

新冠病毒流行 与海外生活

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MyUniUni符号留学讲座

*观点仅代表个人

内容提要

- ▶ 1. 流行病学简介
- ▶ 2. COVID-19 流行病学特征
- ▶ 3. 海外疫情概述
- ▶ 4. 美国疫情现状
- ▶ 5. 简评美国防疫
- ▶ 6. 留美学生防疫建议

什么是流行病学?

- ▶ Epidemiology
- ▶ Google词典定义: the branch of medicine which deals with the incidence (发生), distribution (分布), and possible control of diseases and other factors relating to health (相关因素之探究及应用).
- ▶ Epi = 在。。。之上
- ▶ Dem = 人群
- ▶ -logy = 学问

流行病学概念外延

▶ 经典方法：

- ▶ 概率观点和数理统计分析（基于人群）

- ▶ 相关性：时间、空间、社会因素。。。

- ▶ 因果推断：Hill氏原则

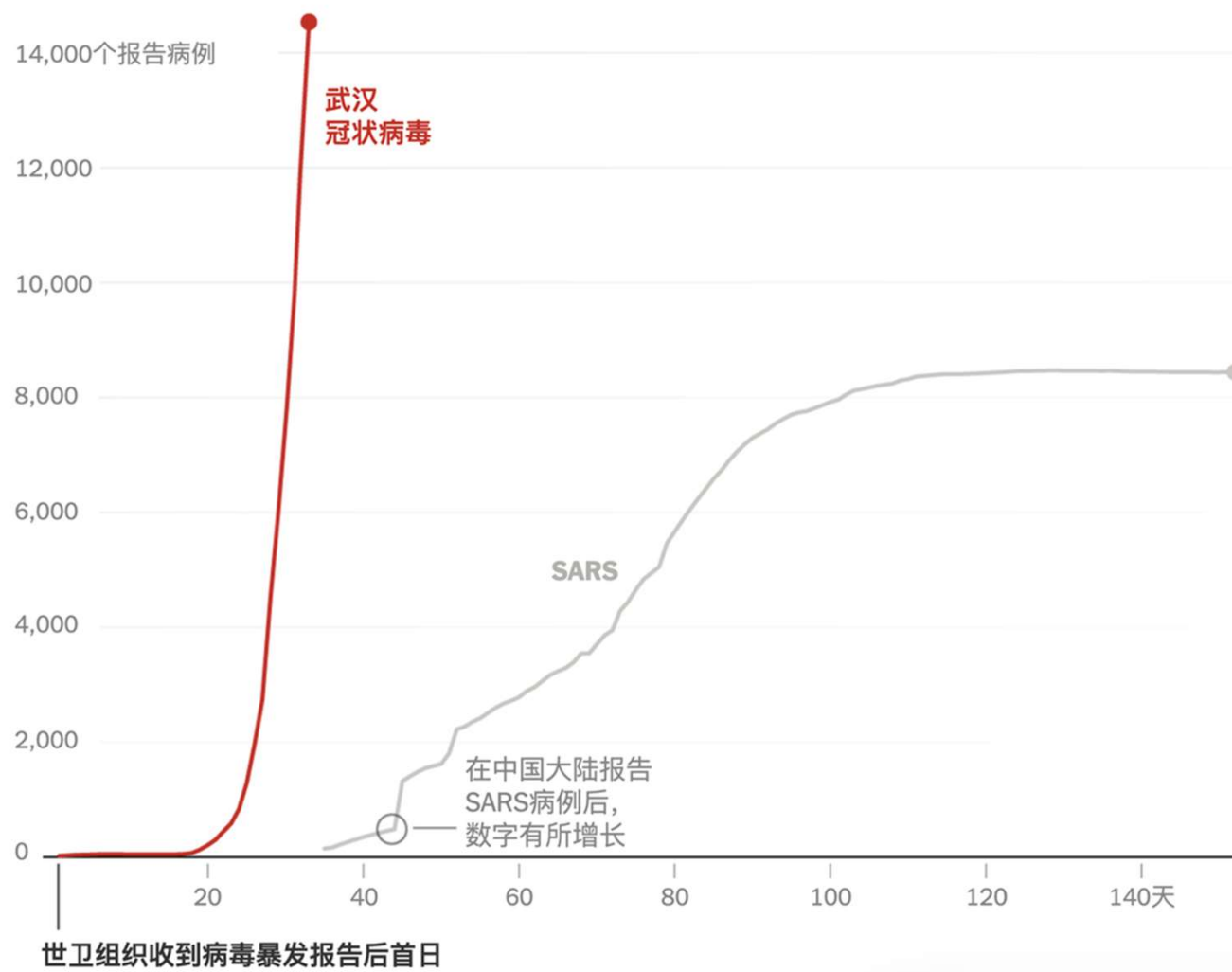
▶ 重要概念

- ▶ 风险 = 危害 × 暴露

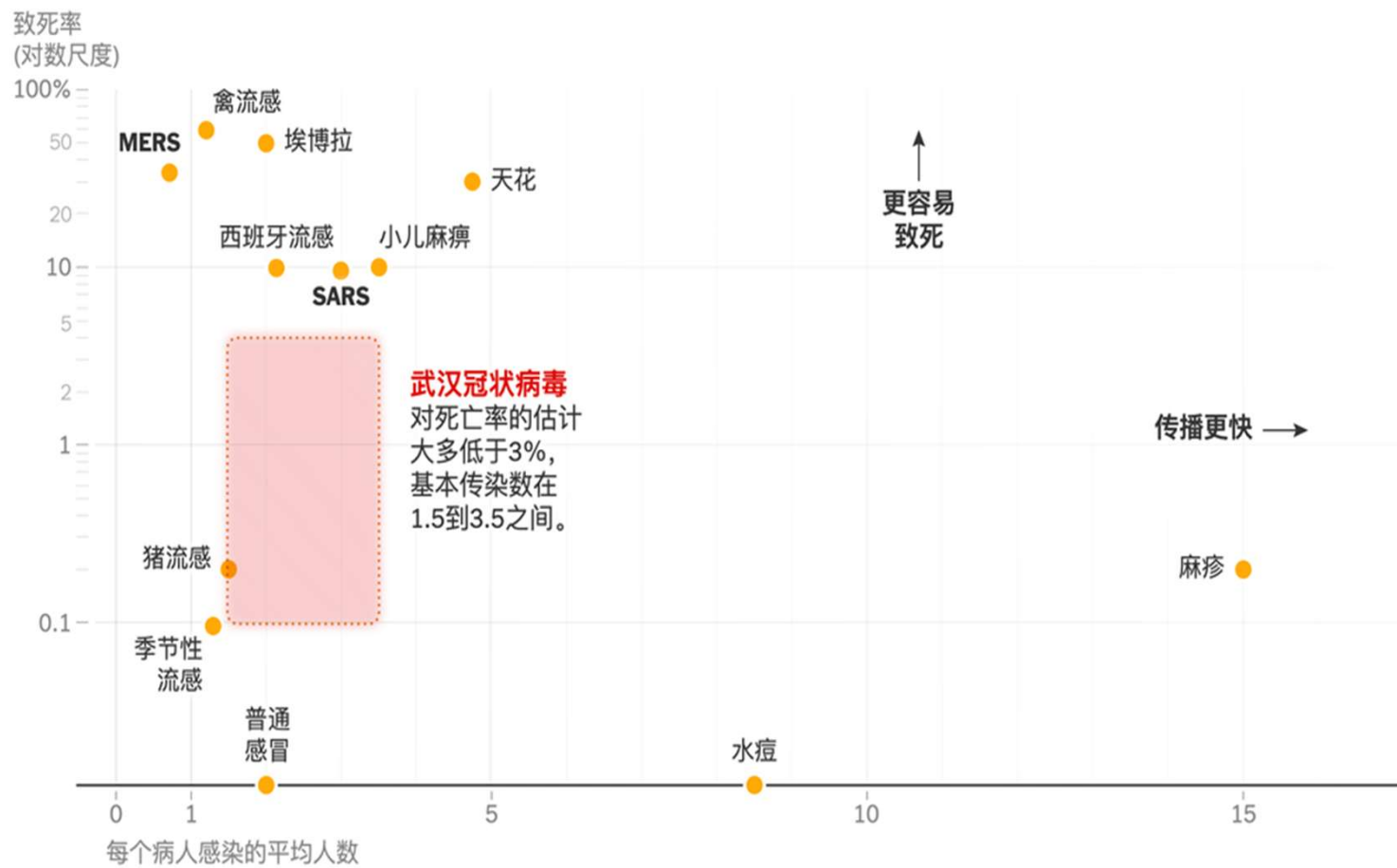
- ▶ 三要素：传染源、传播途径、易感人群

COVID-19 流行病学特征

- ▶ 高传染性 ($R_0 = 1.5 - 3.5$)
- ▶ 致病性因人而异
 - ▶ 免疫功能低下人群
 - ▶ 老年人 (60岁及以上)
 - ▶ 高病毒浓度暴露
- ▶ 发病率、致死率与公共卫生干预有关



<https://cn.nytimes.com/china/20200201/china-coronavirus-contain/>



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COVID-19 流行病学特征

- ▶ 高传染性 ($R_0 = 1.5 - 3.5$) → 潜在危害
- ▶ 致病性因人而异
 - ▶ 免疫功能低下人群
 - ▶ 老年人 (60岁及以上) → 个体化防御
 - ▶ 高病毒浓度暴露
- ▶ 发病率、致死率与公共卫生干预有关

Table. Case-Fatality Rate by Age Group in Italy and China^a

	Italy as of March 17, 2020		China as of February 11, 2020	
	No. of deaths (% of total)	Case-fatality rate, % ^b	No. of deaths (% of total)	Case-fatality rate, % ^b
All	1625 (100)	7.2	1023 (100)	2.3
Age groups, y				
0-9	0	0	0	0
10-19	0	0	1 (0.1)	0.2
20-29	0	0	7 (0.7)	0.2
30-39	4 (0.3)	0.3	18 (1.8)	0.2
40-49	10 (0.6)	0.4	38 (3.7)	0.4
50-59	43 (2.7)	1.0	130 (12.7)	1.3
60-69	139 (8.6)	3.5	309 (30.2)	3.6
70-79	578 (35.6)	12.8	312 (30.5)	8.0
≥80	850 (52.3)	20.2	208 (20.3)	14.8

^a Data from China are from Chinese Center for Disease Control and Prevention.⁴ Age was not available for 1 patient.

^b Case-fatality rate calculated as number of deaths/number of cases.

doi:10.1001/jama.2020.4683

全球 COVID-19 疫情现状

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Coronavirus COVID-19 Global Cases by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)



Total Confirmed

381,598

Confirmed Cases by
Country/Region/Sovereignty

81,552 China
63,927 Italy
46,438 US
35,136 Spain
29,056 Germany
23,049 Iran
20,123 France
9,037 Korea, South
8,795 Switzerland
6,726 United Kingdom
4,767 Netherlands
4,474 Austria

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Last Updated at (M/D/YYYY)

3/24/2020, 12:02:30 AM

168

countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Visualization: [JHU CSSE](#). Automation Support: [Esri Living Atlas team](#) and [JHU APL](#). Contact US. FAQ.
Data sources: [WHO](#), [CDC](#), [ECDC](#), [NHC](#), [DXY](#), [1point3acres](#), [Worldometers.info](#), [BNO](#), state and national government health departments, and local media reports. Read more in this [blog](#).



Cumulative Confirmed Cases

Active Cases

Total Deaths

16,559

6,077 deaths
Italy

3,160 deaths
Hubei China

2,311 deaths
Spain

1,812 deaths
Iran

860 deaths
France

335 deaths
United Kingdom

213 deaths
Netherlands

Total Recovered

101,806

60,323 recovered
Hubei China

8,376 recovered
Iran

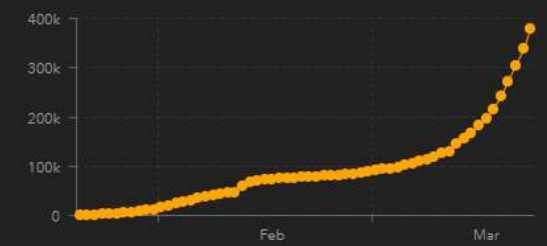
7,432 recovered
Italy

3,507 recovered
Korea, South

3,355 recovered
Spain

2,200 recovered
France

1,333 recovered
Guangdong China

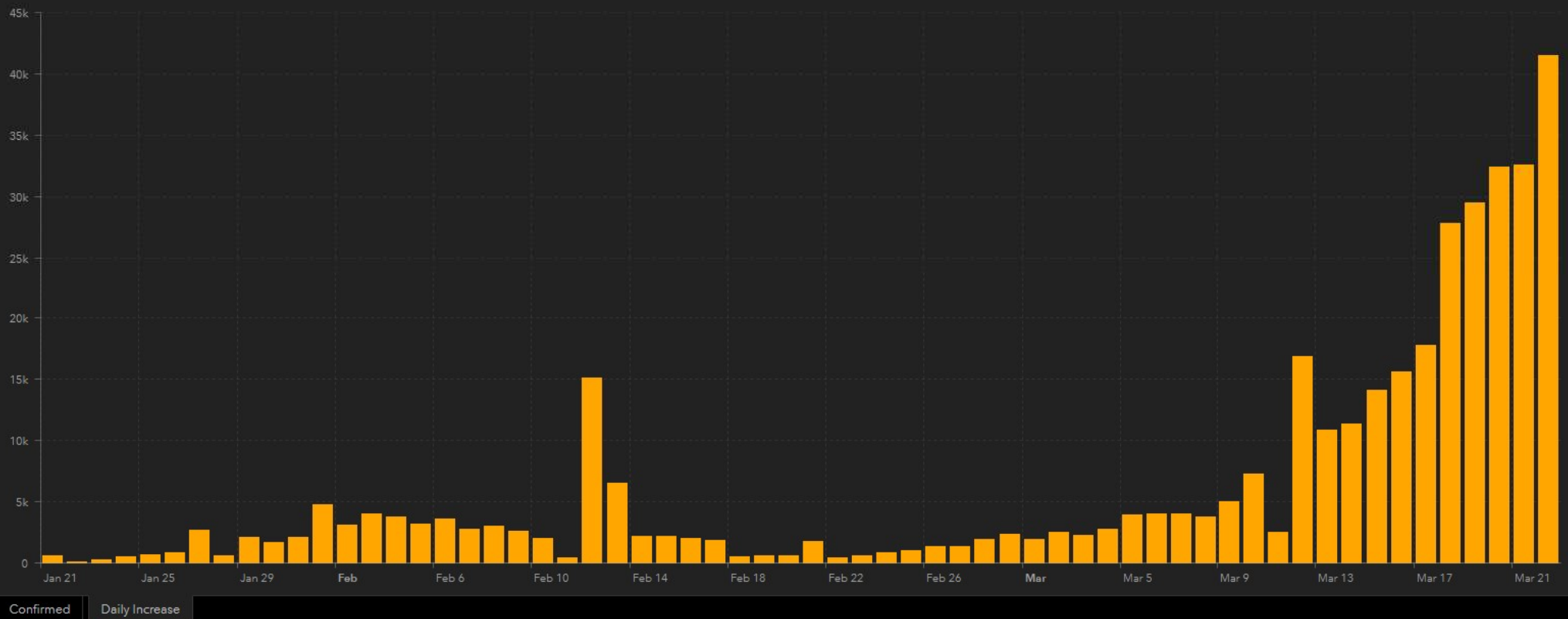


Confirmed

Daily Increase

► JHU ESRI COVID-19 dashboard

► <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

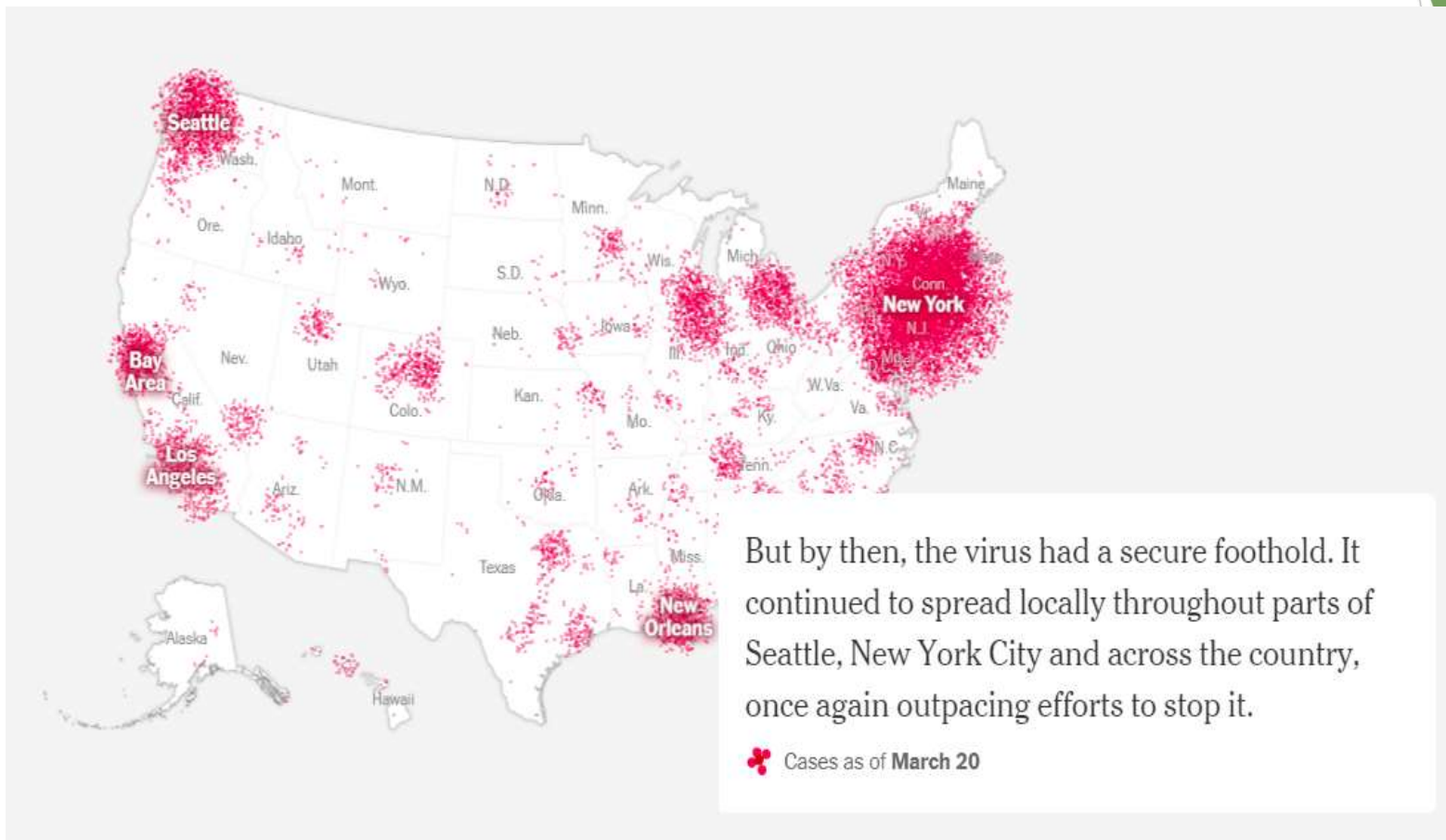


- https://public.flourish.studio/visualisation/1568001/?utm_source=showcase&utm_campaign=visualisation/1568001

美国疫情现状

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Confirmed Cases by US County

13,119 confirmed
New York City New York US

2,894 confirmed
Westchester New York US

2,442 confirmed
Nassau New York US

1,524 confirmed
Unassigned New York US

1,458 confirmed
Suffolk New York US

1,170 confirmed
King Washington US

922 confirmed
Cook Illinois US

638 confirmed
Wayne Michigan US

609 confirmed
Bergen New Jersey US

592 confirmed
Rockland New York US

567 confirmed
Orleans Louisiana US

540 confirmed
Los Angeles California US

519 confirmed
Cook Illinois US

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- ▶ JHU ESRI COVID-19 dashboard
- ▶ <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>
- ▶ https://public.flourish.studio/visualisation/1632510/?utm_source=showcase&utm_campaign=visualisation/1632510

西雅图



Filter case by clicking or zooming the map.

Repatriation/Cruise ship cases are separated from TX/CA/NE cases count, consistent with CDC



Santa Clara
Confirmed: 321
Deaths: 13

Filter case by clicking or zooming the map.

Repatriation/Cruise ship cases are separated from TX/CA/NE cases count, consistent with CDC



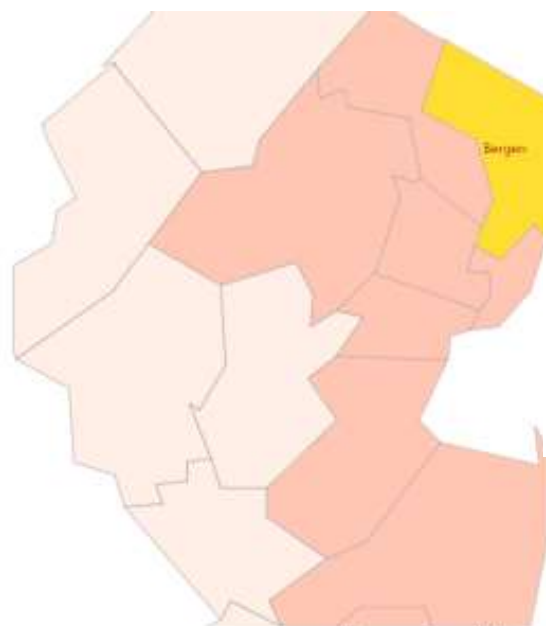
Los Angeles
Confirmed: 540
Deaths: 8

Filter case by clicking or zooming the map.

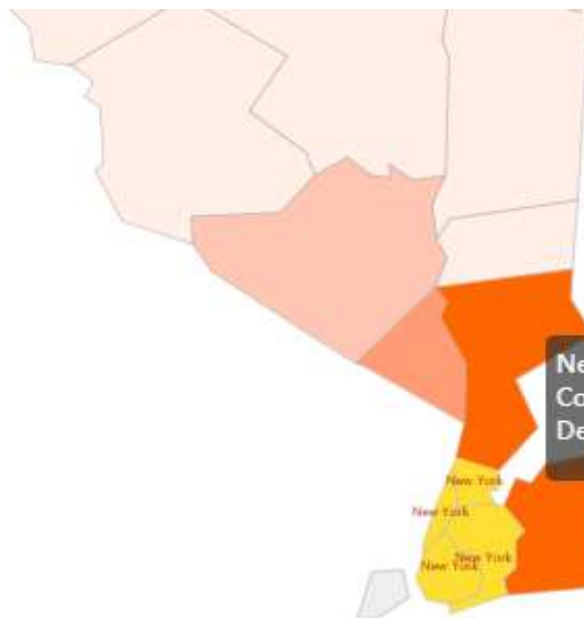
Repatriation/Cruise ship cases are separated from TX/CA/NE cases count, consistent with CDC

加州

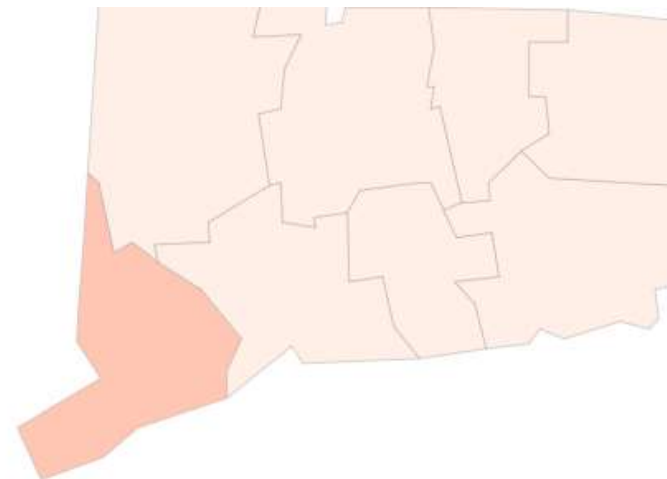
纽约都市圈



Filter case by clicking or zooming the map.
Repatriation/Cruise ship cases are separated from TX/CA/NE cases count, consistent with CDC

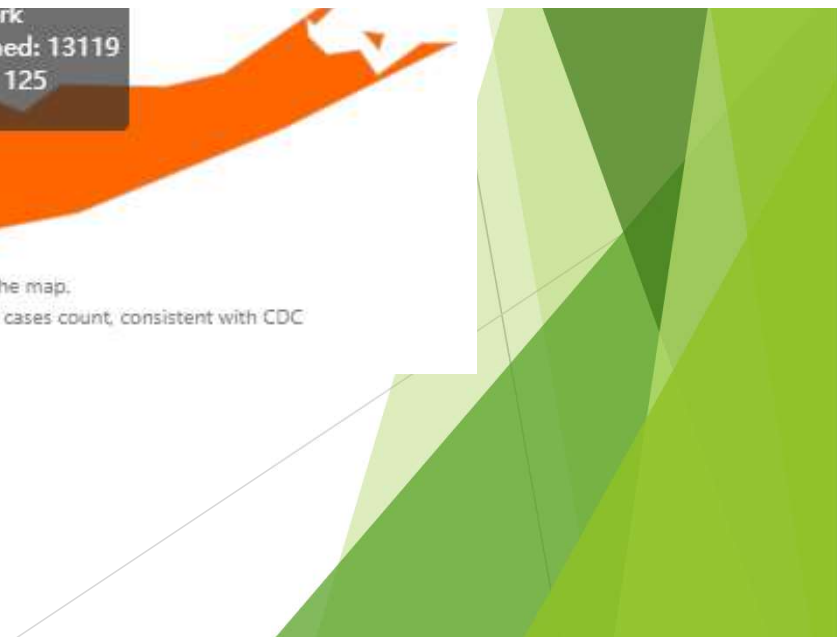


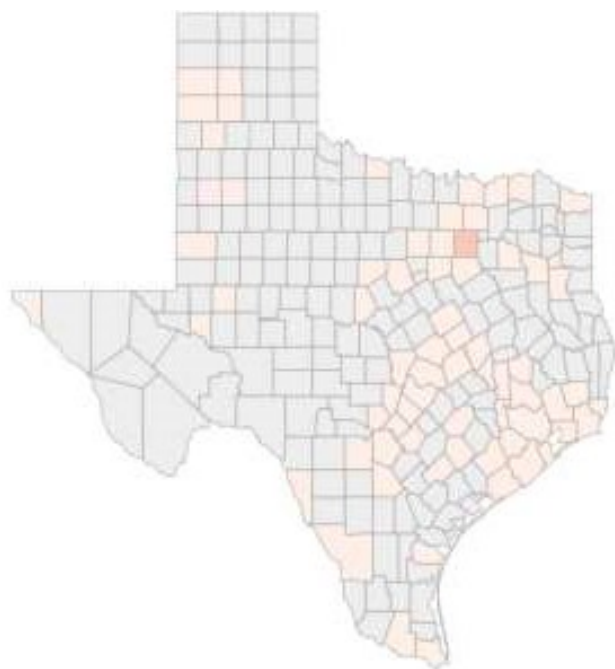
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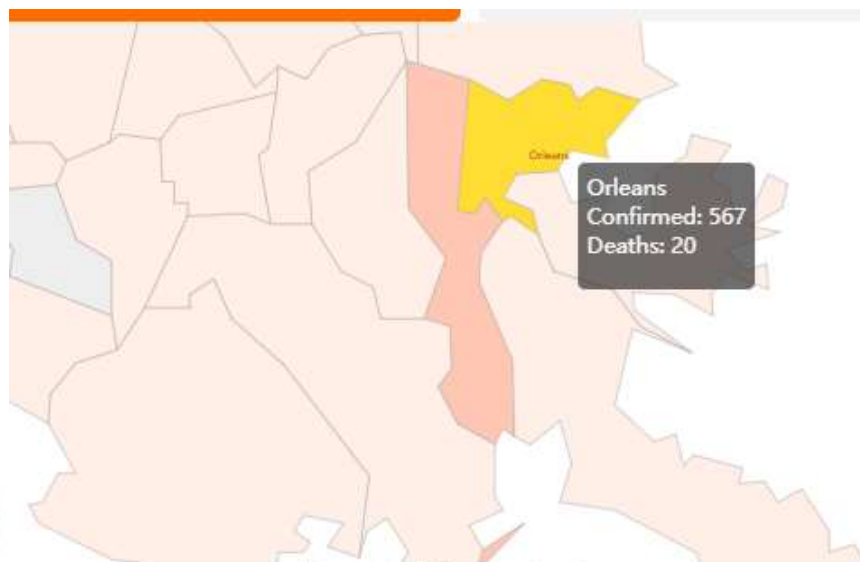
New York
Confirmed: 13119
Deaths: 125





Filter case by clicking or zooming the map.

Repatriation/Cruise ship cases are separated from TX/CA/NE cases count, consistent with CDC



Orleans
Confirmed: 567
Deaths: 20

Filter case by clicking or zooming the map.

Repatriation/Cruise ship cases are separated from TX/CA/NE cases count, consistent with CDC



Cook
Confirmed: 922
Deaths: 9

Filter case by clicking or zooming the map.

Repatriation/Cruise ship cases are separated from TX/CA/NE cases count, consistent with CDC

中部地区

美国疫情现状

- ▶ 本土48各州和首都都有确诊病例
- ▶ 高发病州有个别郡（市）感染人数奇高
- ▶ 各州陆续从输入性病例进入社区传播
- ▶ 后续可能引发家庭传染和医院内传染

“非必要不出户”

- ▶ New York
- ▶ New Jersey
- ▶ California
- ▶ Michigan
- ▶ Illinois
- ▶ Louisiana
- ▶ Ohio
- ▶ Wisconsin
- ▶ Connecticut
- ▶ Indiana
- ▶ Oregon
- ▶ Delaware
- ▶ West Virginia
- ▶ Washington
 - ▶ Seattle
- ▶ Missouri
 - ▶ St Louis
 - ▶ St Louis County
 - ▶ Jefferson County
 - ▶ Franklin County

COVID-19检测流程

▶ 美国CDC检测标准

- ▶ 发热100.4F

- ▶ 咳嗽

- ▶ 呼吸困难

- ▶ 流行病学联系

- ▶ 高危人群：65岁以上、基础病、一线医护

▶ 检测资格需要临床医生和公共卫生机构评估

▶ 正在逐步放宽标准

▶ 由临床医护人员采样送检

▶ 去商业化实验室仍需评估

Do you currently have these symptoms?

Cough

☒ Yes

☐ No

Fever

☒ Yes

☐ No

Shortness of breath

☐ Yes

☒ No

In the last 14 days before the start of your symptoms, did you travel internationally or to the areas where COVID-19 (Coronavirus) is widespread, including cruise ship travel?

☒ Yes

☐ No

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[CONTINUE](#)

In the 14 days before the start of your symptoms, did you have close contact with a suspected or laboratory-confirmed COVID-19 (Coronavirus) patient?

☒ Yes

☐ No

Are you over the age of 65?

☐ Yes

☒ No

Do you have any of the following medical conditions? Select "Yes" if you have any of the following.

☒ Yes

☐ No

- Heart disease
- Lung disease
- Kidney disease
- Diabetes
- Chemotherapy, HIV, or other immune disorders such as lupus, rheumatoid arthritis
- Long term use of prednisone or other immunosuppressive medications
- Organ transplantation or absence of spleen
- Pregnancy

Next steps

Based on the information you have provided, additional evaluation is needed so that a healthcare provider can review your symptoms and medical/travel history and recommend the most appropriate care for you.

COVID-19 Virtual Care

To start your free no-cost screening with one of our healthcare providers please click the button below

[START A VISIT](#)

健康信息来源

- ▶ 美国CDC: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>
- ▶ 所在州和郡/市公共卫生机构 (可在CDC.GOV搜索 local health department list)
- ▶ 治疗和检测先咨询本地公共卫生和医疗机构
- ▶ 一亩三分新冠疫情:
<https://coronavirus.1point3acres.com/en>
- ▶ 当地媒体
- ▶ 学校student health clinic

留美学生防疫建议

► 个人卫生

- 及时用肥皂/洗手液洗手（20秒洗手法）

- 酒精洗手液在肥皂洗手后使用

- 避免聚众

- 根据当地疫情选择口罩（在医疗机构和乘坐公共交通时工具尽量戴口罩）

► 作息正常

- 饮食健康营养

- 心理调节

留美学生应急预案

- ▶ 学校国际学生办公室
- ▶ 紧急联系渠道
 - ▶ 微信联系人+电话
 - ▶ Email或非手机可联系网络（比如，Facebook、微博）
- ▶ 联系人
 - ▶ 父母、亲密爱人（最熟悉的陌生人）
 - ▶ 非家庭成员（陌生的老熟人）
- ▶ 驻美领事馆求助渠道

提问环节

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