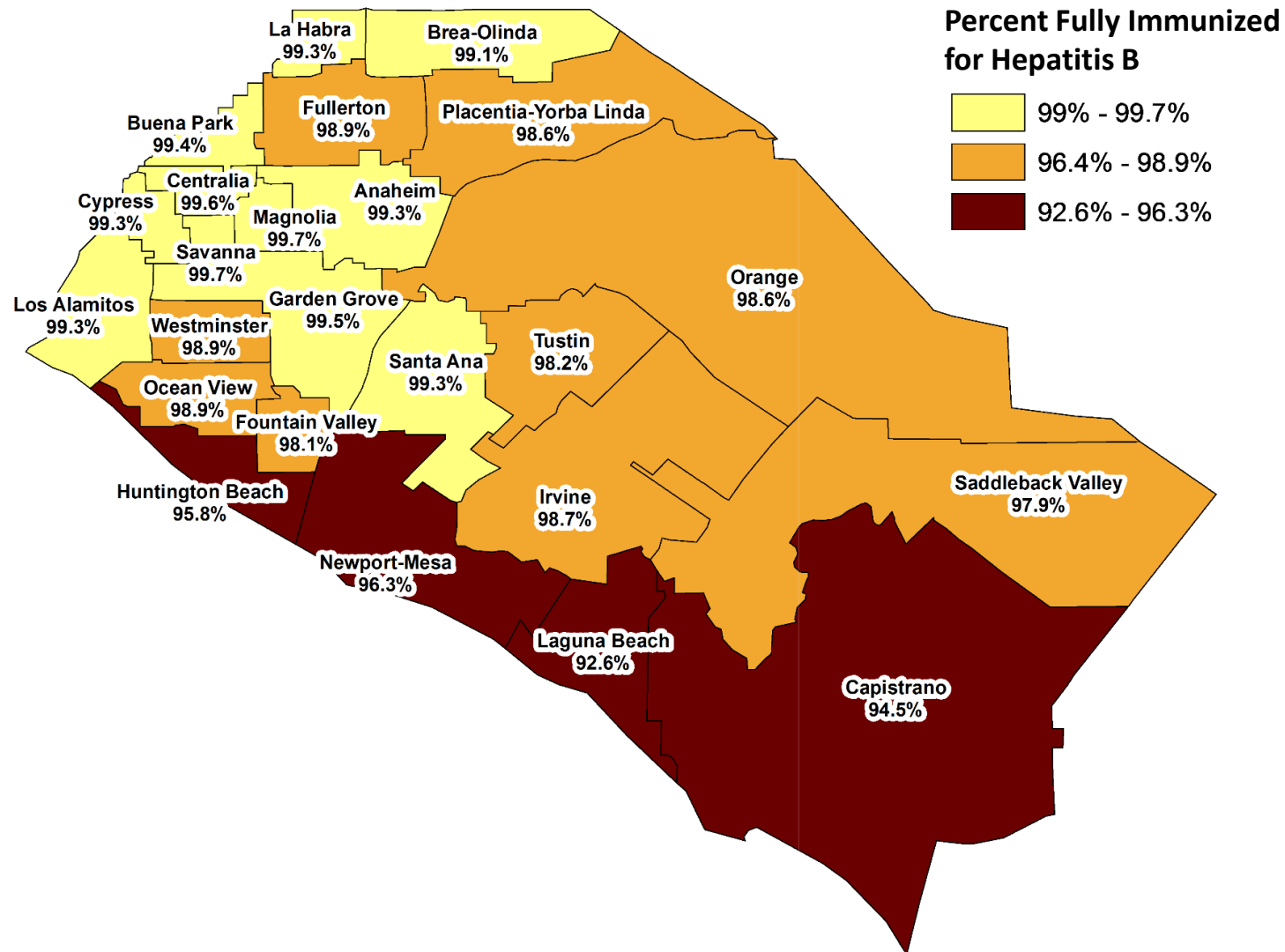
# Varicella Immunization at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18.



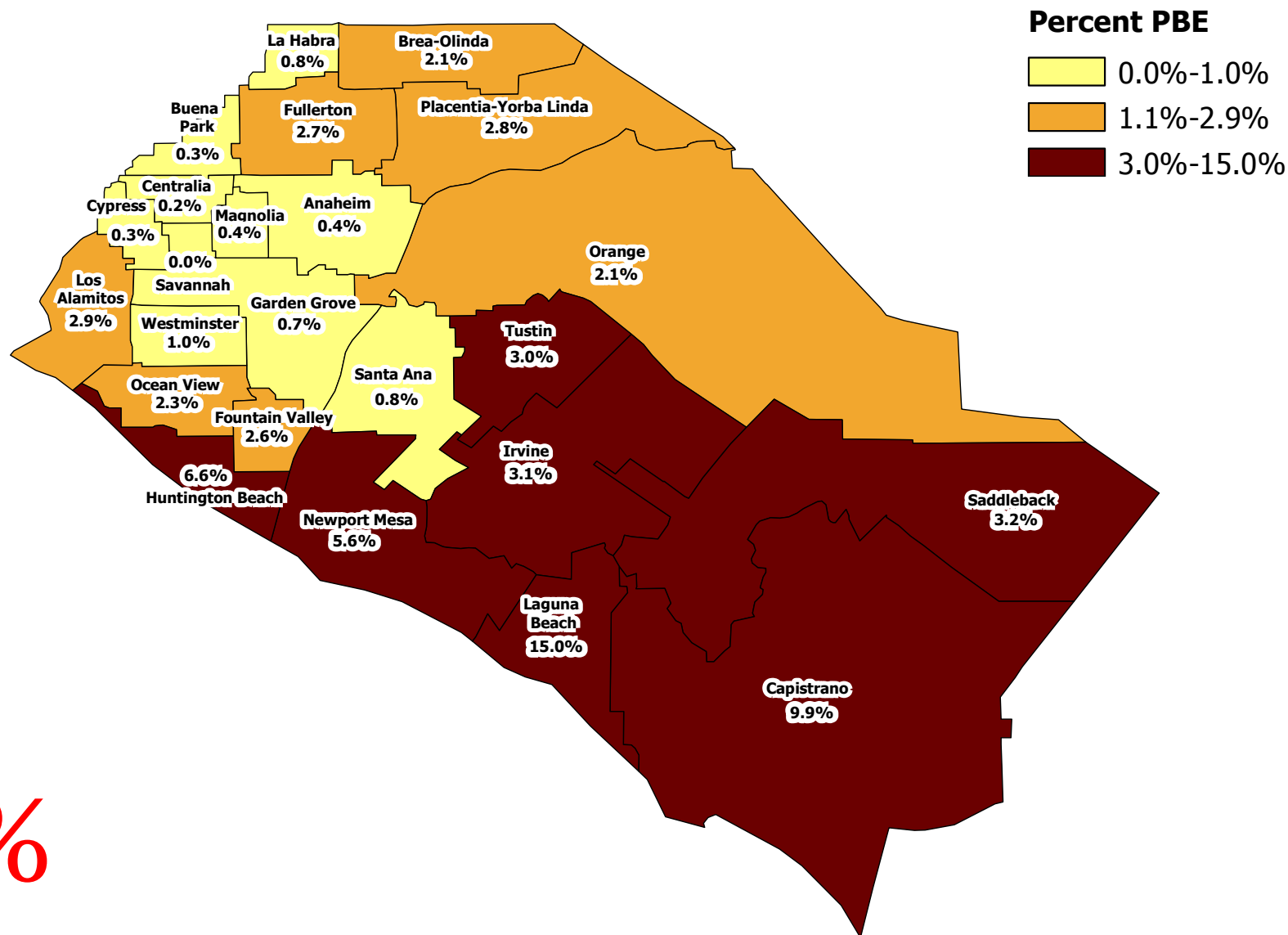
# Polio Immunization at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18.



# Hepatitis B Immunization at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18.

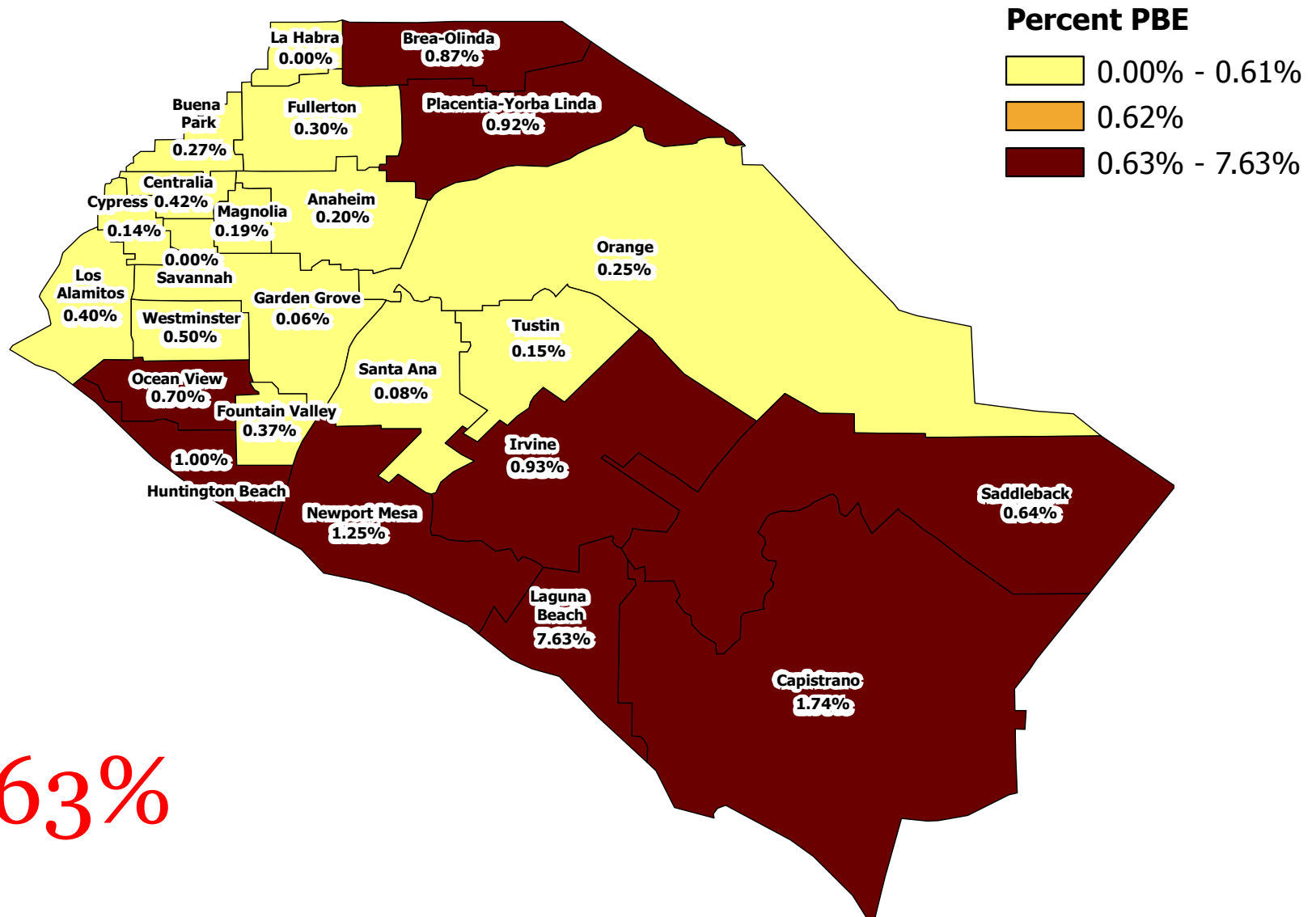


# Personal Belief Exemption (PBE) at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2015-16



3%

# Personal Belief Exemption (PBE) at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2016-17

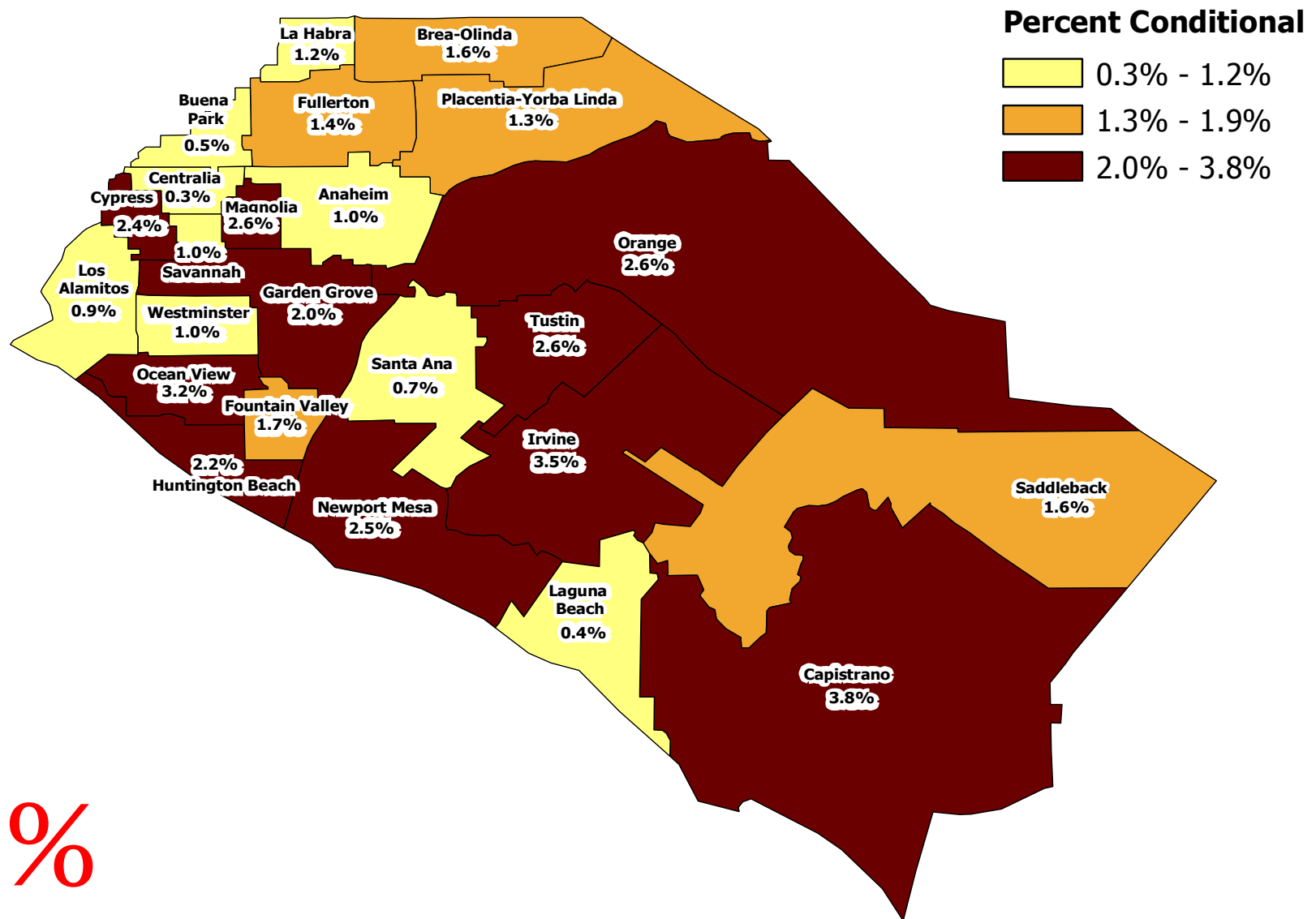


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# Personal Belief Exemption (PBE) at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18

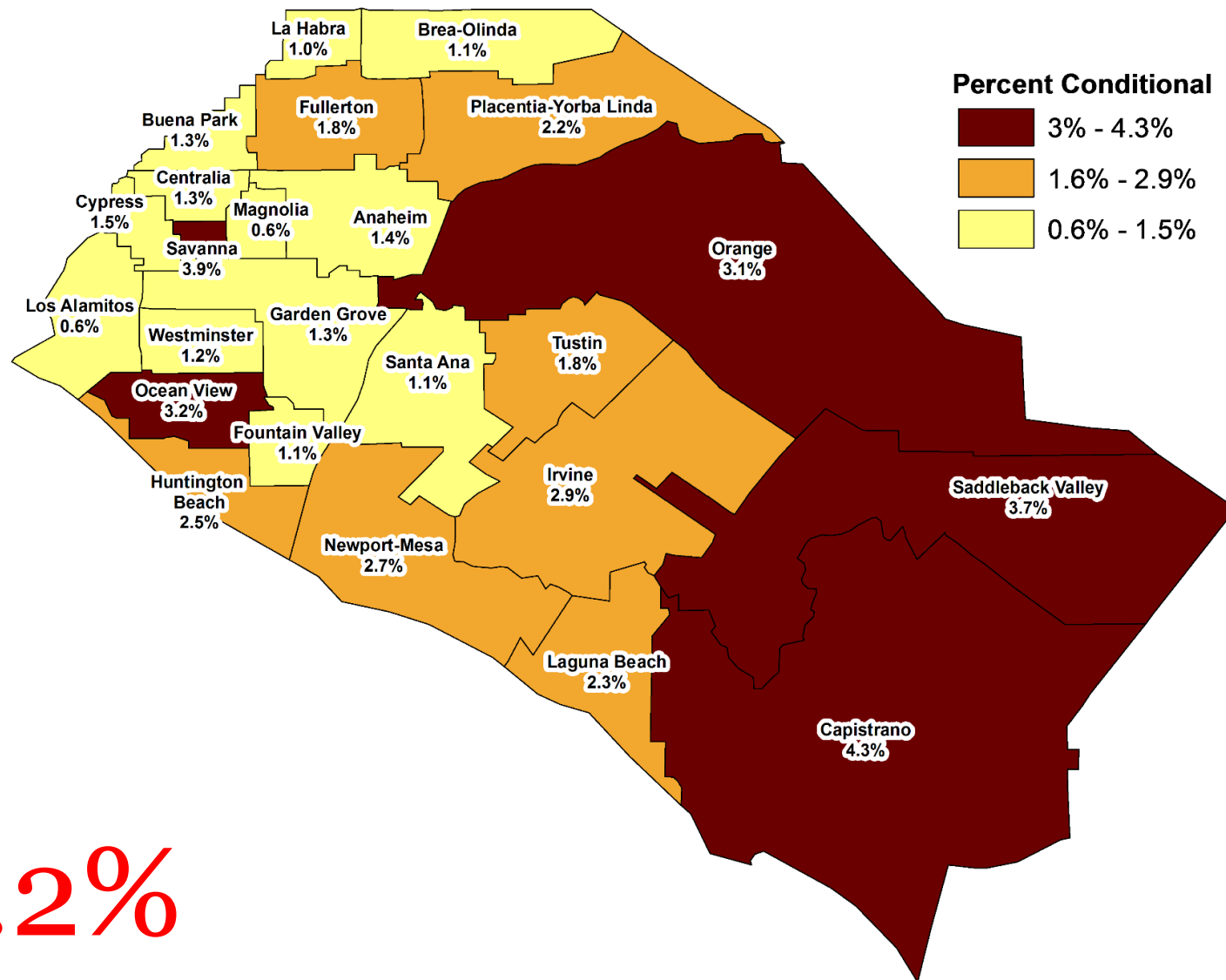
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# Conditional Enrollment at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2016-17



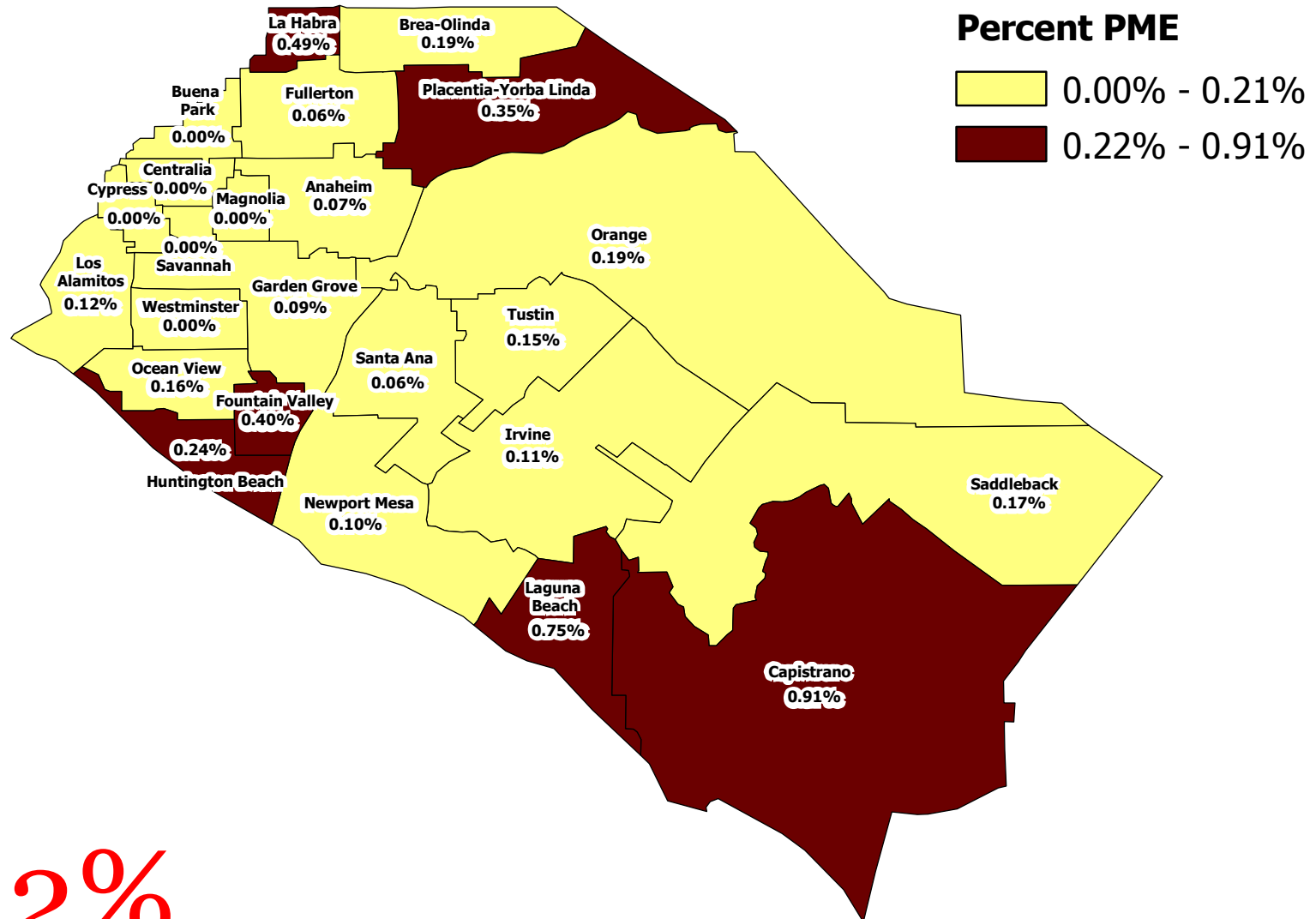
2%

# Conditional Enrollment at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18



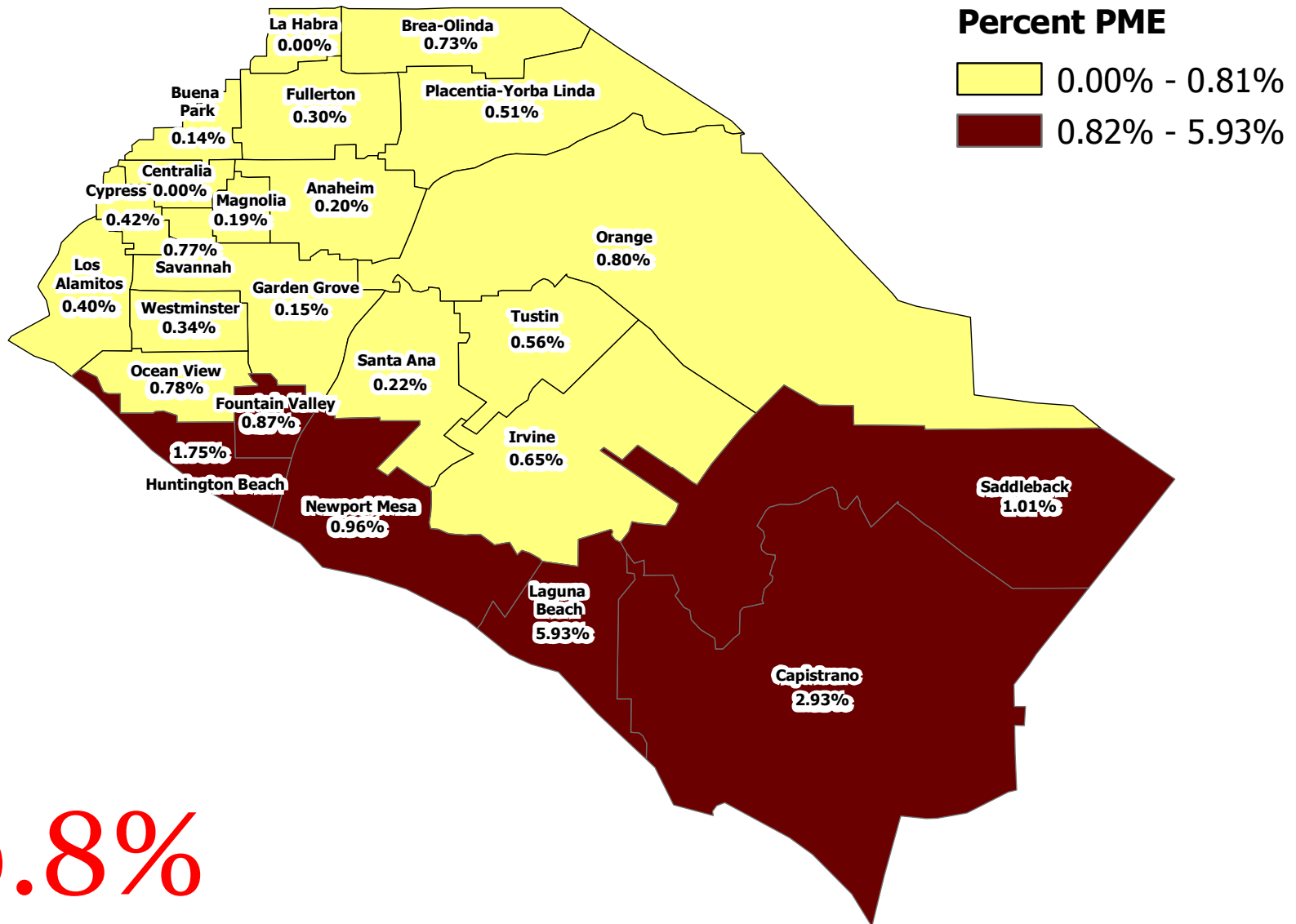
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# Permanent Medical Exemption (PME) at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2015-16

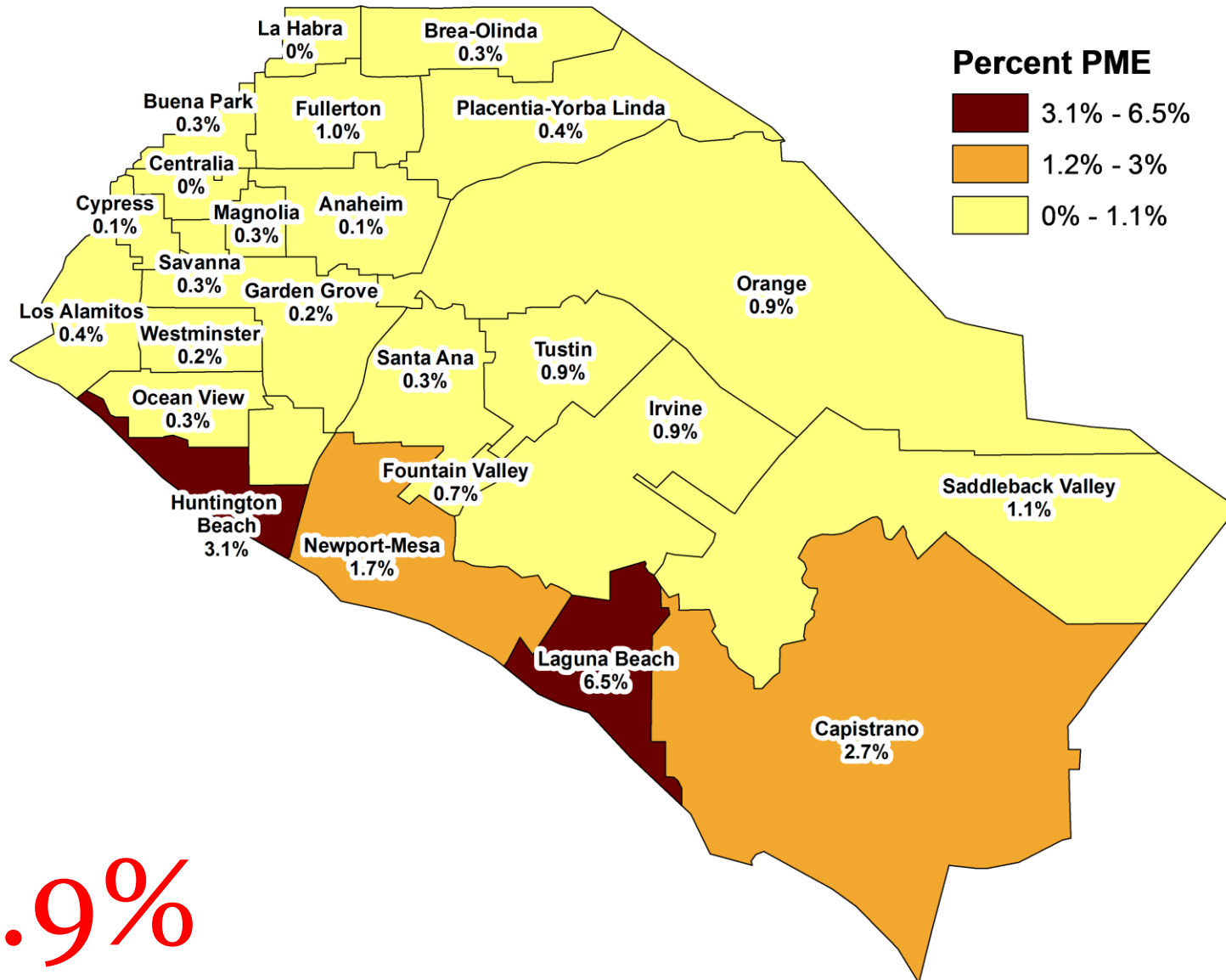


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# Permanent Medical Exemption (PME) at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2016-17



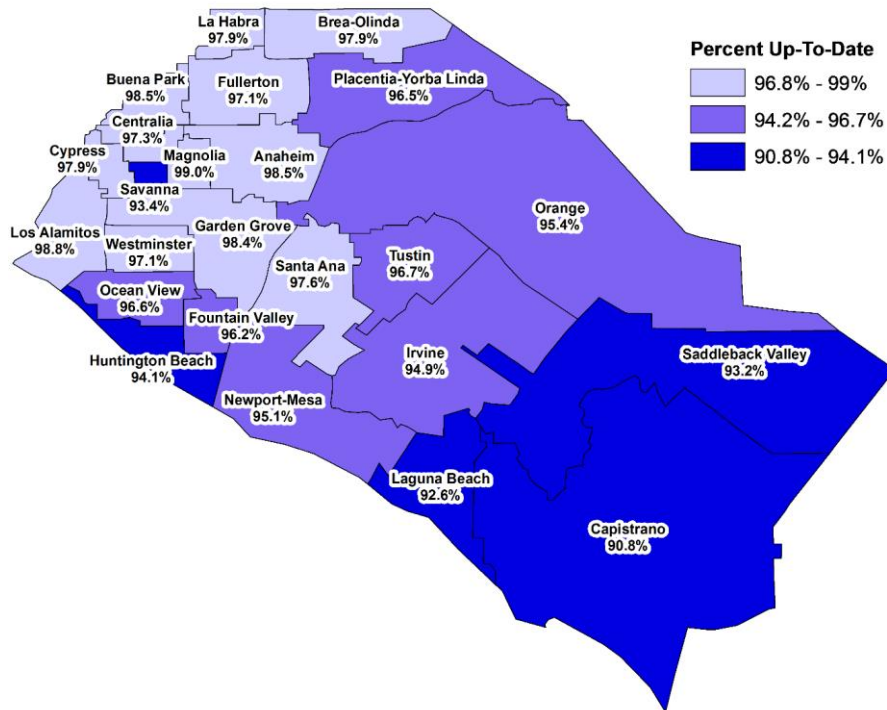
# Permanent Medical Exemption (PME) at Kindergarten Enrollment, Private and Public Schools Within Each School District, 2017-18



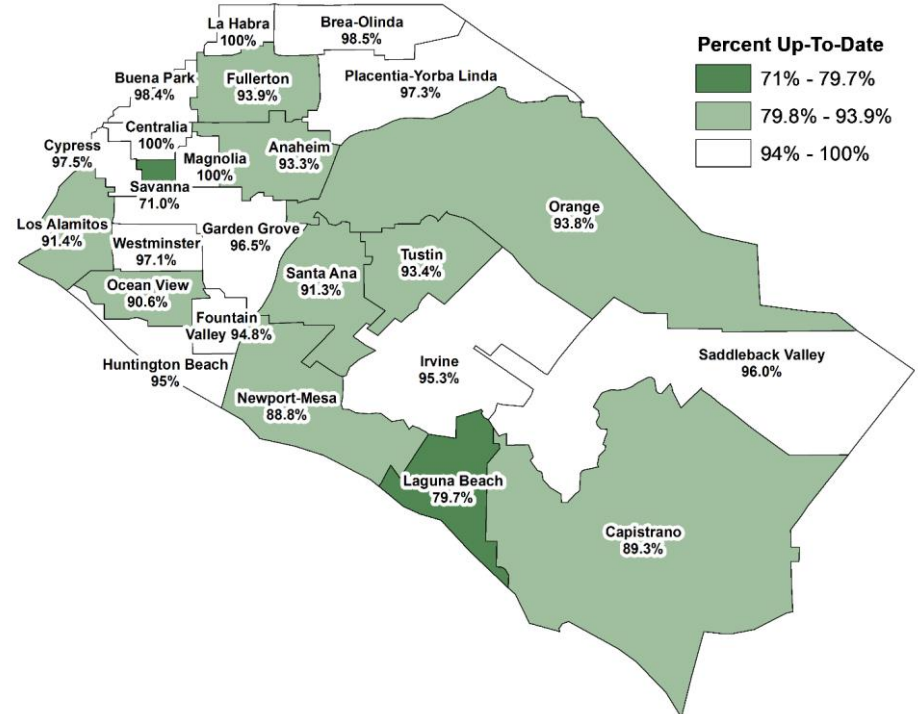
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# Up-to-Date Immunizations at Kindergarten Enrollment, Private vs. Public Schools Within Each School District, 2017-18.

Public Schools

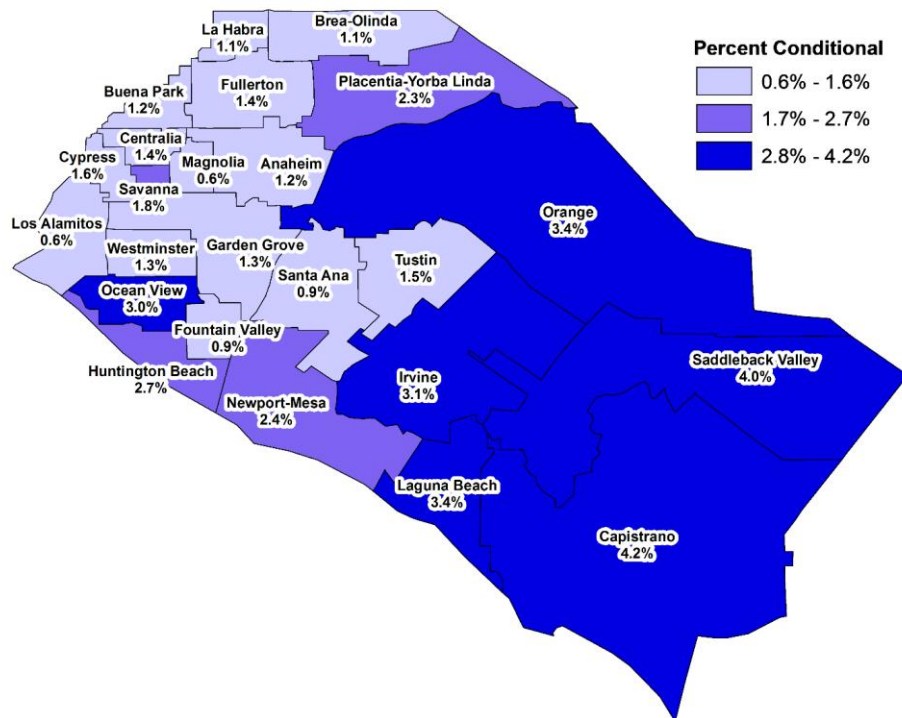


Private Schools

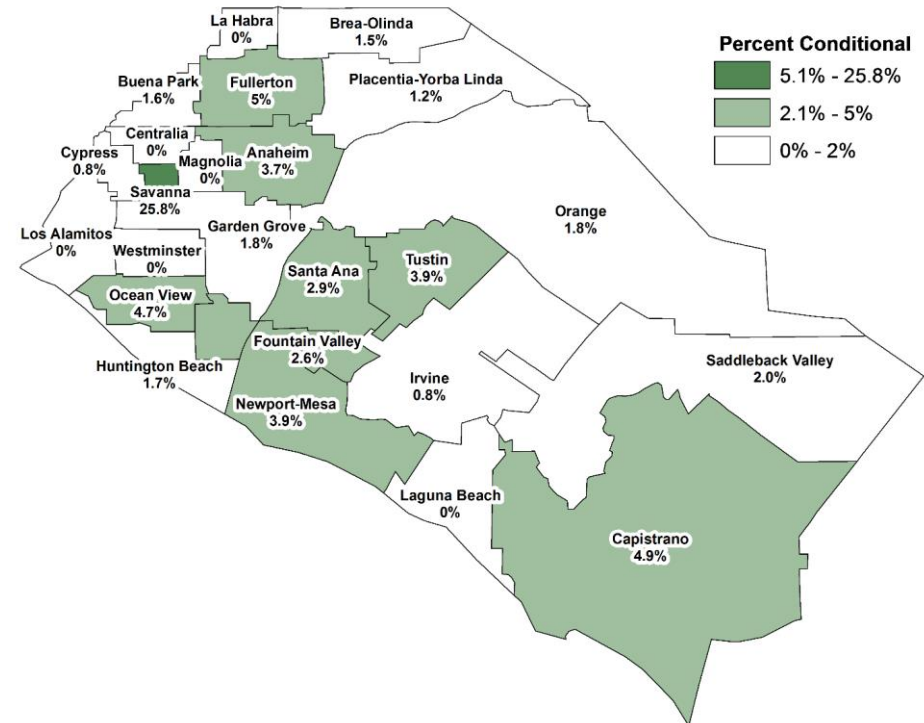


# Conditional Enrollment at Kindergarten Enrollment, Private vs. Public Schools Within Each School District, 2017-18

Public Schools

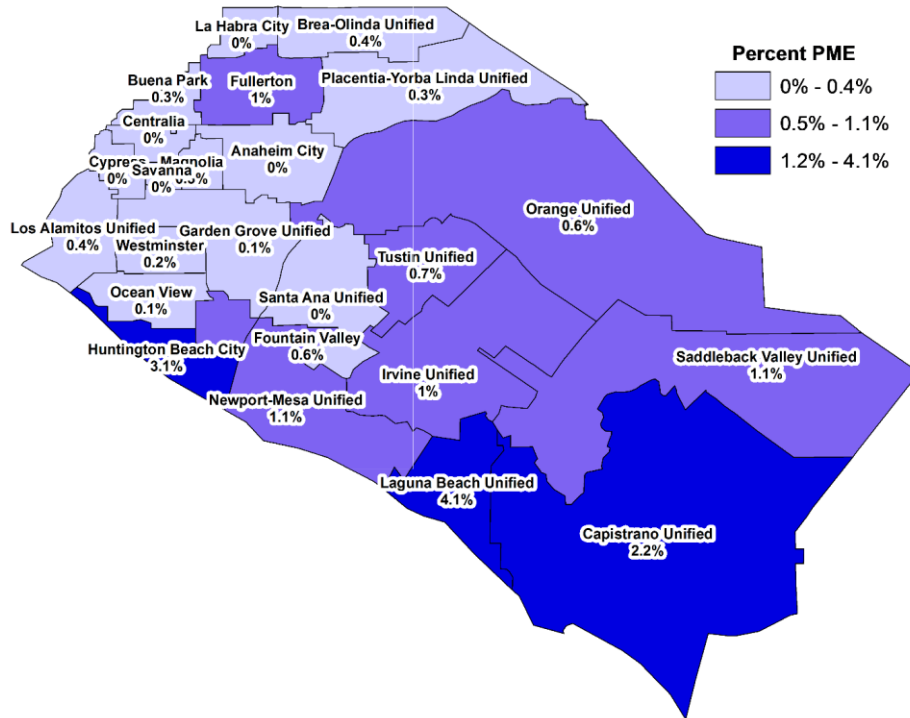


Private Schools

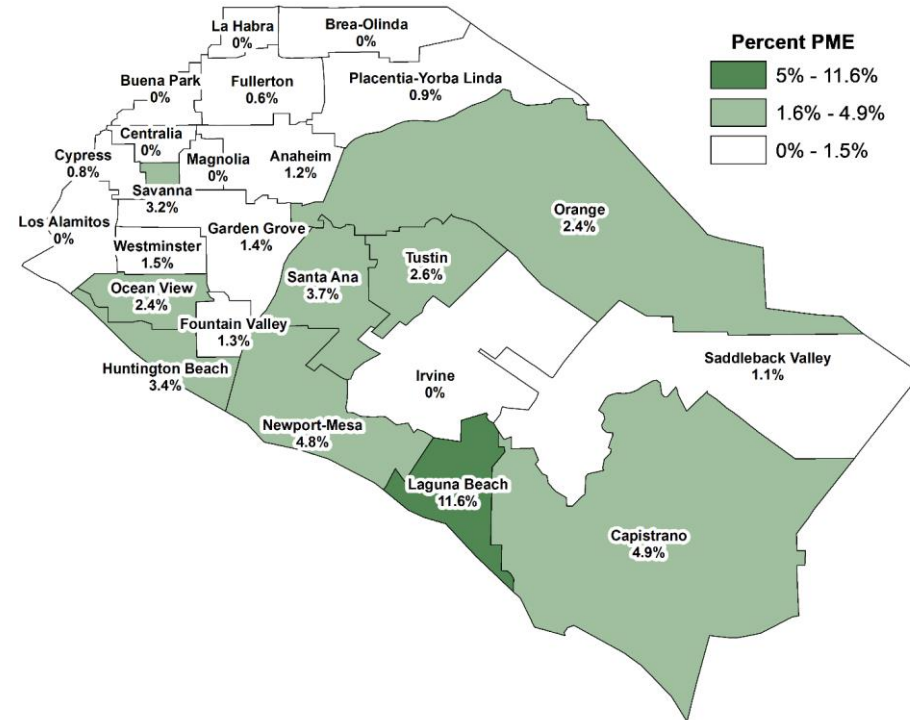


# Permanent Medical Exemption (PME) at Kindergarten Enrollment, Private vs. Public Schools Within Each School District, 2017-18

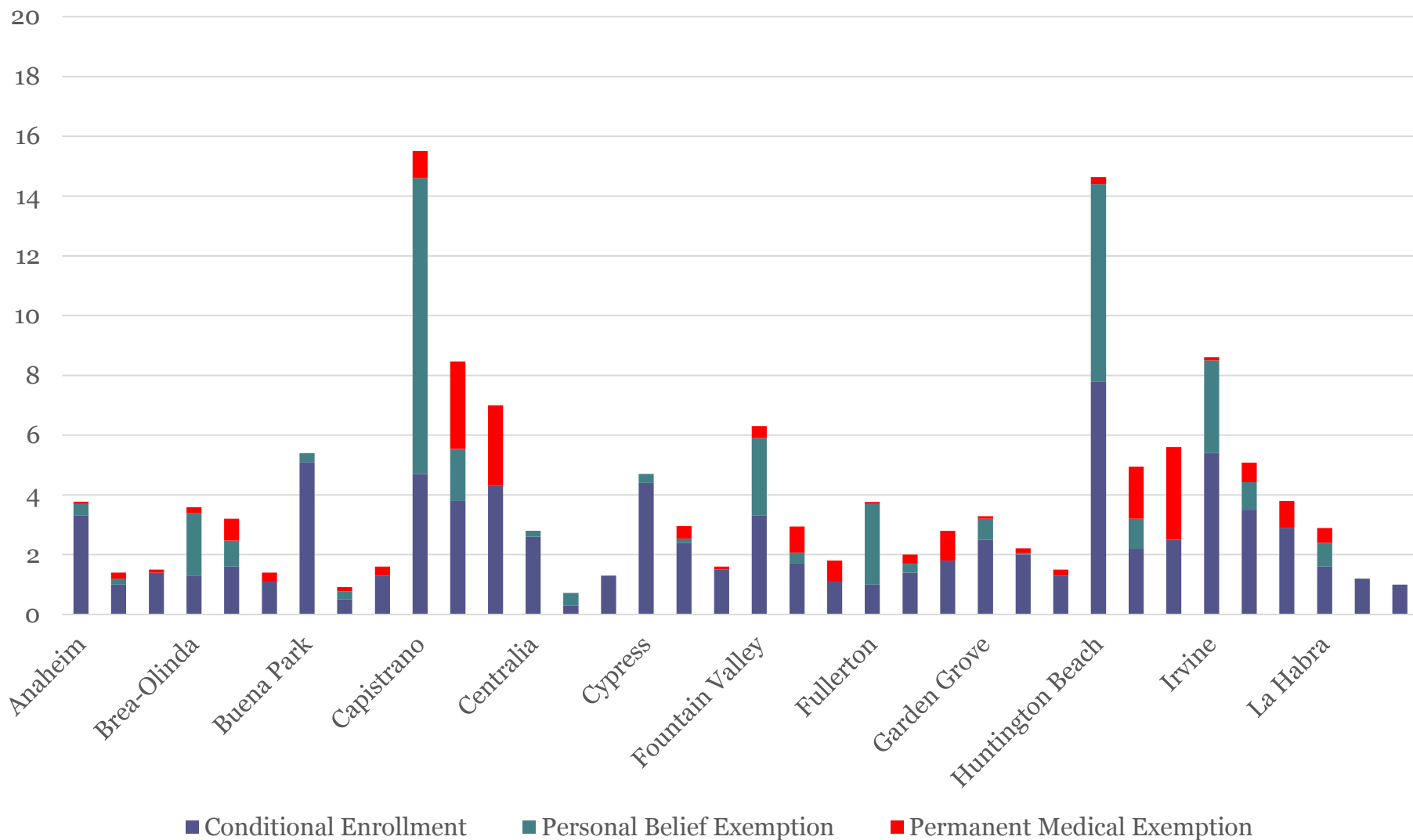
## Public Schools



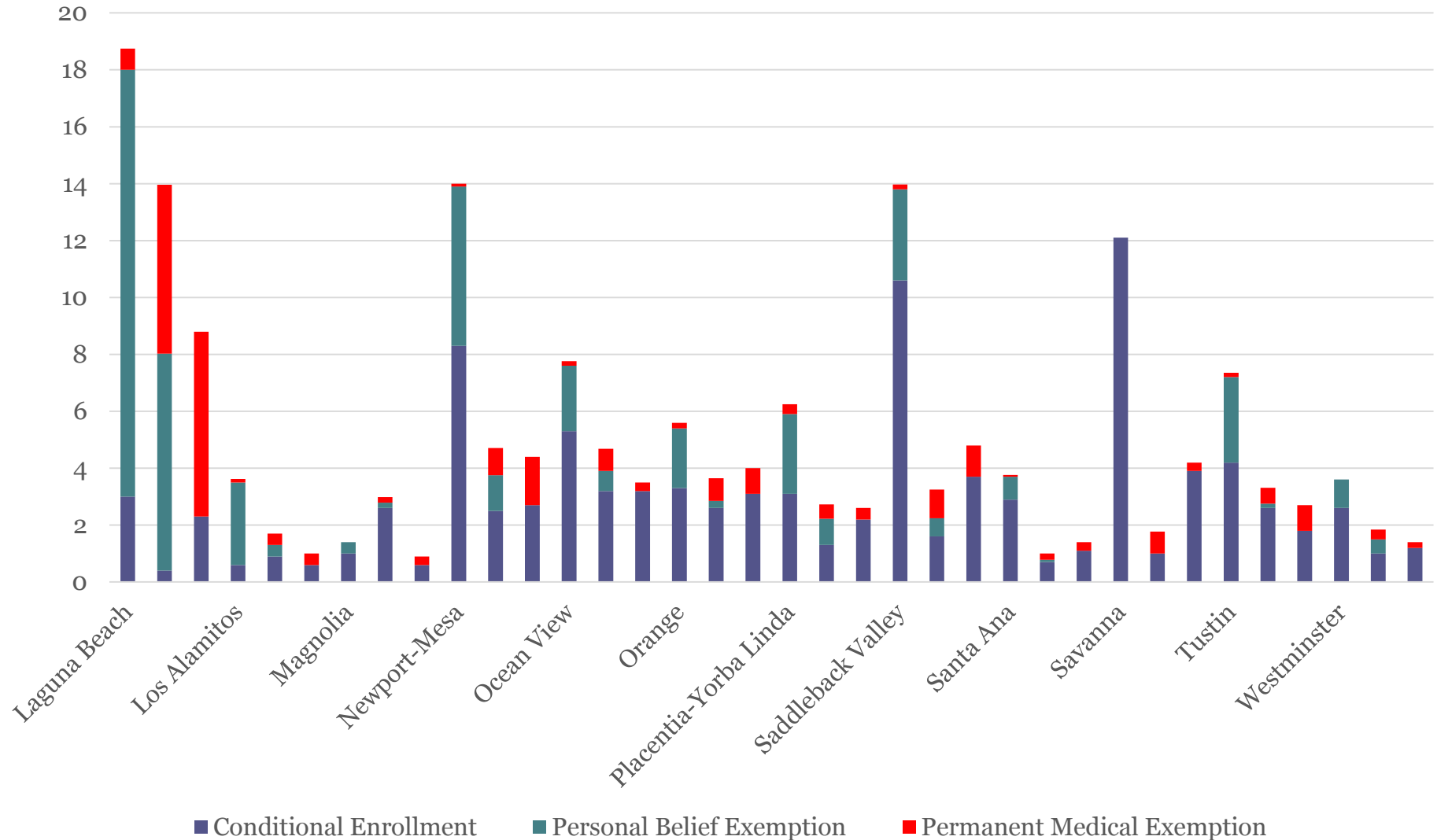
## Private Schools



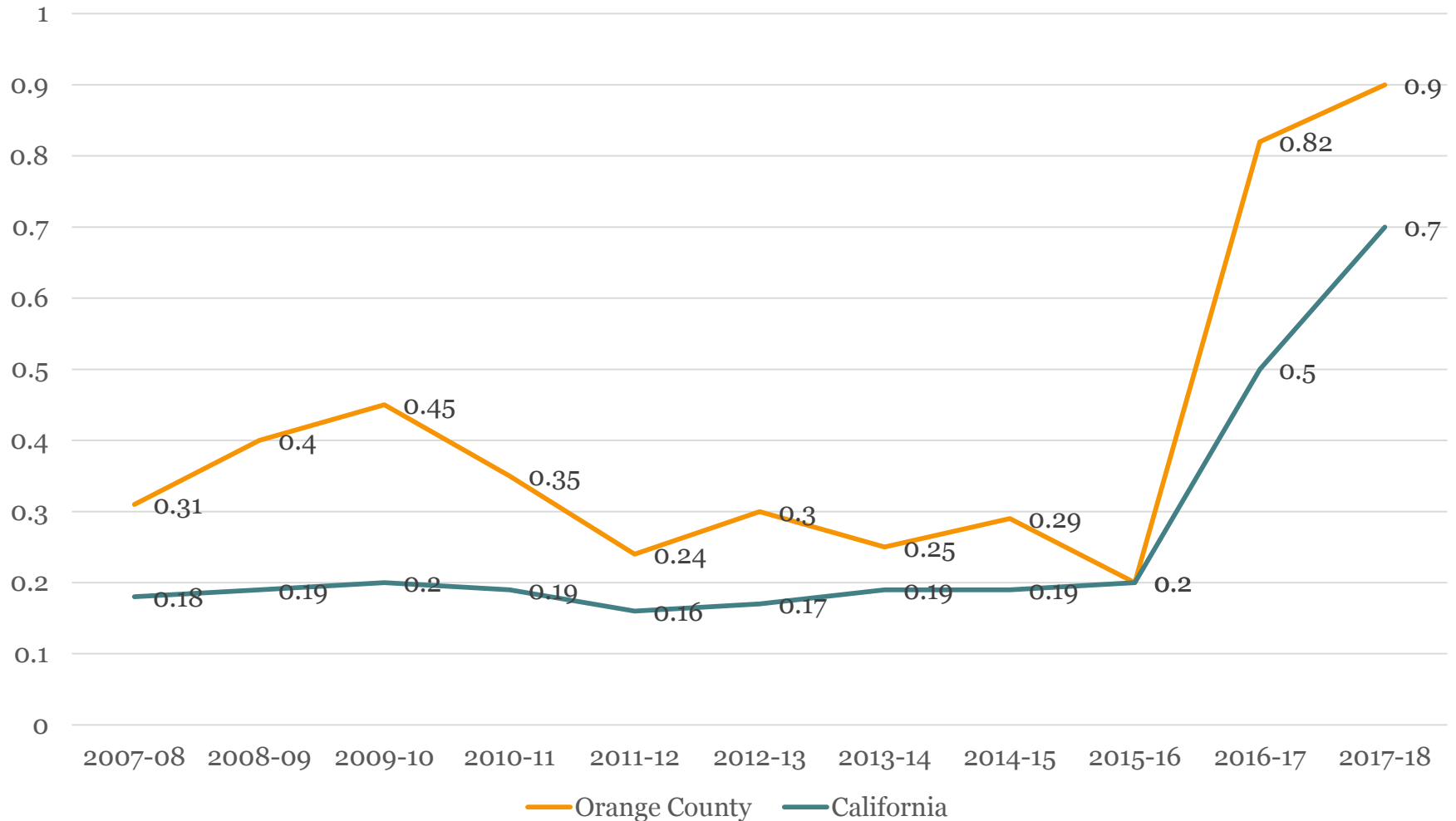
# 2015-16 vs. 2016-17 vs. 2017-18: KG Conditional Enrollment, Personal Belief Exemption, & Permanent Medical Exemption Percentages by School District



# 2015-16 vs. 2016-17 vs. 2017-18: KG Conditional Enrollment, Personal Belief Exemption, & Permanent Medical Exemption Percentages by School District



# PME Percentage Trends: Orange County and California



# Contraindications and Precautions to Vaccination

- **General Best Practice Guidelines – ACIP/CDC**
  - Contraindications and precautions to commonly used vaccines
  - Conditions incorrectly perceived as contraindications to vaccination
  - <https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html>

# Study highlights flaws in CA vaccine exemption law

## Experiences With Medical Exemptions After a Change in Vaccine Exemption Policy in California

Salini Mohanty, DrPH, MPH,<sup>a</sup> Alison M. Buttenheim, PhD, MBA,<sup>a,b</sup> Caroline M. Joyce, BA,<sup>a</sup> Amanda C. Howa, MPH,<sup>c</sup> Daniel Salmon, PhD, MPH,<sup>d</sup> Saad B. Omer, MBBS, MPH, PhD<sup>c,e,f,g</sup>

**OBJECTIVES:** In 2015, California passed Senate Bill 227 (SB277), eliminating nonmedical vaccine exemptions for school entry. Our objective for this study was to describe the experiences of health officers and immunization staff addressing medical exemption requests under SB277.

**METHODS:** We conducted semistructured telephone interviews between August 2017 and September 2017 with health officers and immunization staff from local health jurisdictions in California. Interviews were recorded, transcribed, and analyzed for key themes.

**RESULTS:** We conducted 34 interviews with 40 health officers and immunization staff representing 35 of the 61 local health jurisdictions in California. Four main themes emerged related to experiences with medical exemptions: (1) the role of stakeholders, (2) reviewing medical exemptions received by schools, (3) medical exemptions that were perceived as problematic, and (4) frustration and concern over medical exemptions. Generally, local health jurisdictions described a narrow role in providing support and technical assistance to schools. Only 5 jurisdictions actively tracked medical exemptions received by schools, with 1 jurisdiction facing a lawsuit as a result. Examples were provided of medical exemptions that listed family history of allergies and autoimmune diseases as contraindications for immunization and of physicians charging steep fees for medical exemptions. Participants also reported concerns about the increase in medical exemptions after the implementation of SB277.

**CONCLUSIONS:** Participants reported many challenges and concerns with medical exemptions under SB277. Without additional legal changes, including a standardized review of medical exemptions, some physicians may continue to write medical exemptions for vaccine-hesitant parents, potentially limiting the long-term impact of SB277.

### abstract

“California Medical Board has received 60 complaints regarding medical exemptions since SB277. A majority of cases have been closed.”

“Pediatricians can partner with public health advocates and proscience parents to pass laws that empower public health officers to protect our children and community.” –Senator Pan



**Thank you!**  
**Questions?**

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