

Physical / Social Factors Of Urbanization In Mosquito- borne Disease Transmission

Climate, Migration & Health in Latin America: Connections through
Urbanization

University of Colorado Population Center

Boulder, Colorado, USA

May 26-27, 2016

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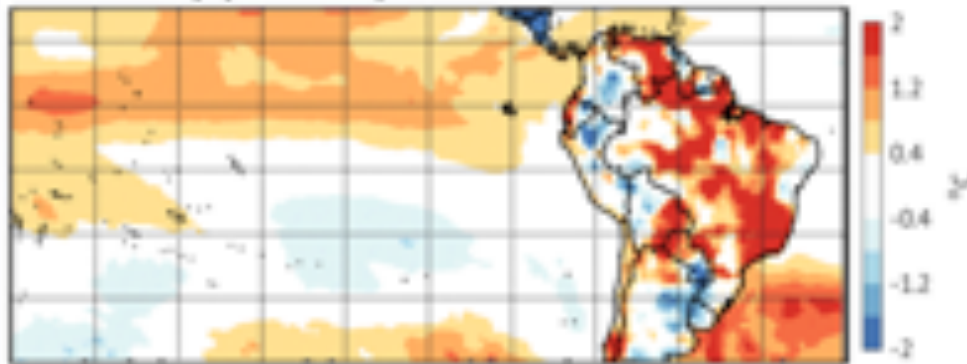


MARCOS TEIXEIRA DE FREITAS

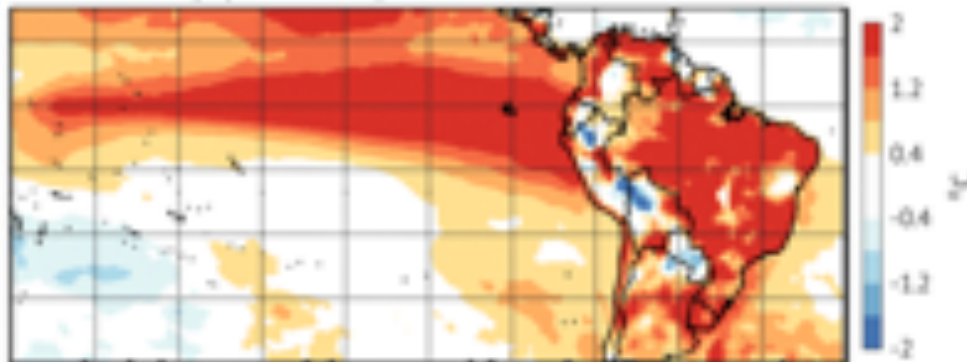
**predicted distribution
of *Aedes aegypti* in
2015**

KRAEMER, MORITZ UG, ET AL. "THE GLOBAL DISTRIBUTION OF THE ARBOVIRUS
VECTORS *Aedes aegypti* AND *Ae. albopictus*." *ELIFE* 4 (2015): e08347.

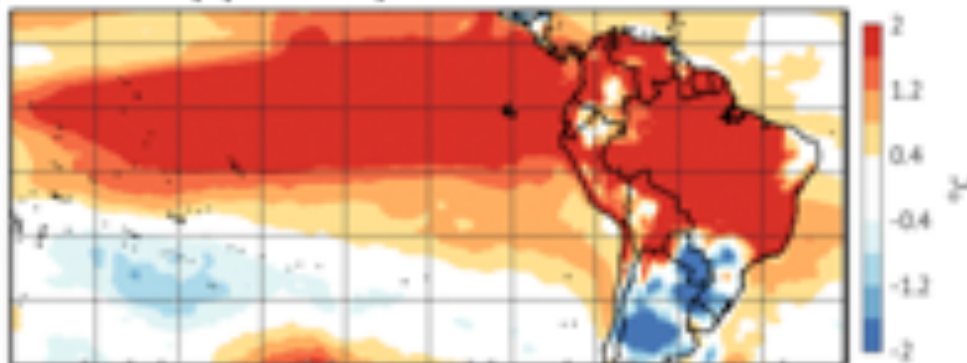
Surface Temp (2m TMAX): OCT 2014 - MAR 2015



Surface Temp (2m TMAX): APR 2015 - SEP 2015



Surface Temp (2m TMAX): OCT 2015 - FEB 2016



**El Niño of 2015
may be the
strongest in the
recent historical
record.**

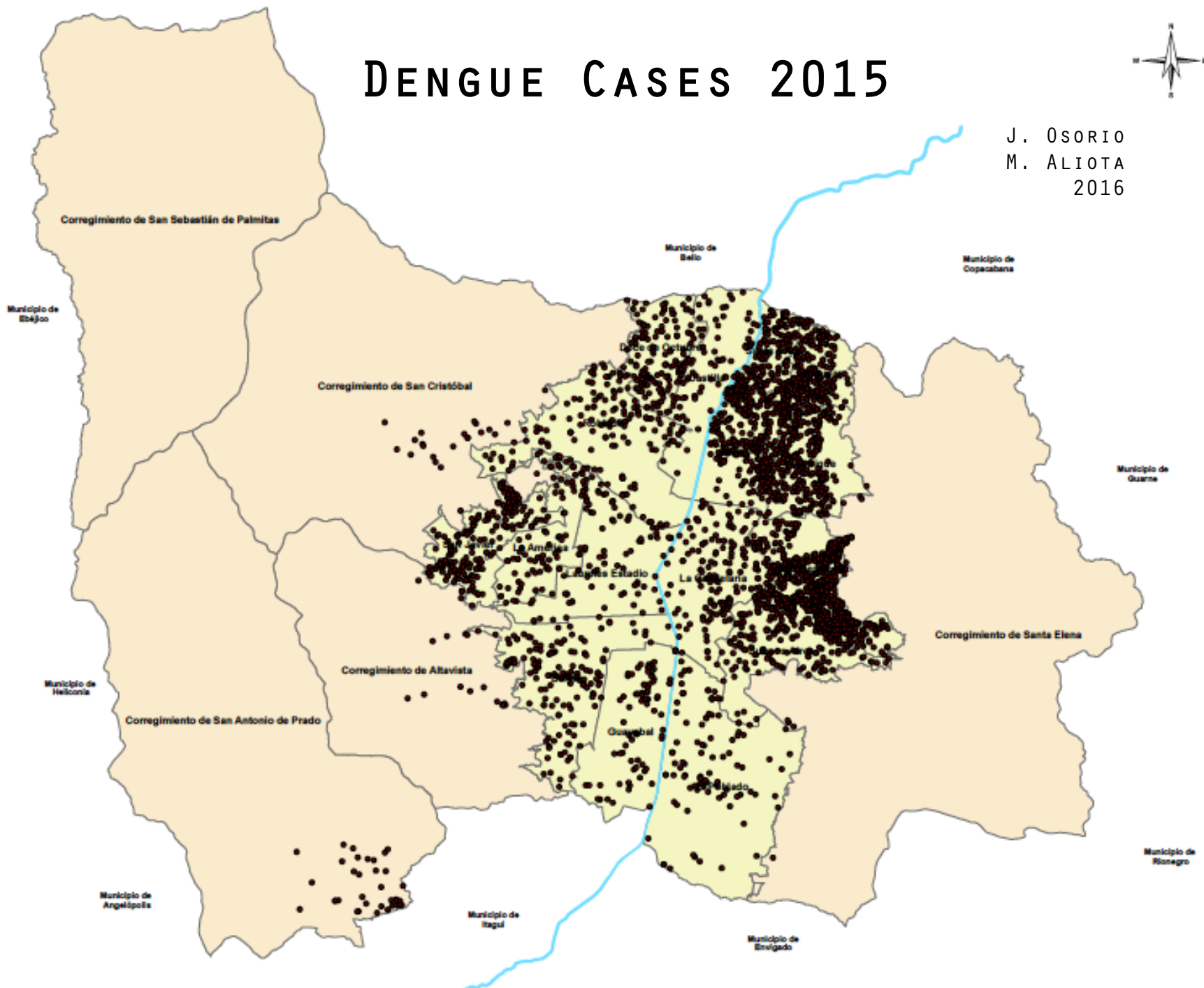


MATTHEW TWOMBLY FOR NPR

DENGUE CASES 2015



J. OSORIO
M. ALIOTA
2016



DENGUE CASES 2015

J. OSORIO
M. ALIOTA
2016

The map displays the distribution of dengue cases in Medellín for the year 2015. The city is divided into several administrative regions, with the Corregimiento de San Cristóbal and Corregimiento de Santa Elena being the primary focus. Three specific areas are highlighted with red circles and numbered 1, 2, and 3. The map also shows surrounding municipalities and corregimientos, including Corregimiento de San Sebastián de Palmitas, Municipio de Bello, Municipio de Copacabana, Municipio de Guane, Corregimiento de Santa Elena, Municipio de Rionegro, Municipio de Envigado, Municipio de Itagüí, Municipio de Angelópolis, Municipio de Heliconia, and Municipio de Bájico. The map includes a north arrow in the top right corner.

1

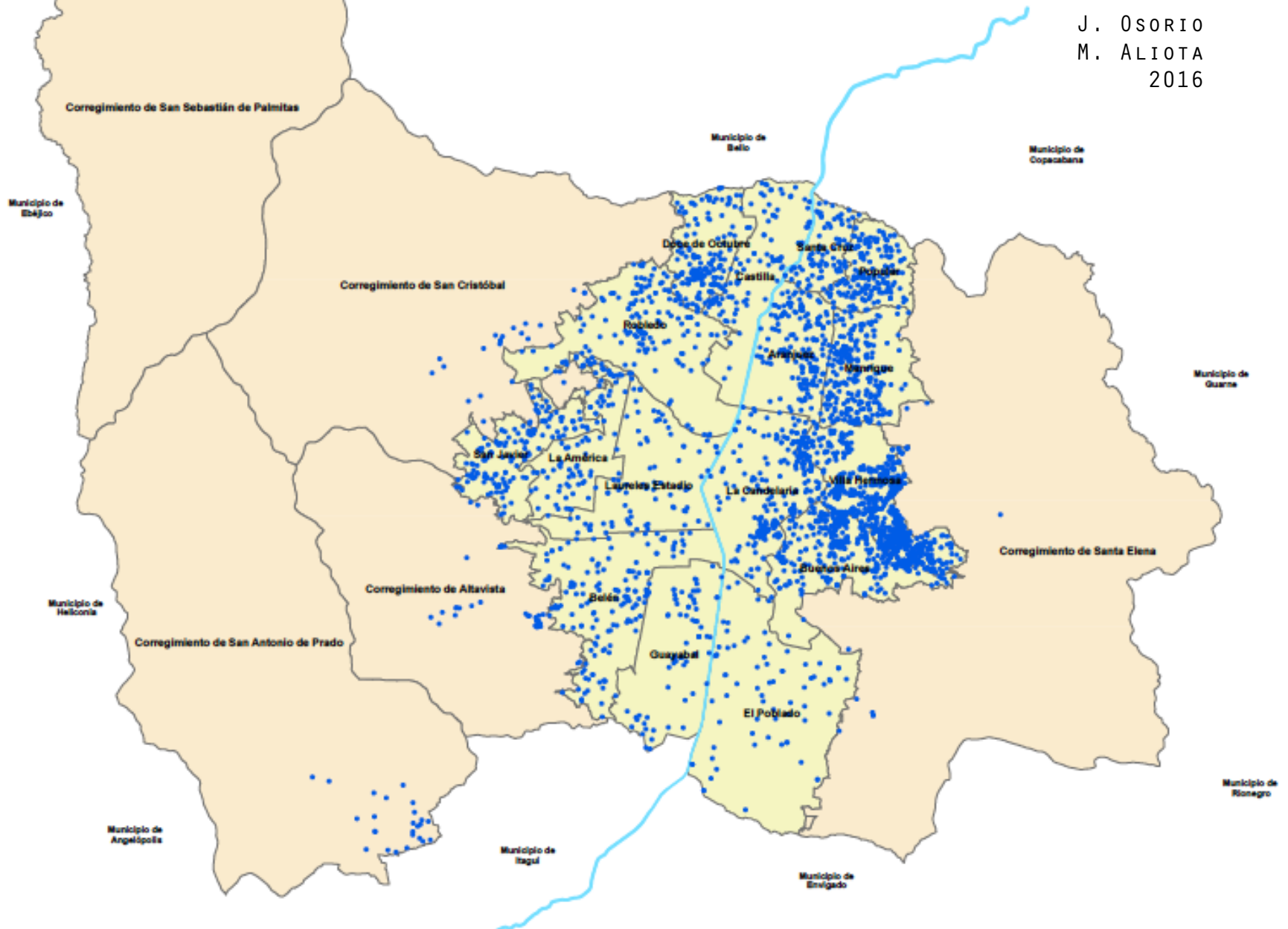
2

3

DENGUE CASES 2016



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DENGUE CASES 2016

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2016

The map illustrates the distribution of dengue cases across Medellín and its surrounding areas in 2016. The city is divided into districts, and the surrounding municipalities are also labeled. The density of blue dots indicates the concentration of cases, with the highest density in the central urban area. Three specific locations are highlighted with red circles and numbered 1, 2, and 3. A north arrow is located in the top right corner.

Corregimiento de San Sebastián de Palmitas

Municipio de Bello

Municipio de Copacabana

Corregimiento de San Cristóbal

Donde Octubre

Santa Cruz

Castilla

Robledo

Armenia

San Javier

La América

Laureles Este

Corregimiento de Altavista

Belén

Guayabal

El Poblado

Corregimiento de Santa Elena

Municipio de Guarne

Municipio de Heliconia

Corregimiento de San Antonio de Prado

Municipio de Angaité

Municipio de Itagüí

Municipio de Envigado

Municipio de Rionegro

ZIKA CASES

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2016

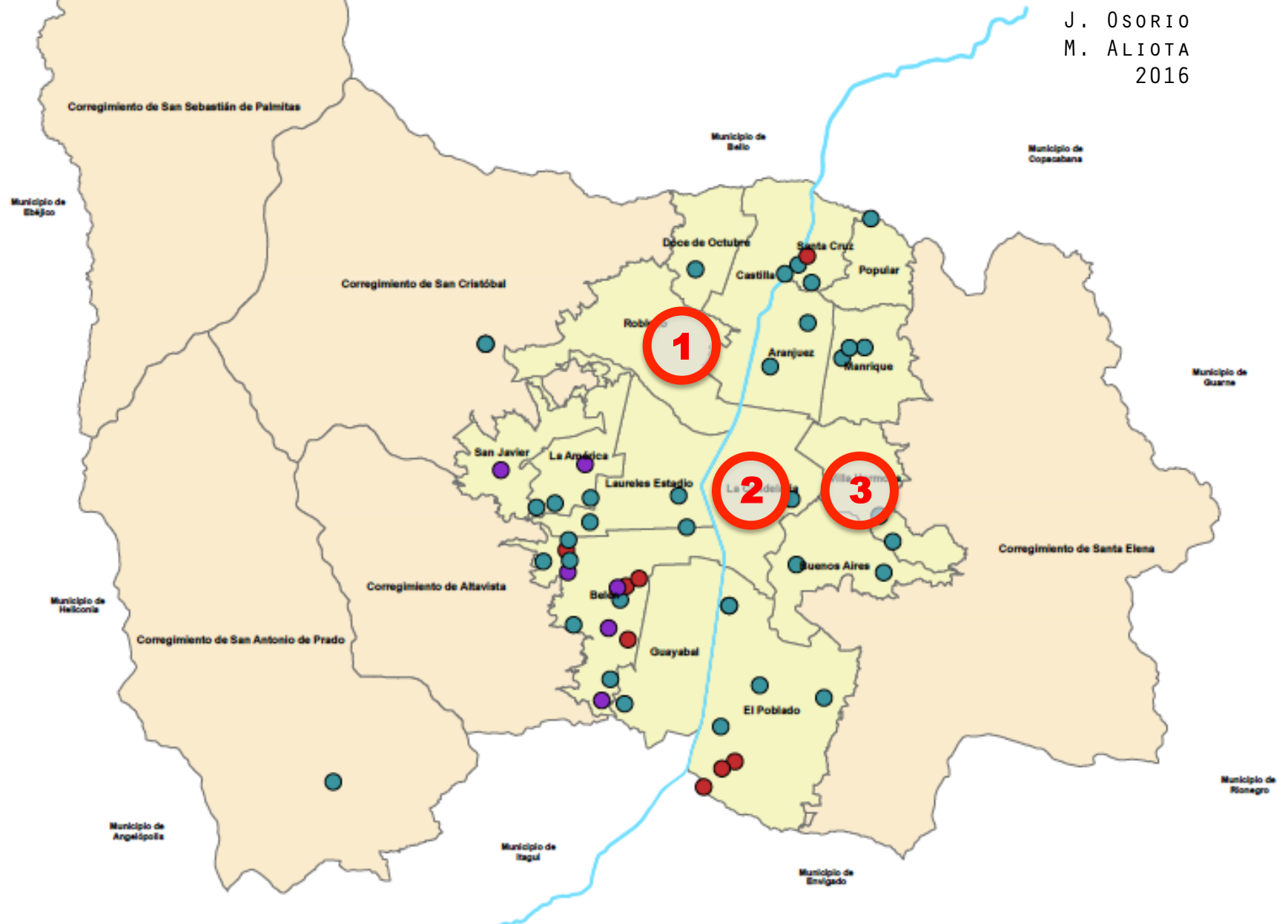
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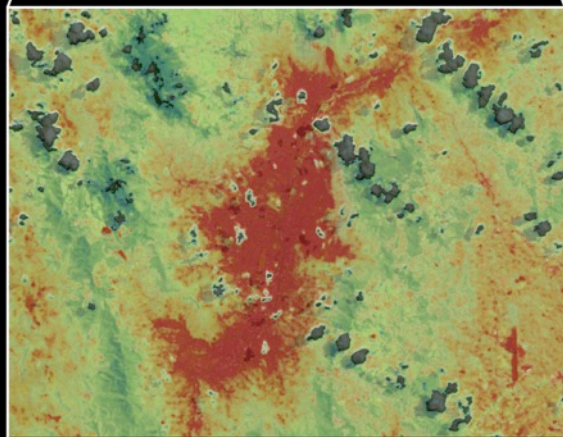
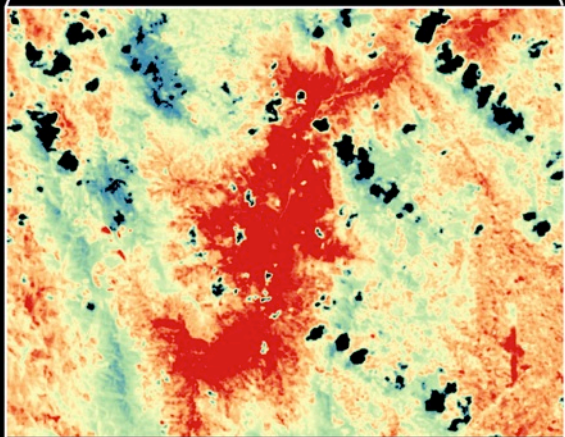
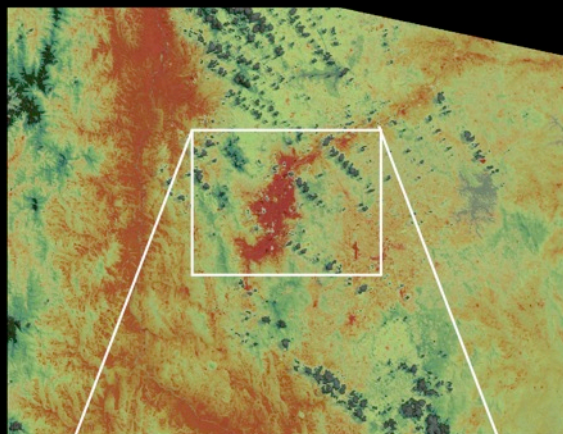
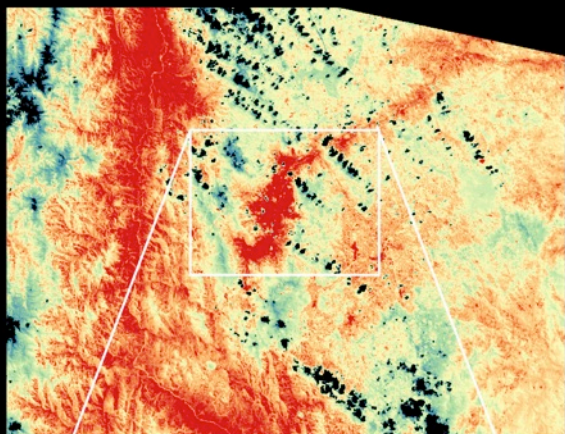
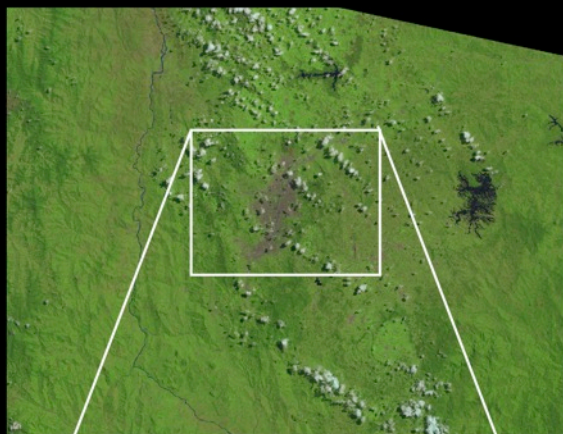
- 0-1
- 2-3
- 4-5
- 6-7
- 8-9
- 10-11

ZIKA CASES



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2016

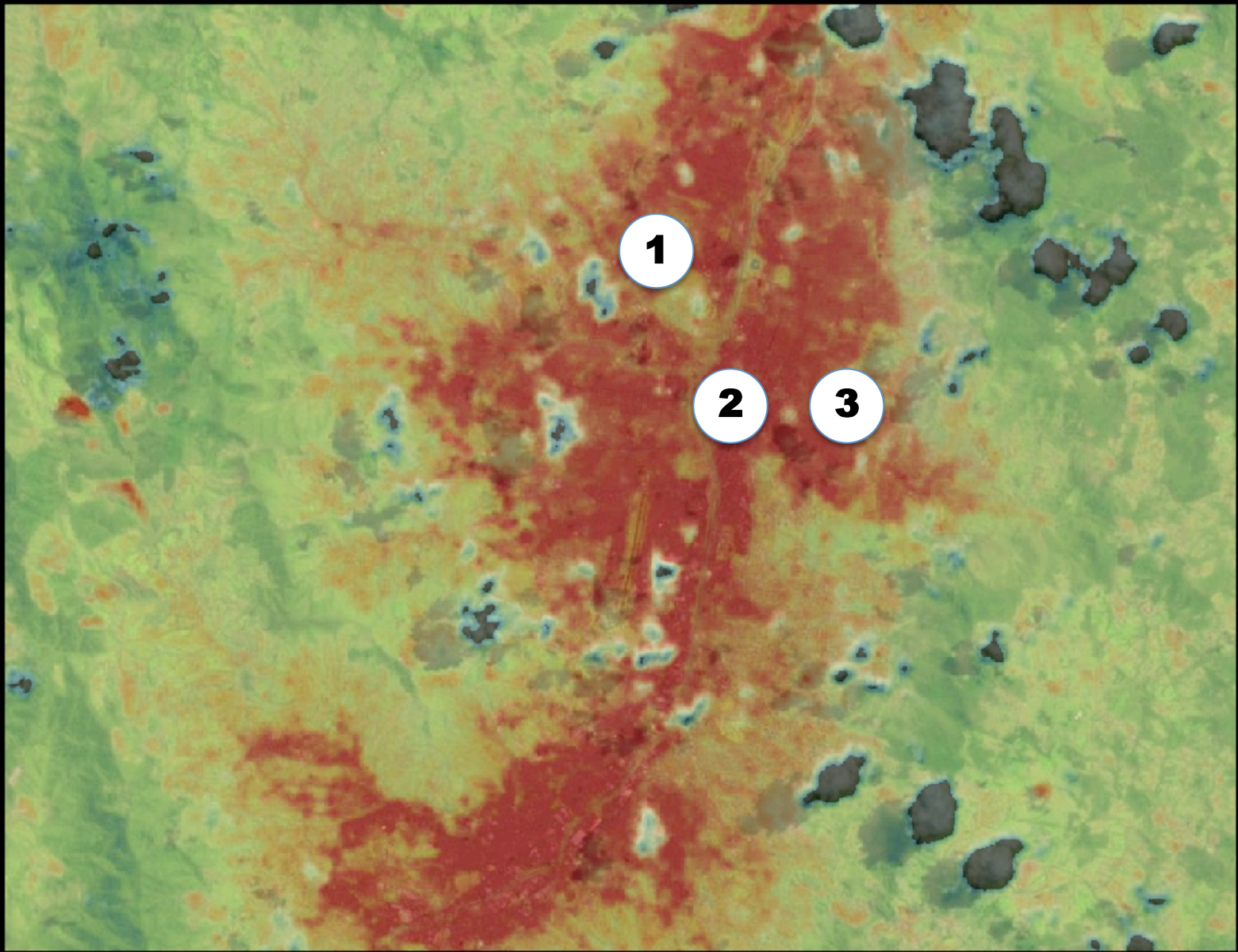




NATURAL COLOR

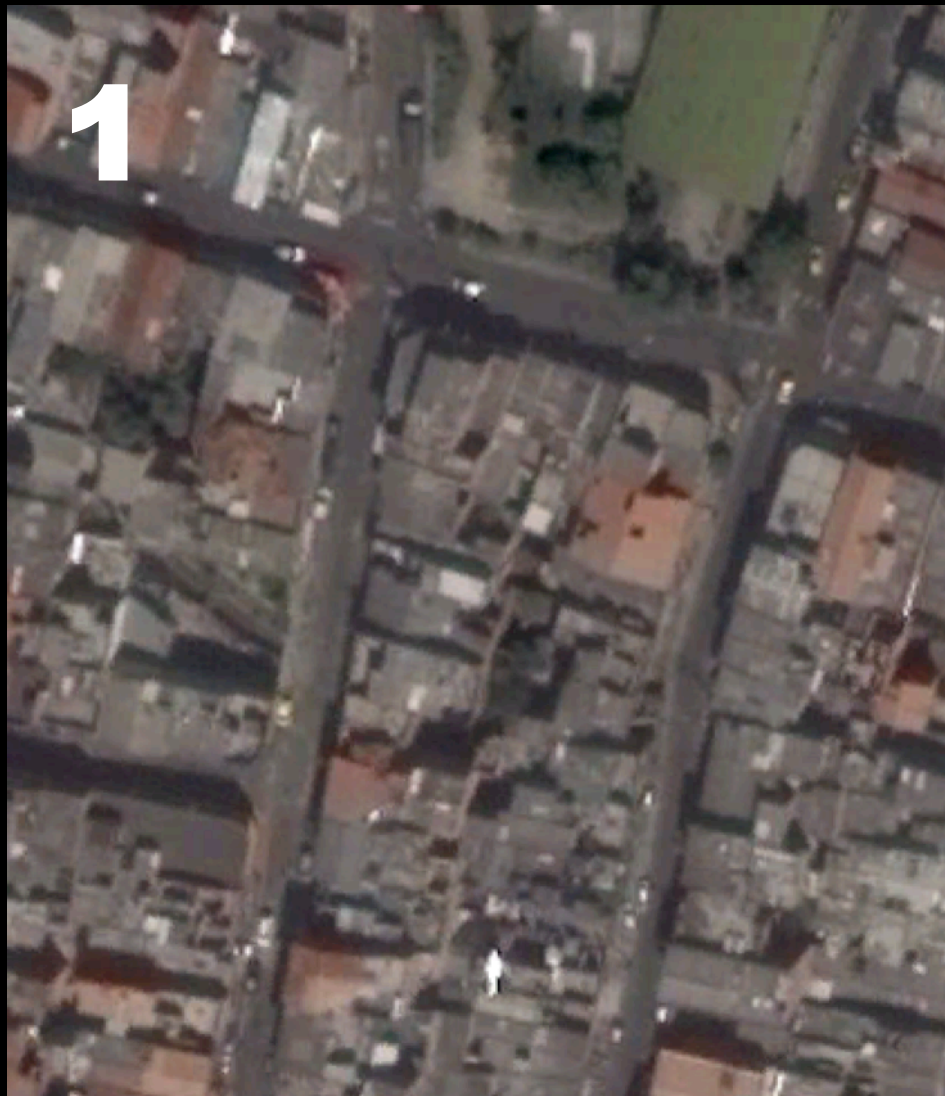
THERMAL INFRARED

MIX





1

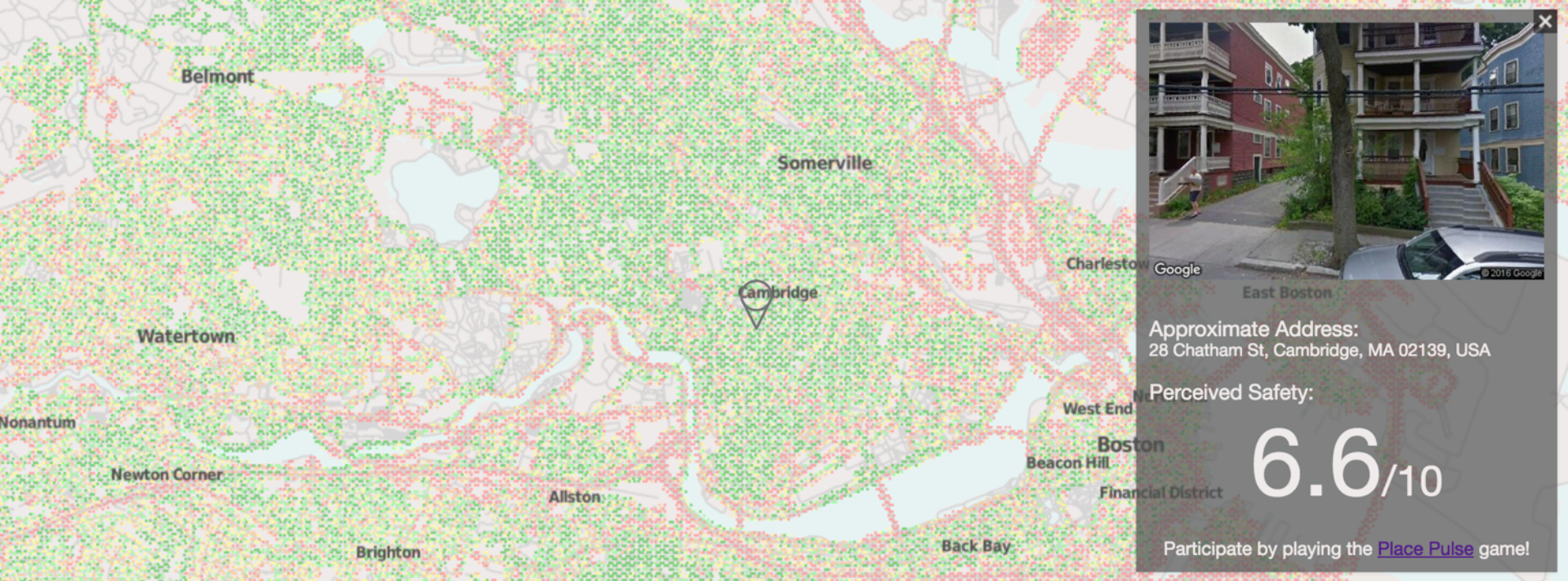


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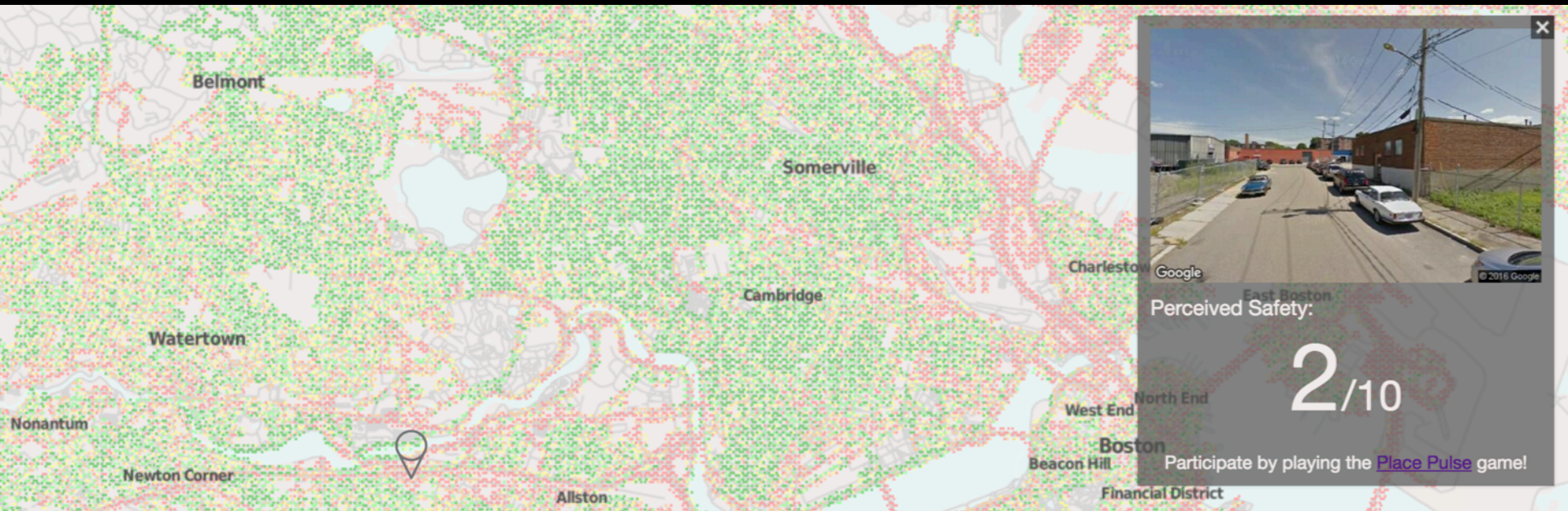


3





STREETSCORE.COM



Examine spatial / demographic corollaries to clusters of *Aedes aegypti*-transmitted disease.

Improve surveillance and intervention of mosquito-borne disease in dense urban areas.

Improve predictive models of such diseases by incorporating novel and multiscalar measures of urban form and urban climate.

Supplement interventions to mitigate transmission and infection among *Aedes aegypti*-transmitted disease.

How to more concretely bring migration into this project?

Seasonal fluctuations in population?

Data sources for capturing socio-demographic trends over time.

Welcoming feedback and ideas.

THANKS

MATT ALIOTA

JORGE OSORIO

SARAH PAIGE

JONATHAN PATZ

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