

Contraception and birth control

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Outline

- Brief history of fertility control
- Current patterns of fertility control
- Methods of family planning
- Coronavirus pandemic



Introduction

- Today, most married and unmarried sexually active women and men in the United States and in other developed countries
 - Limit their family size and/or controlling the timing and spacing of their births through birth control
- Fewer people in the developing countries use birth prevention methods



Most popular methods

- There are a variety of methods available to women and men to prevent births
- The most popular ones worldwide are contraception, sterilization, and abortion
- The effectiveness of these methods differs from one another, and each has its advantages and disadvantages



Brief history of fertility control

- The notion of birth prevention appeared early in human history
 - Egyptian papyri (1900–1100 BC)
 - Latin works of Pliny the Elder (AD 23–79)
 - Discorides (AD 40–90)
 - Greek writings of Soranus (ca. 100)
 - Arabic medicine in the 10th century
- Most fertility control methods were relatively ineffective, with the exception of induced abortion and withdrawal



Books on contraception

- *Medical History of Contraception* by Norman Himes (1936)
 - Exhaustive survey of contraception covering many cultures worldwide over three thousand years
- *Contraception: A History of Its Treatment by the Catholic Theologians and Canonists* by John T. Noonan (1966)
 - History of contraception from the pre-Christian era to the 1960s, with an emphasis on the interpretation and reception of contraception in the Catholic Church



Books on contraception

- *Contraception: A History* by Robert Jutte (2008)
 - It extends and updates much of the work of Himes and Noonan
- *History of Contraception: From Antiquity to the Present Day* by McLaren (1992)
 - A major historical treatment
- *Eve's Herbs: A History of Contraception and Abortion in the West* by West (1999)
 - It also focuses on the use of plants and herbal products to regulate fertility

Contraceptive methods

- Contraceptive methods have been available and used by the end of the 19th century
 - Except for hormonally based methods
 - Condoms were available since around the 17th century
 - Intrauterine devices (IUDs) were first developed in Germany in the 1920s
 - IUD research was not possible in the U.S. until much later, owing to legal and other types of restrictions
 - The manual vacuum-aspiration method of abortion was first described by the gynecologist of Queen Victoria of England (2nd half of 19th century)



Contraceptive methods

- The physiological principles behind oral contraceptives were developed in the 1920s
- “But the method made no progress, partly because of the lack of a cheap source of steroid and also because contraceptive research was not academically acceptable” (Potts, 2003: 96)



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Current patterns of fertility control

- 2002–2012 data on percentages of married women using various family planning methods for the world and most regions
 - Women 15–49 who are married or cohabiting
 - Data portray a contemporary empirical picture of the reproductive revolution since the 1950s, using various family planning methods
- No data for all countries in Europe and Oceania
 - Due to scarcity of family planning surveys conducted in many of these countries



Table 6.1. Percentage of Married Women using Family Planning Methods: World and Most Major Regions, 2002-2012

	All methods	All modern methods	Pill	IUD	Injectables	Male condom	Sterilization	
							Male	Female
WORLD	63	57	8	13	5	8	3	18
MORE DEVELOPED	72	63			-		-	
LESS DEVELOPED	62	56	7	14	6	6	2	19
LEAST DEVELOPED	34	29	10	1	11	2		3
Africa	33	27	9	4	9	2		2
Sub-Saharan Af.	26	21	5	1	10	2		2
Northern America	78	73	17	5	1	12	14	22
Latin America & the Caribbean	75	68	14	6	6	10		23
Asia	66	61	6	17	5	7	2	22
Western Asia	56	36	8	15		8		5
Central Asia	54	50	3	39	2	4		2
South Asia	54	47	7	2		6	1	29
Southeast Asia	62	54	15	7	19	4		7
East Asia	82	81	1	37		11	5	26
Europe								
Oceania	63							
Australia	72	68	30	2	2	15	9	7

Source: Population Reference Bureau, 2013



Variation by countries

- Less developed countries have almost similar levels as more developed countries
 - But the use of family planning methods is quite uneven across the various countries
- Percentage of married women using modern methods
 - 1% in South Sudan and Somalia
 - 2% in Chad
 - 84% in the United Kingdom and China
 - 87% in Portugal
 - 88% in Norway



Nonusers of contraception

- 37% of married women worldwide are contraception nonusers
- Women who are surgically sterile via a hysterectomy
 - Surgical removal of the uterus and sometimes the additional removal of the Fallopian tubes and the ovaries, or by some other non-contraceptive operation
- Women who themselves or their male partners are non-surgically sterile
- Women who are pregnant or in postpartum



Nonusers of contraception

- Women who are trying to become pregnant
- Women who have never had intercourse or have not had intercourse in the past three months
 - Not sexually active
- Women not using contraception and engaging in unprotected intercourse
 - Sexually active (intercourse in the last 3 months before the survey)
 - They are at the risk of becoming pregnant



Data on non-users, U.S.

- 62% of all women aged 15–44 are using family planning methods
- 38% not using contraceptive methods
- Of this 38%, only 8% who are not using contraceptive methods are sexually active, and thus at the risk of an unintended pregnancy



Methods of contraception

- Contraceptive methods can be divided into traditional and modern methods
- Traditional family planning methods include less effective “natural” methods
 - Calendar rhythm method (periodic abstinence)
 - Coitus interruptus (withdrawal)
 - Long-term abstinence
 - Prolonged breast-feeding



Modern methods

- Main modern methods of family planning
 - Oral contraceptive (pills), intrauterine device (IUD), contraception injection, male condom, and both male and female sterilization
- Other modern methods
 - Diaphragm, vaginal contraceptives (foams and jellies), contraceptive implants, female condom
- “Natural” family planning methods
 - Fertility awareness methods
 - Standard Days Method® and Billings ovulation method

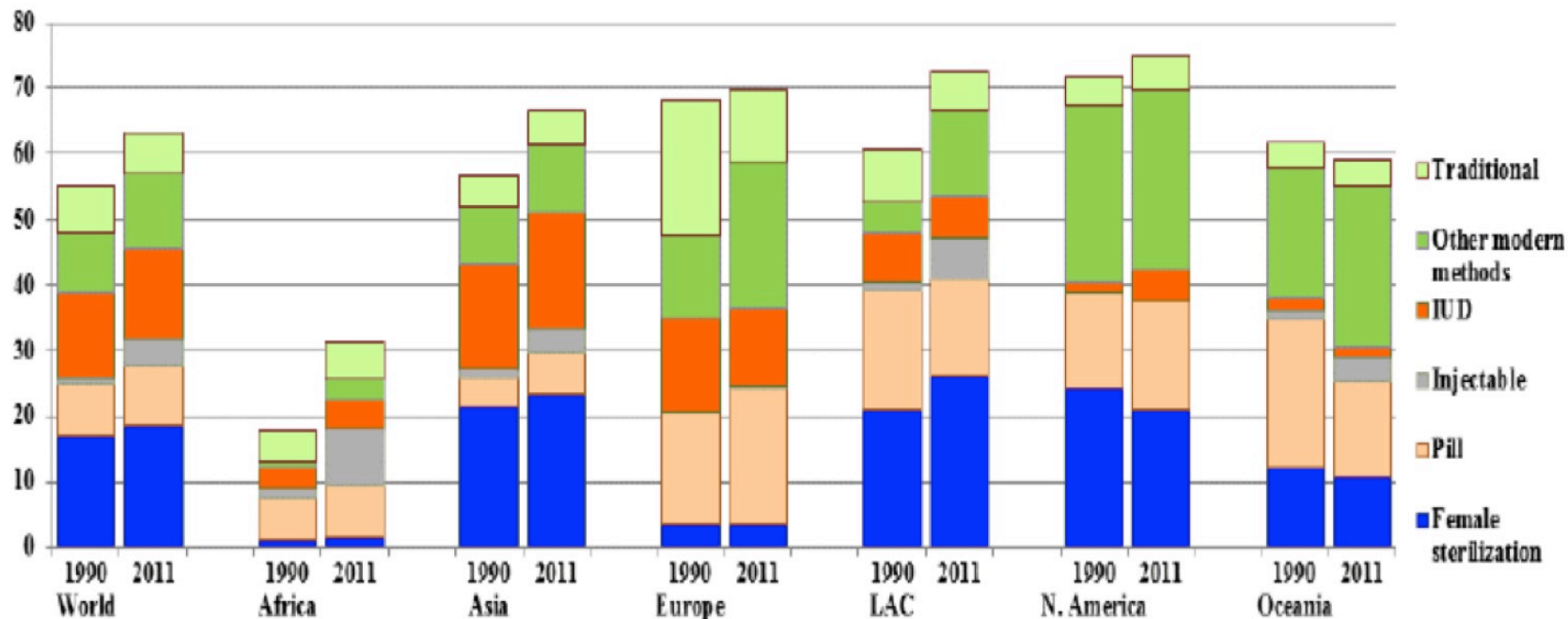


Differences in contraceptive use

- Women vary in the use of principal contraceptive methods around the world
 - However, patterns of use have not changed much between 1990 and 2012
- Most common method is female sterilization
 - 18% worldwide among married women
 - Common in Asia, LAC and North America
- Next popular methods
 - IUD (13%): common in Asia and Europe
 - Oral contraceptive and male condom (both at 8%), injectables (5%), male sterilization (3%)



Figure 6.1. Percentages of Married or In-union Women Using Different Methods of Contraception: The World and Its Regions, 1990 and 2011



Source: (UNDESf) United Nations Department of Economic and Social Affairs. 2013, p. 1.

Prevalence of specific methods

- One or two contraceptive methods comprise half or more of total contraceptive use among the married or cohabiting women in almost all countries
- The pill is the dominant method in 20 countries
- Traditional methods are dominant in 11 countries
- Other modern methods (hormonal implants, diaphragm, spermicides) comprise a relatively small percentage
- Traditional family planning methods are employed by only around 6% of married women and men in the world

Africa

- In Africa, overall family planning use is very low
 - Among married women who use a method, 1/6 of them utilize traditional method
 - In sub-Saharan Africa, 1/5 use traditional method
- In many sub-Saharan African countries, traditional methods account for more than 50%
 - Somalia: 15% of women use any method, but only 1% use a modern method
 - Democratic Republic of the Congo: 18% of women use any method, but only 5% use a modern method
 - Cameroon: 23% of women use any method, but only 14% use a modern method

Induced abortion

- An induced abortion is a pregnancy that has been terminated by human intervention with an “intent other than to produce a live birth”
(Henshaw, 2003)
- The most complete data on induced abortions are from countries where abortion is legal
- But even in the U.S. quantity and quality of the data vary considerably



Numbers of induced abortion

- In 2008, there were an estimated 44 million induced abortions worldwide
 - Most of the abortions in the world occurred in developing countries (38 million)
 - Rather than in developed countries (6 million)
 - This differential reflects the uneven distribution of the population in the two groups of countries
- Abortion rate
 - Number of abortions per 1,000 women aged 15–44
 - It decreased from 35 in 1995 to 28 in 2008
 - 34 to 29 in developing countries
 - 39 to 24 in developed countries



Table 6.2. Global and Regional Estimates of Induced Abortion, 1995, 2003, and 2008

Region and subregion	Number of abortions (millions)			Abortion rate*		
	1995	2003	2008	1995	2003	2008
World	45.6	41.6	43.8	35	29	28
Developed countries	10.0	6.6	6.0	39	25	24
excluding Eastern Europe	3.8	3.5	3.2	20	19	17
Developing countries ^a	35.5	35.0	37.8	34	29	29
excluding China	24.9	26.4	28.6	33	30	29
Region						
Africa	5.0	5.6	6.4	33	29	29
Asia	26.8	25.9	27.3	33	29	28
Europe	7.7	4.3	4.2	48	28	27
Latin America	4.2	4.1	4.4	37	31	32
Northern America	1.5	1.5	1.4	22	21	19
Oceania	0.1	0.1	0.0	21	18	17

* Abortions per 1,000 women ages 15–44.

^a The developing countries are those in Africa, the Americas (excluding Canada and the United States), Asia (excluding Japan), and Oceania (excluding Australia and New Zealand).

Source: Guttmacher Institute, 2012.



Legal vs. illegal abortion

- The greatest abortion rates decline occurred in Europe from 48 in 1995 to 27 in 2008
 - Primary due to “the precipitous drop in Eastern Europe that drove the entire continent’s decline” (Cohen, 2007)
- Abortions do not occur more often in countries where they are legal vs. in countries where they are illegal
 - 29 in Africa where it is mostly illegal
 - 27 in Europe where it is mostly legal



Safe and unsafe abortions

- Abortions are safer in countries where they are legally performed than where they are illegally performed
- According to the World Health Organization, an unsafe abortion is
 - “a procedure for terminating a pregnancy that is performed by an individual lacking the necessary skills, or in an environment that does not conform to minimal medical standards, or both” (Guttmacher Institute, 2012)



Unsafe abortions

- The percentage of all abortions that were unsafe increased from 44% in 1995 to 49% in 2008
- Disparity between the proportion of unsafe abortions in developed and developing countries
 - Almost all abortions in developed countries are safe
 - More than 97% of all abortions performed in Africa in 2008 were unsafe
- “In Asia, the proportion of abortions that are unsafe varies widely by subregion, from virtually none (very safe) in Eastern Asia to 65% in South Central Asia” (Guttmacher Institute, 2012)



Contraceptive behavior, U.S.

- 2006–2010 data from National Survey of Family Growth (NSFG) about U.S. women aged 15–44
 - 62% were using contraception
 - 38% were not using contraception
- Most popular methods for U.S. women
 - The pill: 17.1%
 - Female sterilization: 16.5%
 - Male condom: 10.2%
 - Male sterilization: 6.2%
 - Unlike the situation worldwide, for U.S. women the IUD is one of the least favored methods



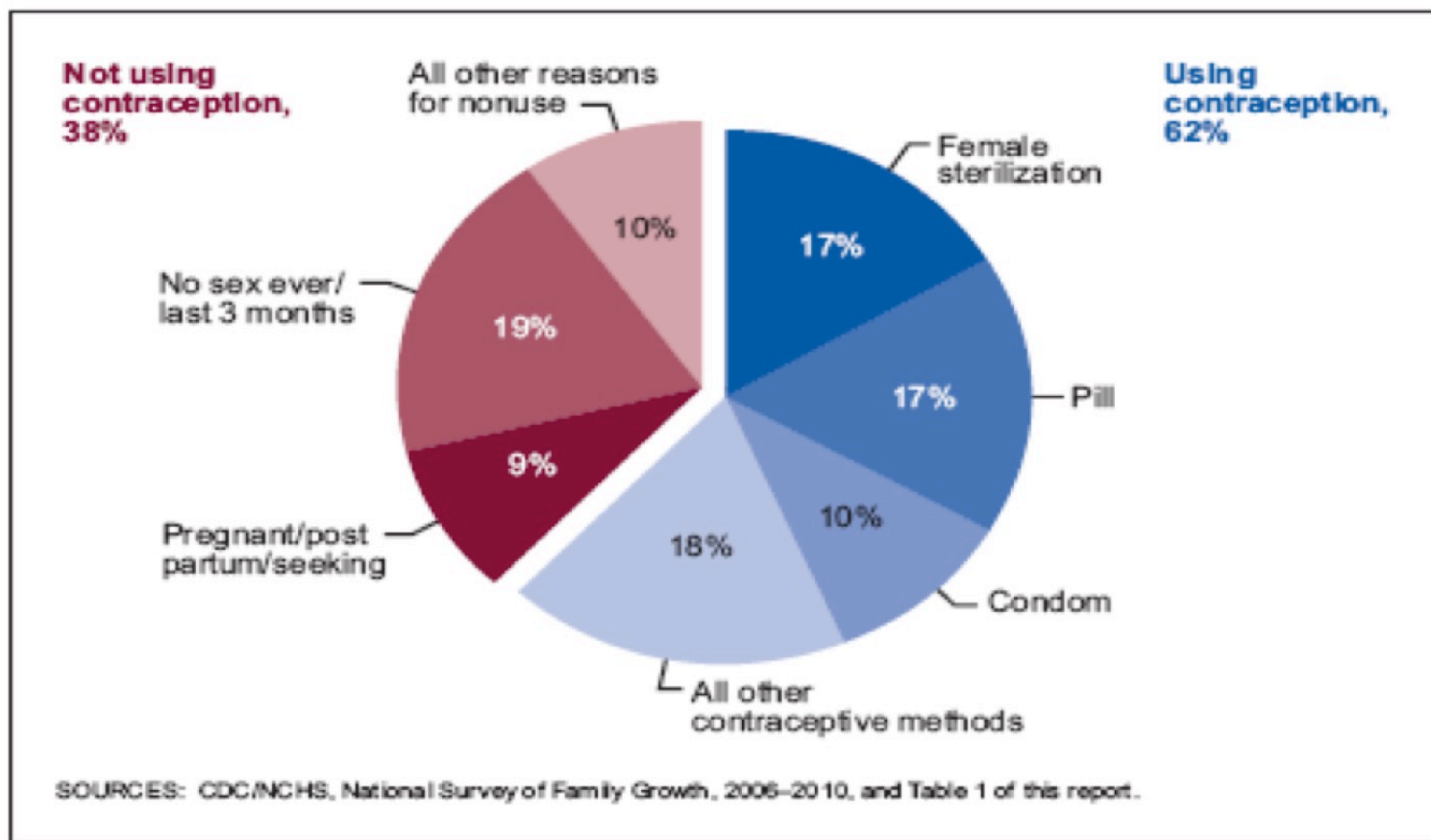
Table 6.3. Women 15–44 years of age, by current contraceptive status and method used: United States, 2006-2010

	All Women 100.0%
Using contraception (Contraceptors)	62.2
Female sterilization	16.5
Male sterilization	6.2
Pill	17.1
Other hormonal methods	4.5
Implant, Lunelle®, or patch	0.9
3-month injectable (Depo-Provera®)	2.3
Contraceptive ring	1.3
Intrauterine device (IUD)	3.5
Male condom	10.2
Periodic abstinence, calendar rhythm	0.6
Periodic abstinence, natural family planning	0.1
Withdrawal	3.2
Other methods ¹	0.3
Not using contraception	37.8
Surgically sterile – female (noncontraceptive)	0.4
Nonsurgically sterile – female or male	1.7
Pregnant or postpartum	5.0
Seeking pregnancy	4.0
Other nonuse	
Never had intercourse	11.8
No intercourse in 3 months before interview	7.3
Had intercourse in past 3 months before interview	7.7

¹Includes diaphragm (with or without jelly or cream), emergency contraception, female condom or vaginal pouch, foan, cervical cap, Today sponge, suppository or insert, jelly or cream (without diaphragm), and other methods.

Source: Jones, Mosher and Daniels, 2012: 14.

Figure 6.2. Percent Distribution of Women Aged 15-44, by Whether They Are Using Contraception, and By Reasons for Nonuse and Methods Used, United States, 2006-2010



Source: Jones, Mosher and Daniels, 2012: 5.

No contraception, U.S.

- Of the 38% of women not using contraception
 - 2.1% of them are sterile (surgically or nonsurgically)
 - 9% are pregnant, just gave birth, or are trying to become pregnant
 - Almost 12% have never had intercourse
 - 7.3% are not sexually active
 - 7.7% are nonusers of contraception and are sexually active
- Only 20% (7.7/38) of the non-users of contraception are sexually active and do not fall into one of the other categories
 - Only sexually active women are truly at risk of an unintended pregnancy



Most popular contraception

- Among all contracepting women aged 15–44, the most popular contraceptive methods are
- Oral contraceptive: 27.5%
- Female sterilization: 26.6%

Contraception by marital status

- Among currently and formerly married women, the most popular method is female sterilization
 - 30.2% of married women
 - 55.5% of formerly married women
- Among cohabiting and never married women, the most popular method is the pill
 - 32.2% of cohabiting women
 - 46.6% of never married women



Table 6.4. Percentage Distributions of Contracepting Women aged 15–44, by Contraceptive Method, according to Marital or Cohabiting Status: United States, 2006-2010

	All marital statuses	Currently married	Currently cohabiting	Formerly married, not-cohabiting	Never married, not-cohabiting
All Methods	100.0	100.0	100.0	100.01	100.0
Female sterilization	26.6	30.2	24.0	55.5	10.2
Male sterilization	10.0	17.1	4.0	6.1	0.6
Pill	27.5	18.6	32.2	16.5	46.6
Male condom	16.4	15.3	15.8	7.7	22.0
Other hormonal methods ¹	7.2	3.9	10.1	7.3	12.0
Intrauterine device (IUD)	5.6	7.1	5.9	3.6	3.0
Periodic abstinence ²	1.2	1.7	1.4	---	---
Other methods	5.7	6.1	6.6	3.1	5.4

¹Also includes Implanon, 1-month injectable (Lunelle), contraceptive patch, and contraceptive ring.

²Includes calendar rhythm, natural family planning (NFP), cervical mucus test, and temperature rhythm.

Source: Jones, Mosher, and Daniels, 2012: 17.



Effective contraceptive use by union status and race/ethnicity

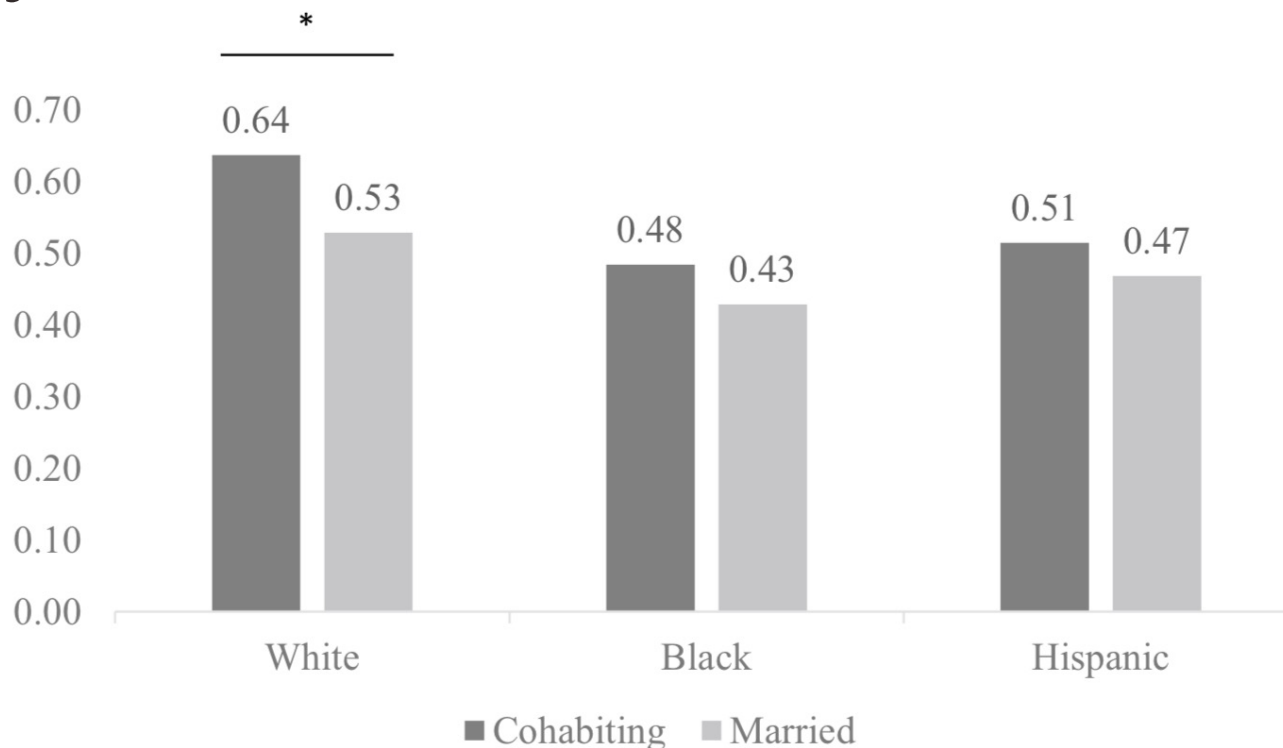


Fig. 1 Weighted predicted probabilities of effective contraceptive use across race and ethnicity. *Notes:* * $p < 0.05$. Predicted probabilities are based on a model that adds interaction terms of race/ethnicity and union status to Model 2 in Table 2 (model not shown). *Source:* 2013–2015 National Survey of Family Growth

- Model controls for union status, race/ethnicity, parity, age, union duration, education, health insurance, religiosity, and interaction terms of race/ethnicity and union status.

Contraception use by age

- Patterns of contraceptive use and nonuse of U.S. women vary by age
- Among contraception users
 - Oral contraceptive (pill)
 - 49% among women aged 15–24
 - 33% among women in their late 20s
 - 10% among women in their early 40s
 - Female sterilization
 - 3% among women aged 20–24
 - 30% among women aged 30–34
 - 51% among women aged 40–44



Contraception use by education

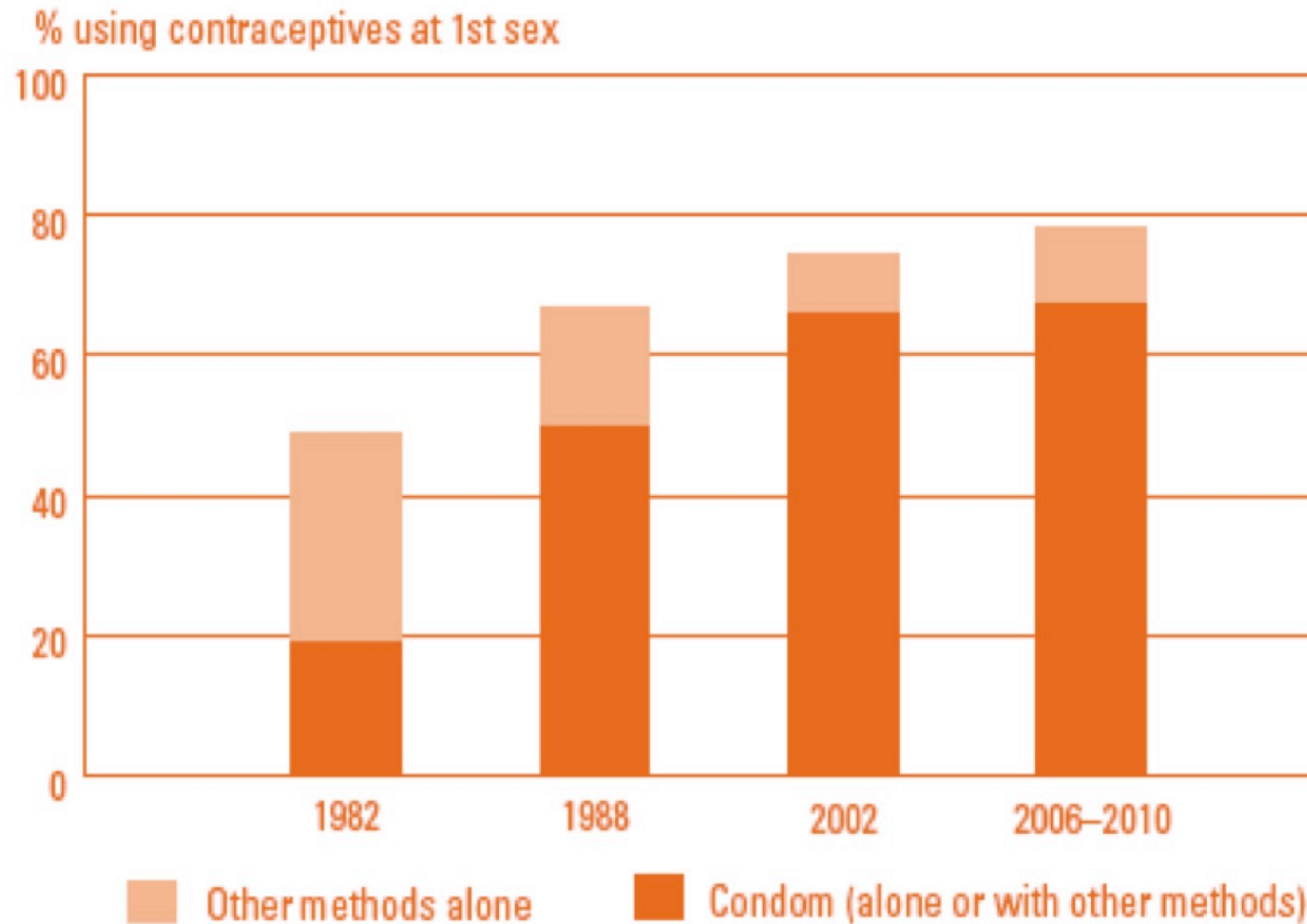
- Among contracepting women in the U.S.
 - Those with less education tend to rely on female sterilization
 - Those with more education use the pill
- Use of oral contraceptive
 - 11% among women without a high school education
 - 35% among women with at least a four-year college degree

First premarital intercourse

- The use of contraception in a woman's first premarital intercourse
 - This is important because it is the beginning of exposure to the risk of nonmarital pregnancy, birth, and sexually transmitted infections
- Teenagers who do not use a contraceptive method the first time they have sex are twice as likely to become pregnant and have a baby
 - Compared to teenagers who do use a method the first time they have sex



Figure 6.3. Percentage of Teenagers Using Contraceptives at 1st Sex: United States 1982 to 2006-10



Source: Guttmacher Institute, 2014a: 2 (reprinted with permission of the Guttmacher Institute).

Abortions in the United States

- Abortions became legal in the U.S. in 1973 in the Roe v. Wade decision by the Supreme Court
 - Women, in consultation with their physician, have a constitutionally protected right to have an abortion in the early stages of pregnancy, that is, before the fetus is viable, free from government interference
- Between 1973 and 2011
 - 53 million legal abortions were performed
 - 1.3 million in 2000
 - 1.2 million in 2008
 - Just over 1 million in 2011



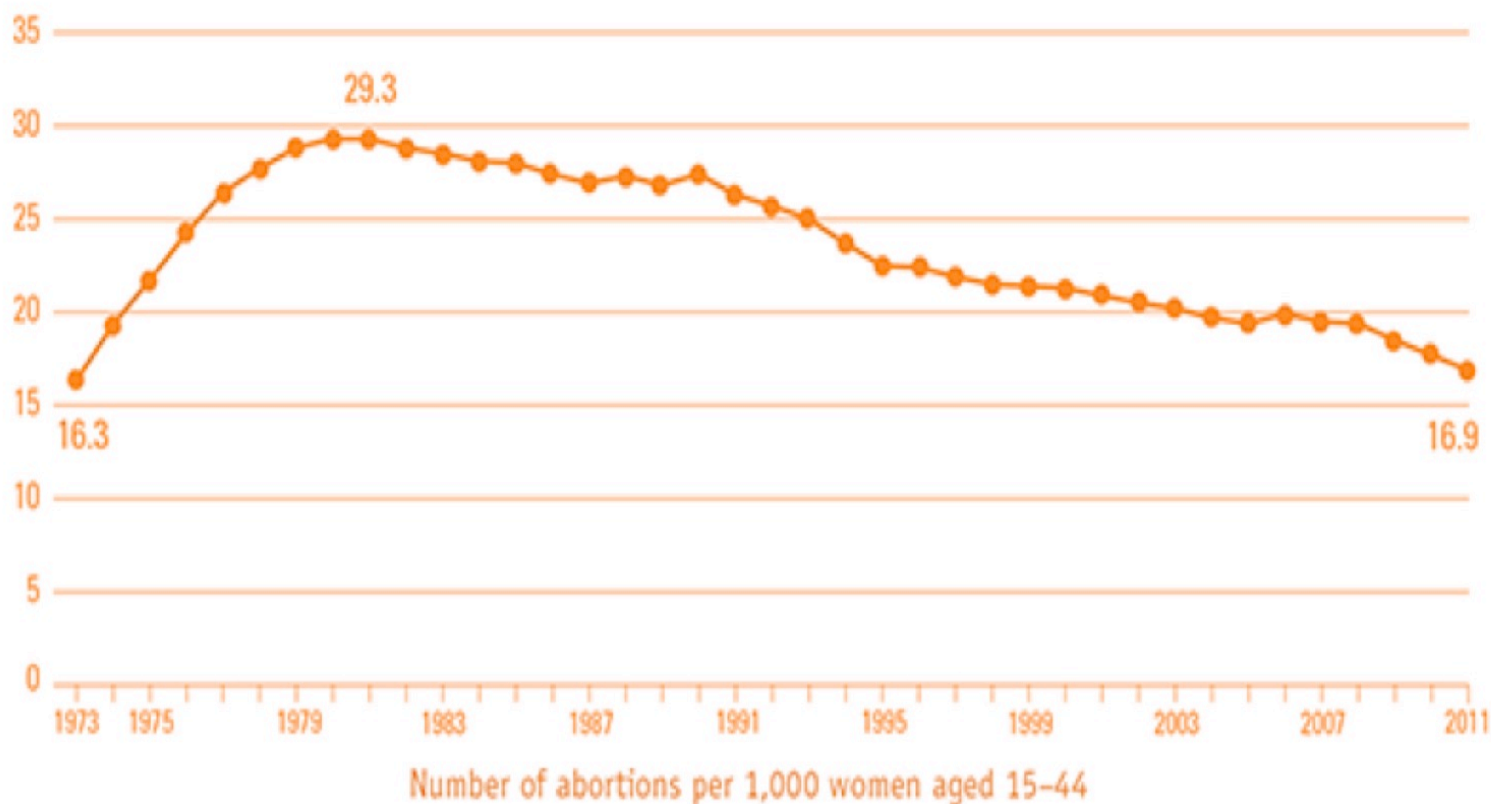
Abortions in the United States

- Percentage of women expected to have an abortion by age 45
 - 43% in 1992
 - 30% in 2008
- About 20% of pregnancies end in abortion
- Abortion is one of the most common surgical procedures experienced by U.S. women



Figure 6.4. Number of Abortions per 1,000 Women aged 15-44, by Year: United States, 1973-2011

In 2011, the U.S. abortion rate reached its lowest level since 1973



www.guttmacher.org

Source: Guttmacher Institute, 2014b (reprinted with permission of the Guttmacher Institute).

Of all abortions in 2011

- Age
 - 33% by women aged 20–24
 - 24% by women aged 25–29
- Race/ethnicity
 - 30% by non-Hispanic black women
 - 36% by non-Hispanic white women
 - 25% by Hispanic women
 - 9% by women of other races



Of all abortions in 2011

- Religion
 - 37% by Protestants
 - 28% by Catholics
- 45% by women who have never married and are not presently cohabiting
- 61% by women with 1+ children



Abortions by time period

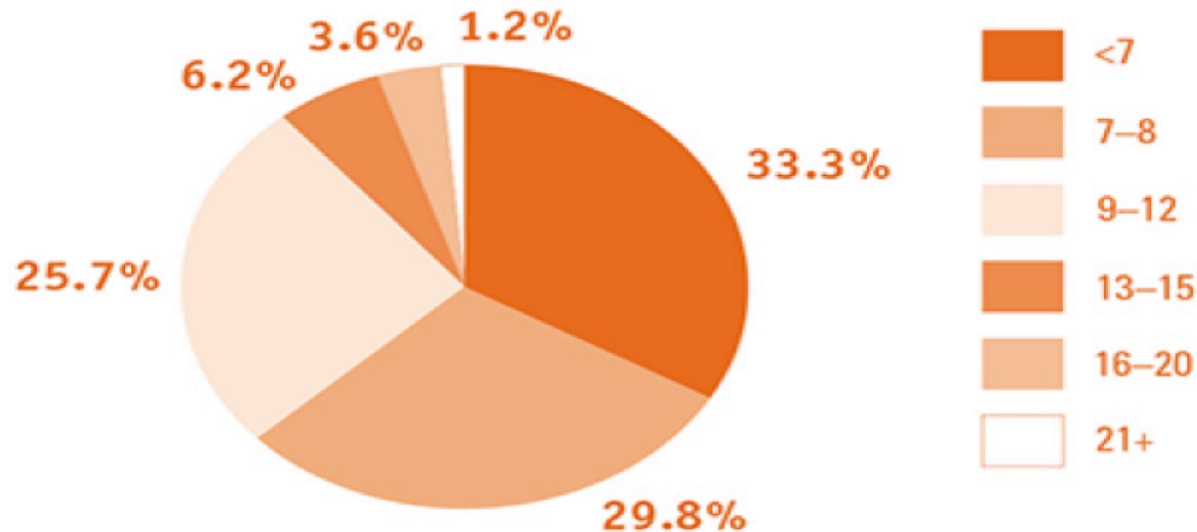
- Around 89% of all legal abortions performed in the U.S. in 2010 were to women in the first 12 weeks of their pregnancies
 - 63% by women in the first 8 weeks of their pregnancies
 - 26% by women in the 9–12 weeks
- 1% by women in the 21st or later week



Figure 6.5. Percentage of abortions to U.S. Women, by Time Period of Occurrence, 2010

When women have abortions*

One-third of abortions occur at six weeks of pregnancy or earlier;
89% occur in the first twelve weeks, 2010



*In weeks from the last menstrual period.

www.guttmacher.org

Source: Guttmacher Institute, 2014b (reprinted with permission of the Guttmacher Institute).





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Methods of family planning

- Several ways to categorize contraceptives
 - Whether or not the contraceptive serves as a barrier to keep the man's sperm from entering the woman
 - Whether the contraceptive contains hormones
 - Whether the contraceptive requires continuous input (e.g., the pill or the condom) or whether it is long-lasting (e.g., IUDs and implants)
 - Whether to rank the contraceptive on the basis of its efficacy and failure in preventing pregnancy



Effectiveness

- Effectiveness of family planning methods may be measured in terms of use effectiveness or theoretical effectiveness
 - **Use effectiveness** measures the effectiveness of the method taking into account the fact that some users do not follow the directions and the rules perfectly
 - And/or may not use the method all the time
 - Use effectiveness data tell us how effective the method is in typical use
 - **Theoretical effectiveness** refers to the “efficaciousness” of the method when it is used “consistently according to a specified set of rules” and used all the time



Table 6.5. Contraceptive Failure Rates (Percentage of Women Experiencing an Unintended Pregnancy during the First Year of Use), by Contraceptive Method, according to Use (i.e., Typical) Effectiveness and Theoretical (i.e., Perfect) Effectiveness, United States, post-2000

Method	Use Effectiveness	Theoretical Effectiveness
No method	85	85
Spermicides ¹	28	18
Fertility awareness methods	24	
Standard days method		5
Two-day method		4
Ovulation method		3
Symptothermal method		0.4
Withdrawal	22	4

Method	Use Effectiveness	Theoretical Effectiveness
Sponge		
Parous women	24	20
Nulliparous women	12	9
Female condom ²	21	5
Male condom ²	18	2
Diaphragm ³	12	6
Combined pill & progestin-only pill	9	0.3
Ortho Evra patch	9	0.3
Vaginal ring, NuvaRing	9	0.3
Injectables, Depo-Provera	6	0.2

Method	Use Effectiveness	Theoretical Effectiveness
Intrauterine device (IUD)		
ParaGard	0.8	0.6
Mirena	0.2	0.2
Female sterilization	0.5	0.5
Male sterilization	0.15	0.10
Implanon	0.05	0.05

Notes:

¹ Foams, creams, gels, and vaginal suppositories.

² Without spermicides

³ With spermicidal cream or jelly

Source: Trussel and Guthrie, 2011, chapter 3: Table 3-2.



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Coronavirus pandemic, August 24, 2020

#	Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop	Deaths/ 1M pop	Total Tests	Tests/ 1M pop	Population
	World	23,809,061	+6,189	817,005	+431	16,358,235	6,633,821	61,715	3,054	104.8			
1	USA	5,915,630		181,114		3,217,981	2,516,535	16,483	17,856	547	76,883,479	232,071	331,293,410
2	Brazil	3,627,217		115,451		2,778,709	733,057	8,318	17,046	543	14,144,344	66,473	212,784,888
3	Mexico	563,705	+3,541	60,800	+320	389,124	113,781	3,346	4,365	471	1,263,835	9,787	129,132,739
4	India	3,164,881		58,546		2,403,101	703,234	8,944	2,290	42	35,902,137	25,978	1,382,011,722
5	UK	326,614		41,433		N/A	N/A	72	4,807	610	15,177,265	223,394	67,939,531
6	Italy	260,298		35,441		205,662	19,195	65	4,306	586	8,053,551	133,231	60,448,212
7	France	244,854		30,528		85,199	129,127	399	3,750	468	6,000,000	91,890	65,295,389
8	Spain	420,809		28,872		N/A	N/A	658	9,000	617	8,517,446	182,162	46,757,536
9	Peru	600,438		27,813		407,301	165,324	1,525	18,174	842	3,006,993	91,014	33,038,913
10	Iran	361,150		20,776		311,365	29,009	3,848	4,292	247	3,062,422	36,392	84,150,494
11	Colombia	551,696		17,612		384,171	149,913	1,493	10,825	346	2,508,972	49,231	50,962,919
12	Russia	961,493		16,448		773,095	171,950	2,300	6,588	113	34,600,000	237,077	145,943,991
13	South Africa	611,450		13,159		516,494	81,797	539	10,291	221	3,564,065	59,983	59,418,339
14	Chile	399,568		10,916		372,464	16,188	1,014	20,875	570	2,231,463	116,583	19,140,575
15	Belgium	82,092	+156	9,996	+4	18,242	53,854	89	7,079	862	2,144,563	184,921	11,597,214
16	Germany	236,117		9,336		209,600	17,181	245	2,817	111	10,197,366	121,652	83,824,401
17	Canada	125,647		9,083		111,694	4,870	62	3,325	240	5,169,166	136,782	37,791,278
18	Argentina	350,867		7,366		256,789	86,712	1,960	7,753	163	1,105,878	24,435	45,257,261
19	Indonesia	155,412		6,759		111,060	37,593		567	25	2,056,166	7,506	273,950,524
20	Iraq	207,985		6,519		150,389	51,077	661	5,154	162	1,457,665	36,125	40,350,522

Source: <https://www.worldometers.info/coronavirus/>.

Coronavirus pandemic, October 20, 2020

#	Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop	Deaths/ 1M pop	Total Tests	Tests/ 1M pop	Population
	World	40,912,578	+273,370	1,126,859	+4,100	30,495,871	9,289,848	73,305	5,249	144.6			
1	USA	8,477,082	+20,429	225,633	+411	5,516,324	2,735,125	15,487	25,565	680	127,223,140	383,676	331,589,837
2	Brazil	5,255,277	+4,150	154,327	+101	4,681,659	419,291	8,318	24,671	724	17,900,000	84,031	213,015,720
3	India	7,648,248	+53,512	115,938	+702	6,791,102	741,208	8,944	5,526	84	96,116,771	69,444	1,384,085,979
4	Mexico	854,926	+3,699	86,338	+171	623,494	145,094	2,617	6,610	668	2,187,985	16,917	129,339,873
5	UK	762,542	+21,331	43,967	+241	N/A	N/A	629	11,215	647	30,187,915	443,979	67,993,982
6	Italy	434,449	+10,874	36,705	+89	255,005	142,739	870	7,189	607	13,784,181	228,084	60,434,663
7	Spain	1,029,668	+13,873	34,210	+218	N/A	N/A	1,911	22,020	732	15,503,165	331,545	46,760,297
8	France	930,745	+20,468	33,885	+262	106,839	790,021	2,177	14,250	519	13,894,126	212,717	65,317,424
9	Peru	870,876		33,820		784,056	53,000	1,094	26,303	1,021	4,249,458	128,347	33,109,207
10	Iran	539,670	+5,039	31,034	+322	434,676	73,960	4,810	6,401	368	4,570,243	54,204	84,314,980
11	Colombia	965,883		29,102		867,961	68,820	2,115	18,922	570	4,467,051	87,511	51,045,852
12	Argentina	1,002,662		26,716		803,965	171,981	4,392	22,124	589	2,626,406	57,952	45,320,654
13	Russia	1,431,635	+16,319	24,635	+269	1,085,608	321,392	2,300	9,809	169	54,675,096	374,606	145,953,533
14	South Africa	705,254		18,492		635,257	51,505	546	11,846	311	4,565,980	76,697	59,532,742
15	Chile	494,478	+1,099	13,702	+26	466,643	14,133	770	25,800	715	3,955,343	206,377	19,165,653
16	Indonesia	368,842	+3,602	12,734	+117	293,653	62,455		1,344	46	4,123,624	15,028	274,392,799
17	Ecuador	154,115	+692	12,404	+9	134,187	7,524	365	8,696	700	499,671	28,193	17,723,023
18	Belgium	230,480	+8,227	10,443	+30	21,214	198,823	446	19,861	900	4,157,817	358,281	11,604,914
19	Iraq	434,598	+3,920	10,366	+49	366,134	58,098	466	10,734	256	2,665,530	65,834	40,488,958
20	Germany	378,145	+4,414	9,937	+38	298,300	69,908	851	4,509	118	19,276,507	229,851	83,865,285

Source: <https://www.worldometers.info/coronavirus/>.

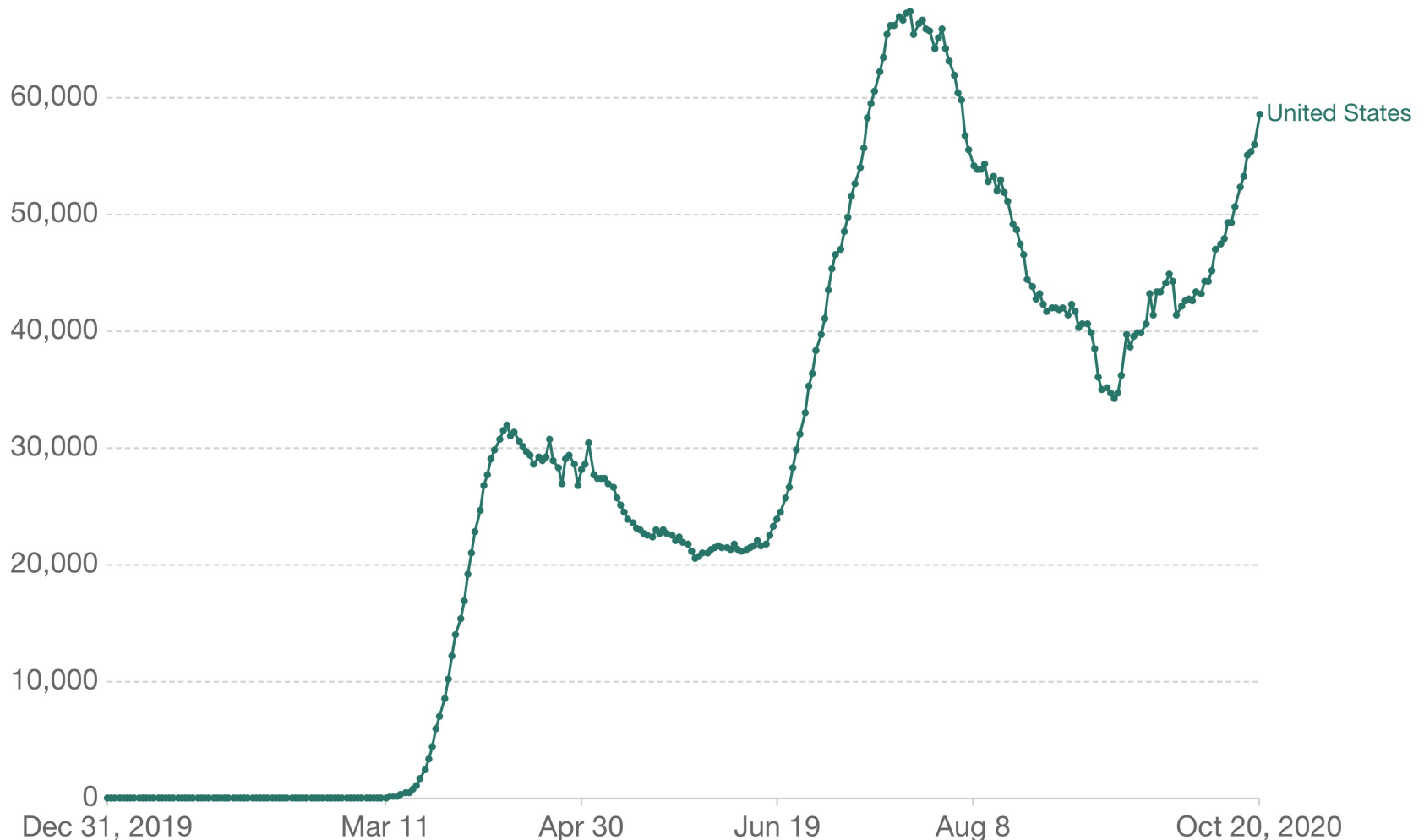
Coronavirus pandemic, November 23, 2020

#	Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop	Deaths/ 1M pop	Total Tests	Tests/ 1M pop	Population
	World	59,441,892	+450,647	1,400,741	+7,150	41,078,215	16,962,936	103,148	7,626	179.7			
1	USA	12,736,463	+136,150	263,479	+765	7,519,584	4,953,400	23,176	38,389	794	182,368,909	549,685	331,769,810
2	Brazil	6,087,608	+16,207	169,485	+288	5,432,505	485,618	8,318	28,559	795	21,900,000	102,742	213,155,868
3	India	9,177,641	+37,329	134,251	+478	8,603,463	439,927	8,944	6,625	97	132,582,730	95,704	1,385,345,349
4	Mexico	1,041,875	+9,187	101,676	+303	779,104	161,095	2,852	8,048	785	2,701,734	20,868	129,465,634
5	UK	1,527,495	+15,450	55,230	+206	N/A	N/A	1,421	22,454	812	41,316,814	607,359	68,027,042
6	Italy	1,431,795	+22,930	50,453	+630	584,493	796,849	3,810	23,695	835	20,537,521	339,876	60,426,437
7	France	2,144,660	+4,452	49,232	+500	152,592	1,942,836	4,454	32,828	754	20,024,871	306,515	65,330,803
8	Iran	866,821	+12,460	45,255	+453	610,406	211,160	5,812	10,269	536	5,828,307	69,044	84,414,847
9	Spain	1,606,905	+8,599	43,131	+170	N/A	N/A	2,922	34,363	922	21,917,246	468,698	46,761,974
10	Argentina	1,370,366		37,002		1,195,492	137,872	4,245	30,211	816	3,677,688	81,079	45,359,143
11	Russia	2,114,502	+25,173	36,540	+361	1,611,445	466,517	2,300	14,487	250	72,949,596	499,794	145,959,326
12	Peru	949,670		35,595		879,439	34,636	988	28,646	1,074	4,935,037	148,861	33,151,886
13	Colombia	1,254,979	+6,562	35,479	+192	1,158,897	60,603	2,376	24,561	694	6,082,745	119,045	51,096,204
14	South Africa	769,759	+2,080	20,968	+65	711,195	37,596	546	12,915	352	5,305,343	89,013	59,602,202
15	Indonesia	502,110	+4,442	16,002	+118	422,386	63,722		1,828	58	5,380,620	19,590	274,661,323
16	Belgium	558,779	+1,875	15,618	+96	35,949	507,212	1,194	48,131	1,345	5,687,407	489,889	11,609,588
17	Chile	542,080	+1,440	15,106	+37	517,524	9,450	704	28,261	788	5,095,476	265,654	19,180,879
18	Germany	946,648	+14,537	14,583	+240	618,800	313,265	3,742	11,284	174	26,456,866	315,375	83,890,107
19	Poland	876,333	+15,002	13,774	+156	438,868	423,691	2,149	23,165	364	5,971,590	157,853	37,830,117
20	Ecuador	185,944	+301	13,225	+24	164,009	8,710	365	10,477	745	622,833	35,093	17,747,925

New cases (linear), United States, 10/20/2020

Daily new confirmed COVID-19 cases

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Source: European CDC – Situation Update Worldwide – Last updated 20 October, 10:35 (London time)

CC BY

New cases (linear), United States, 11/23/2020

Daily new confirmed COVID-19 cases

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

Our World
in Data



Source: European CDC – Situation Update Worldwide – Last updated 23 November, 10:06 (London time)

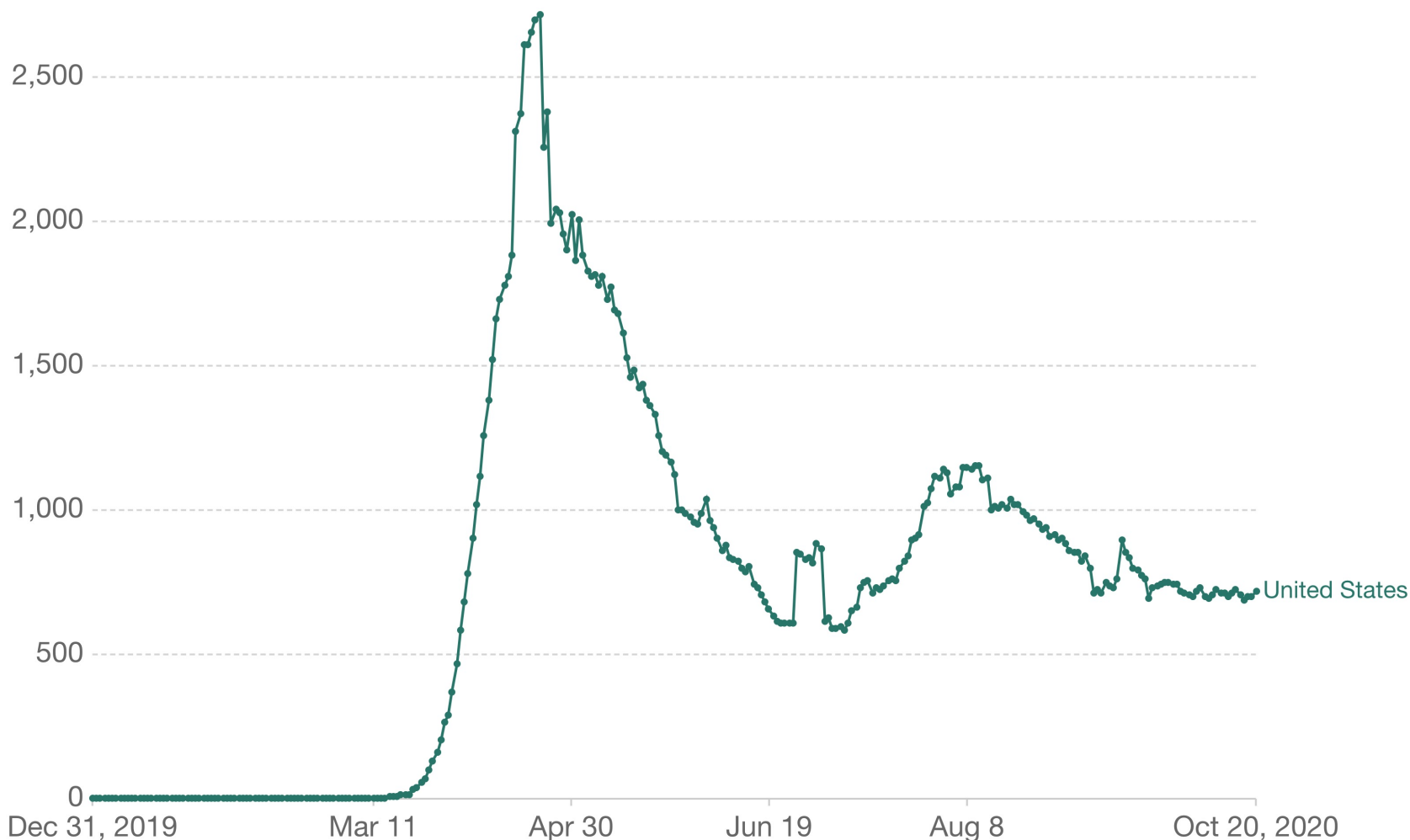
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New deaths (linear), United States, 10/20/2020

Daily new confirmed COVID-19 deaths

Our World
in Data

Shown is the rolling 7-day average. Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.



Source: European CDC – Situation Update Worldwide – Last updated 20 October, 10:35 (London time)

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New deaths (linear), United States, 11/23/2020

Daily new confirmed COVID-19 deaths

Our World
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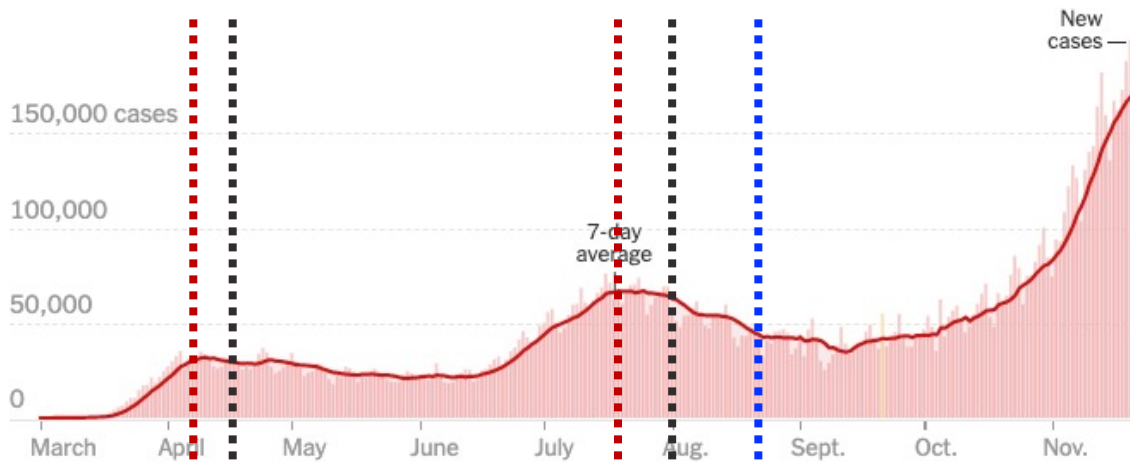


Source: European CDC – Situation Update Worldwide – Last updated 23 November, 10:06 (London time)

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11/23/2020

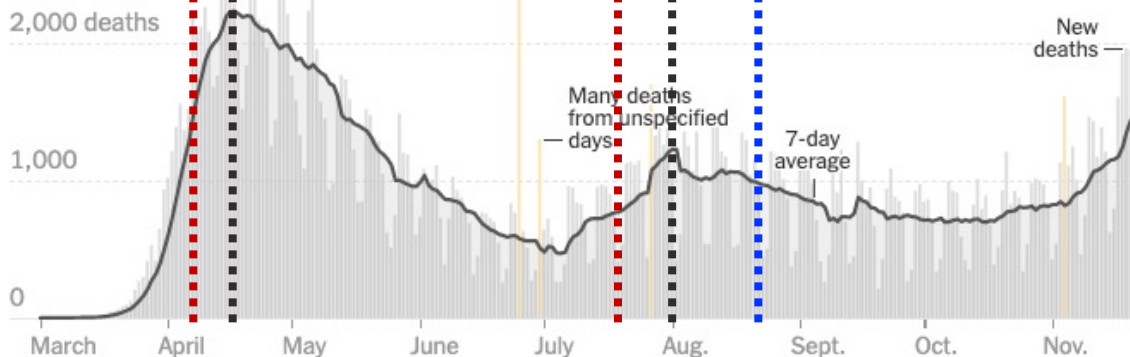
New reported cases by day in the United States



These are days with a data reporting anomaly. Read more [here](#).

Note: The seven-day average is the average of a day and the previous six days of data.

New reported deaths by day in the United States



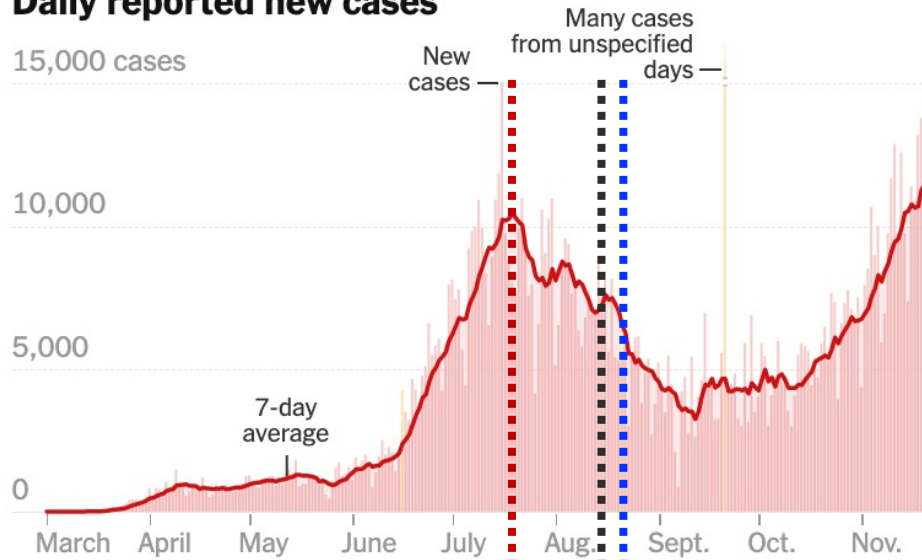
These are days with a data reporting anomaly. Read more [here](#).

Aug. 20
(1st class day)



Texas, 11/23/2020

Daily reported new cases



Daily reported deaths



■ These are days with a data reporting anomaly. Read more [here](#).

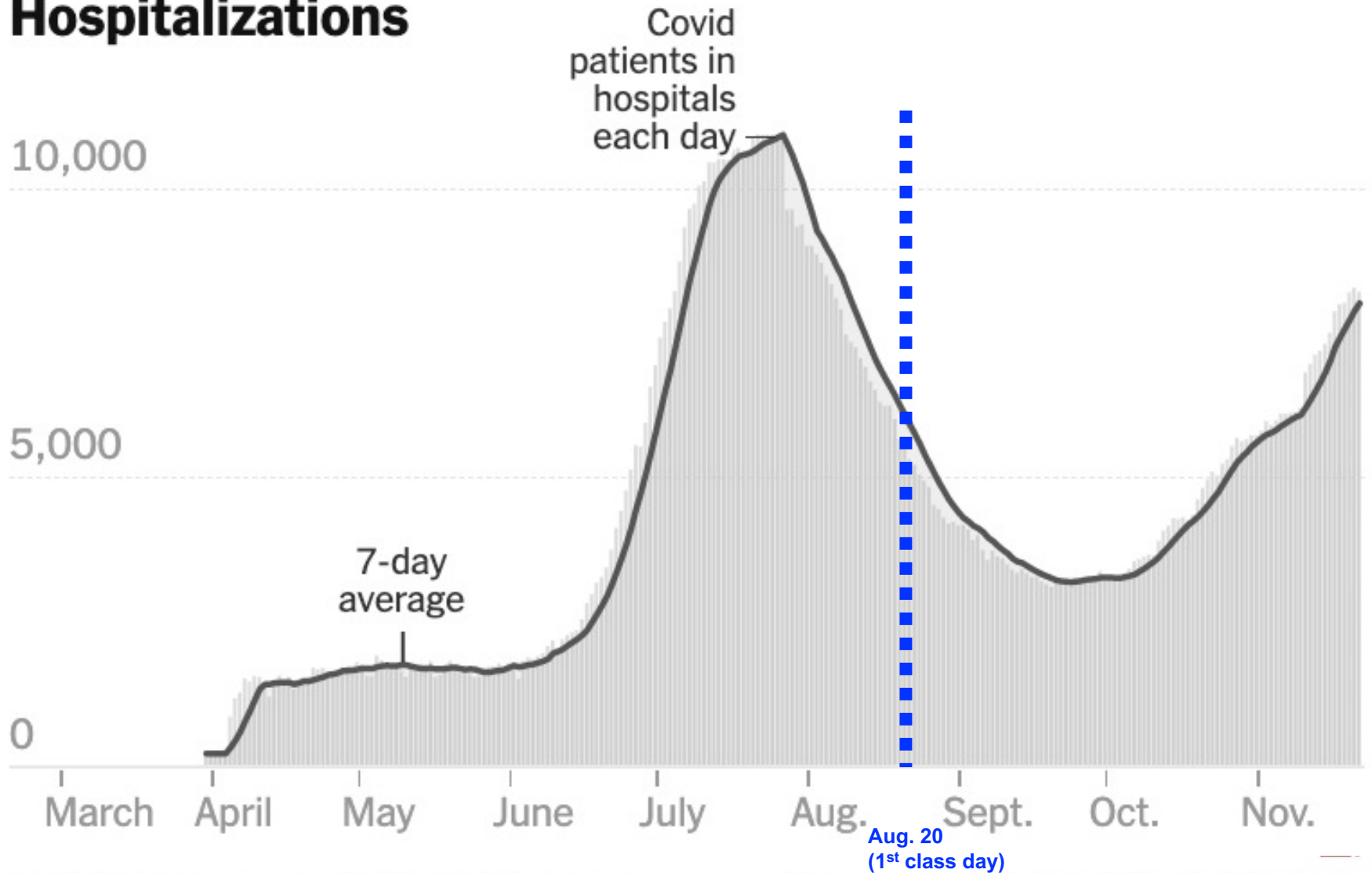
Aug. 20
(1st class day)

Note: The seven-day average is the average of a day and the previous six days of data.



Texas,
11/23/2020

Hospitalizations

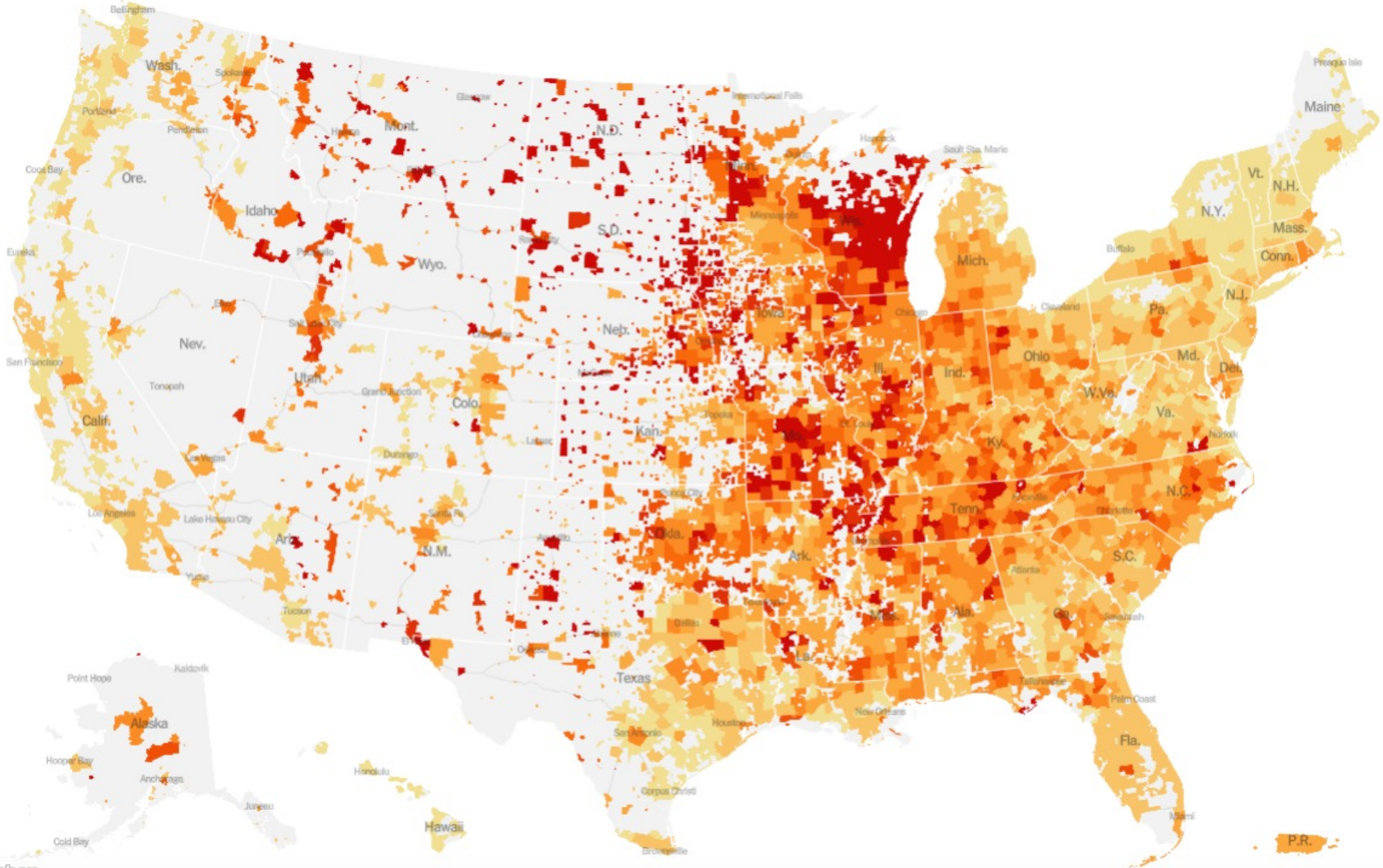


10/21/2020

Average daily cases per 100,000 people in past week



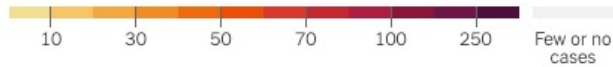
Double-click to zoom into the map.



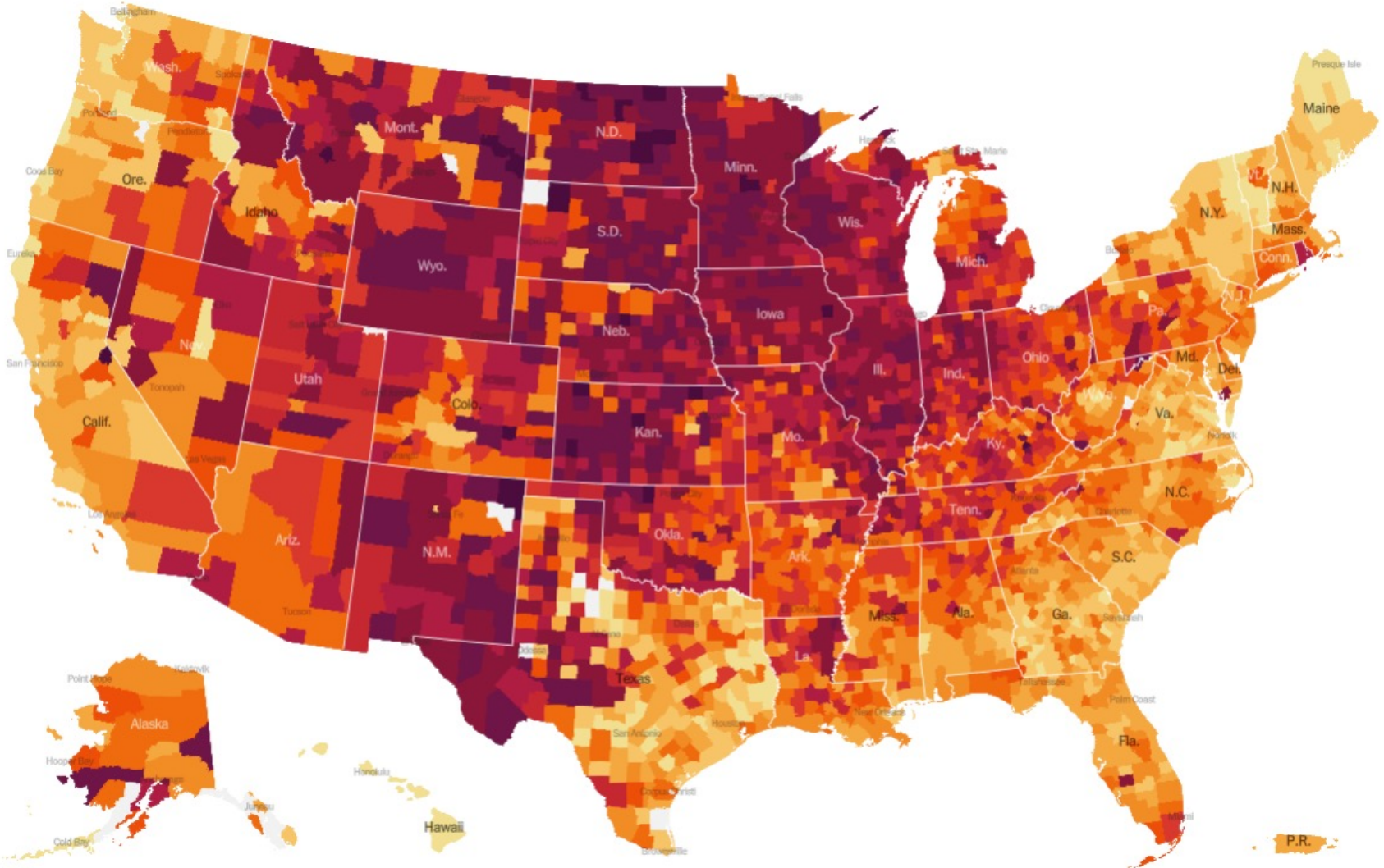
Source: <https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html>.

11/23/2020

Average daily cases per 100,000 people in past week



Double-click to zoom into the map.

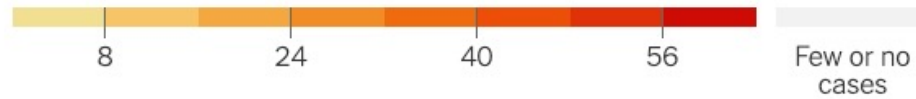


mapbox

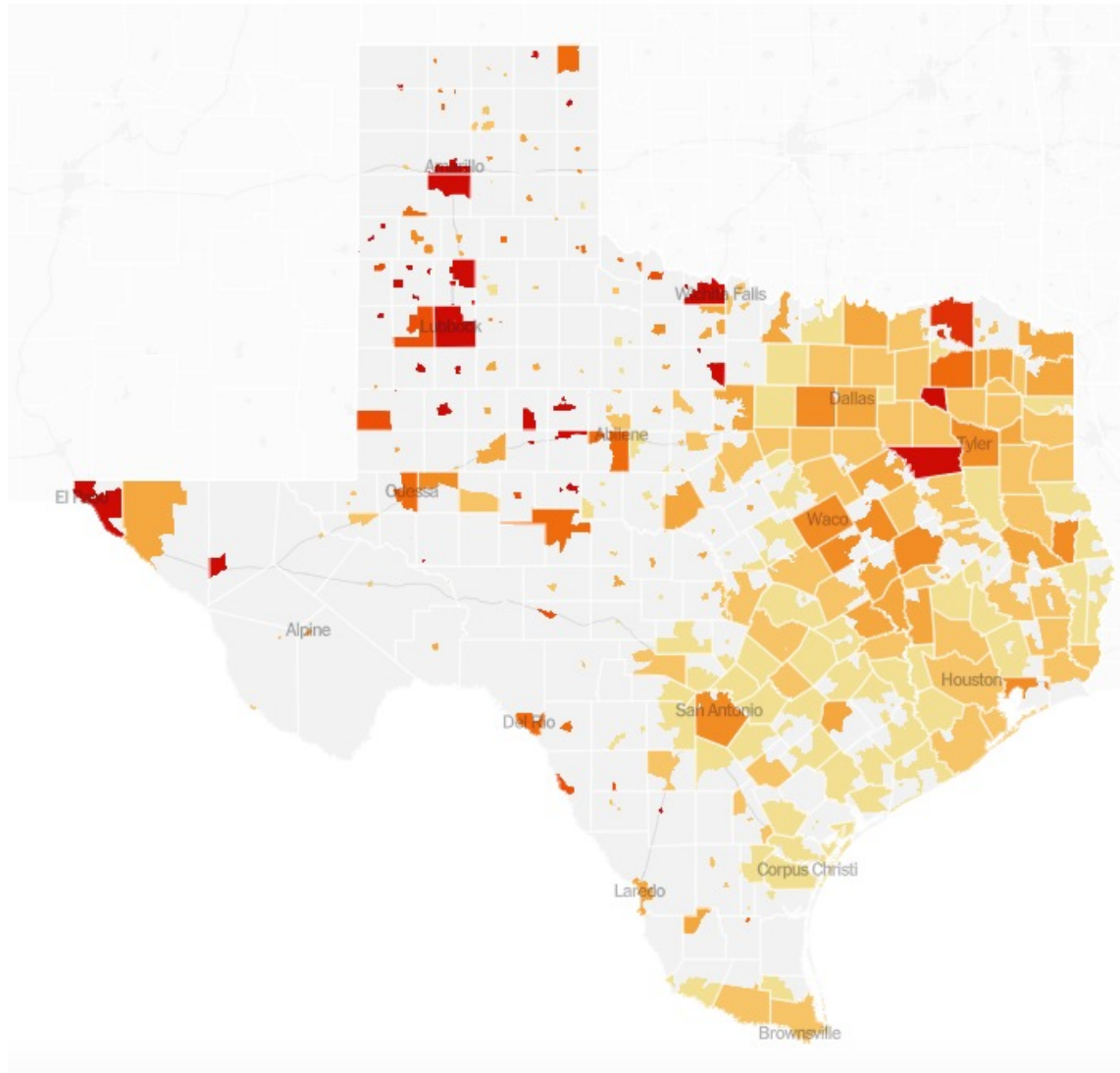
Source: <https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html>.

10/21/2020

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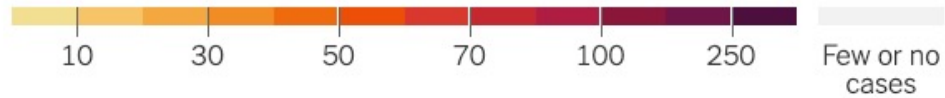


Double-click to zoom into the map.

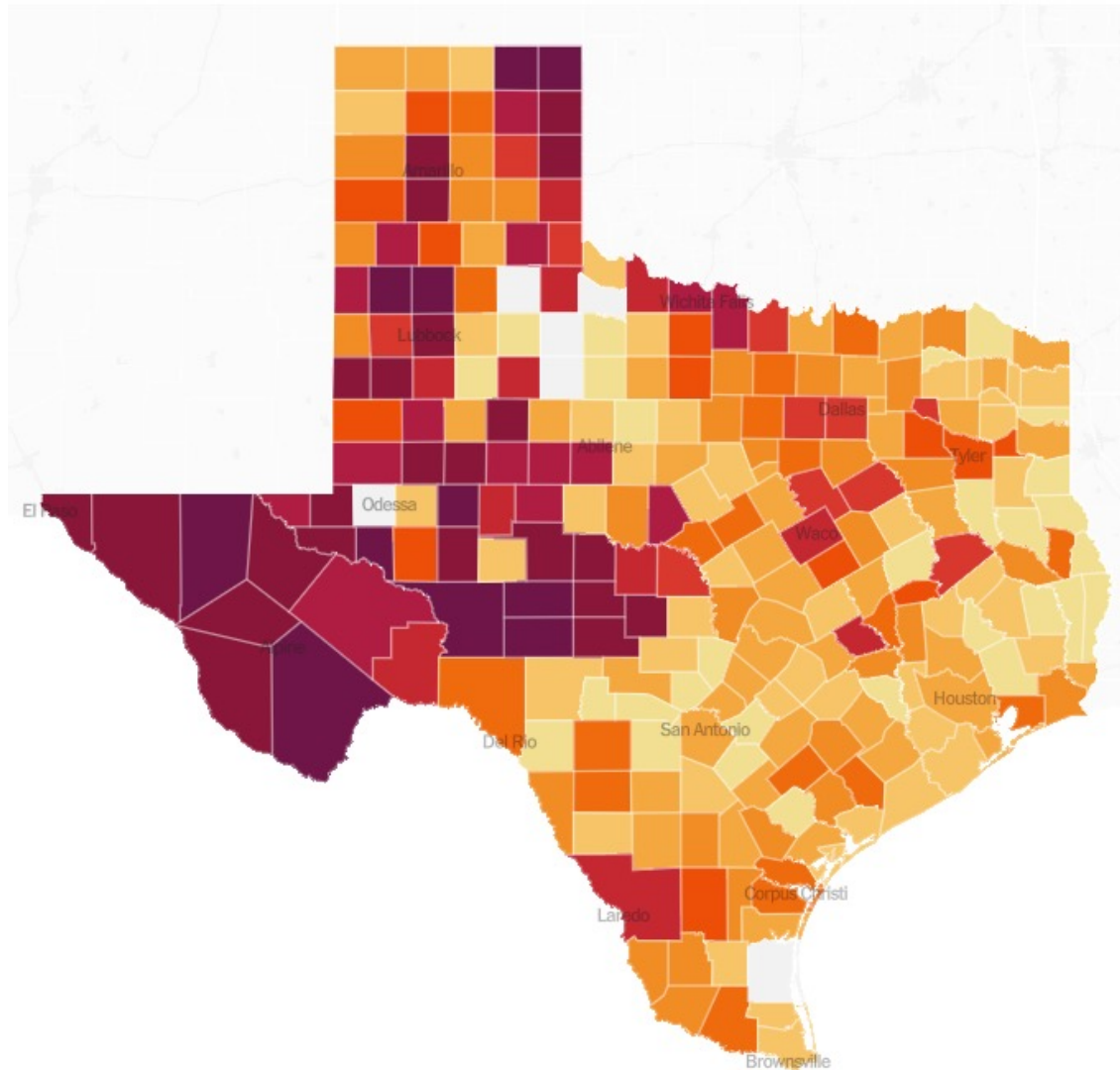


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Average daily cases per 100,000 people in past week



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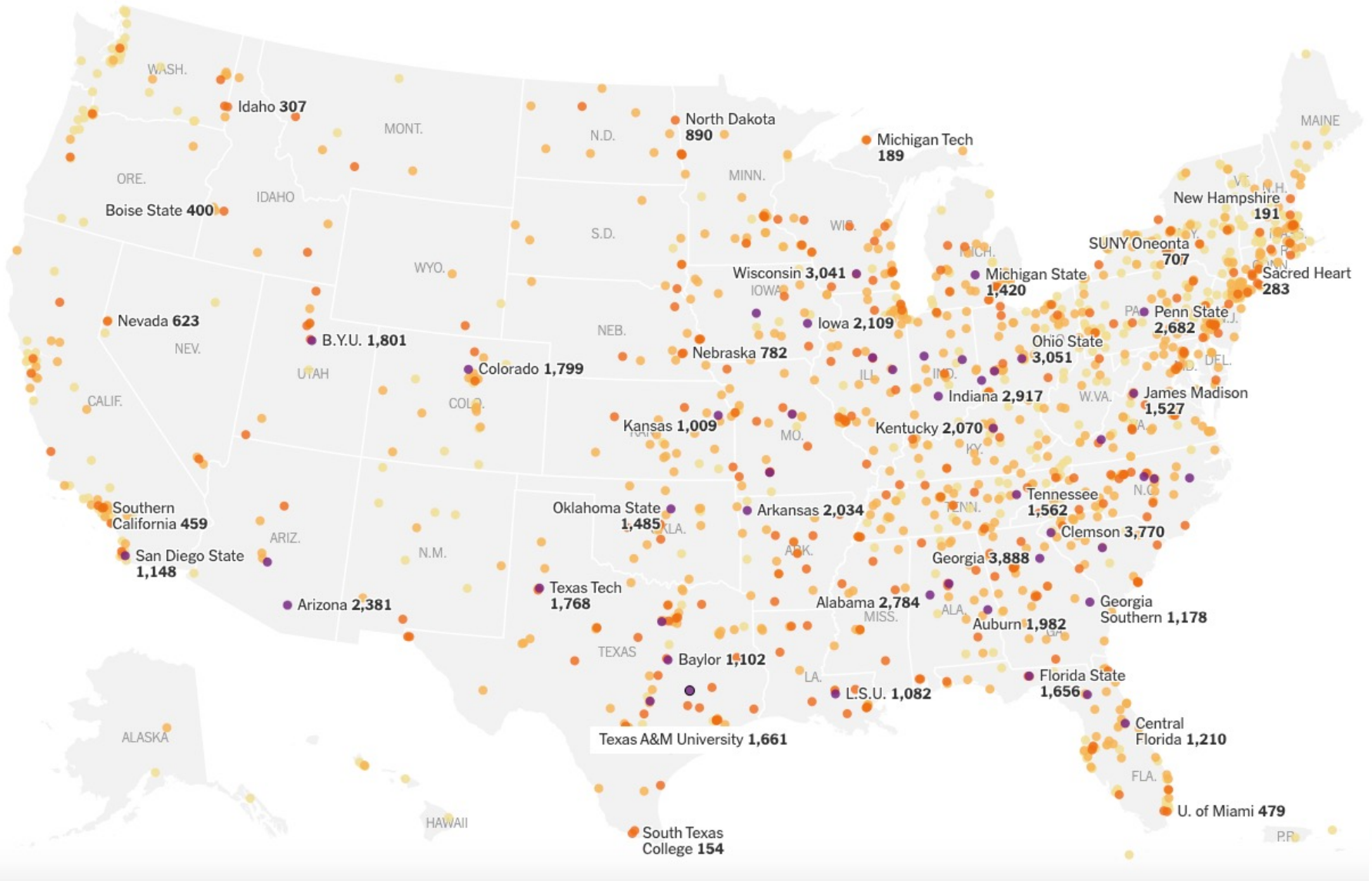


10/21/2020

Colleges with coronavirus cases since the pandemic began

- 1,000 or more cases
- 100-999 cases
- 10-99 cases
- Fewer than 10 cases

Double-click to zoom into the map. Drag to pan.

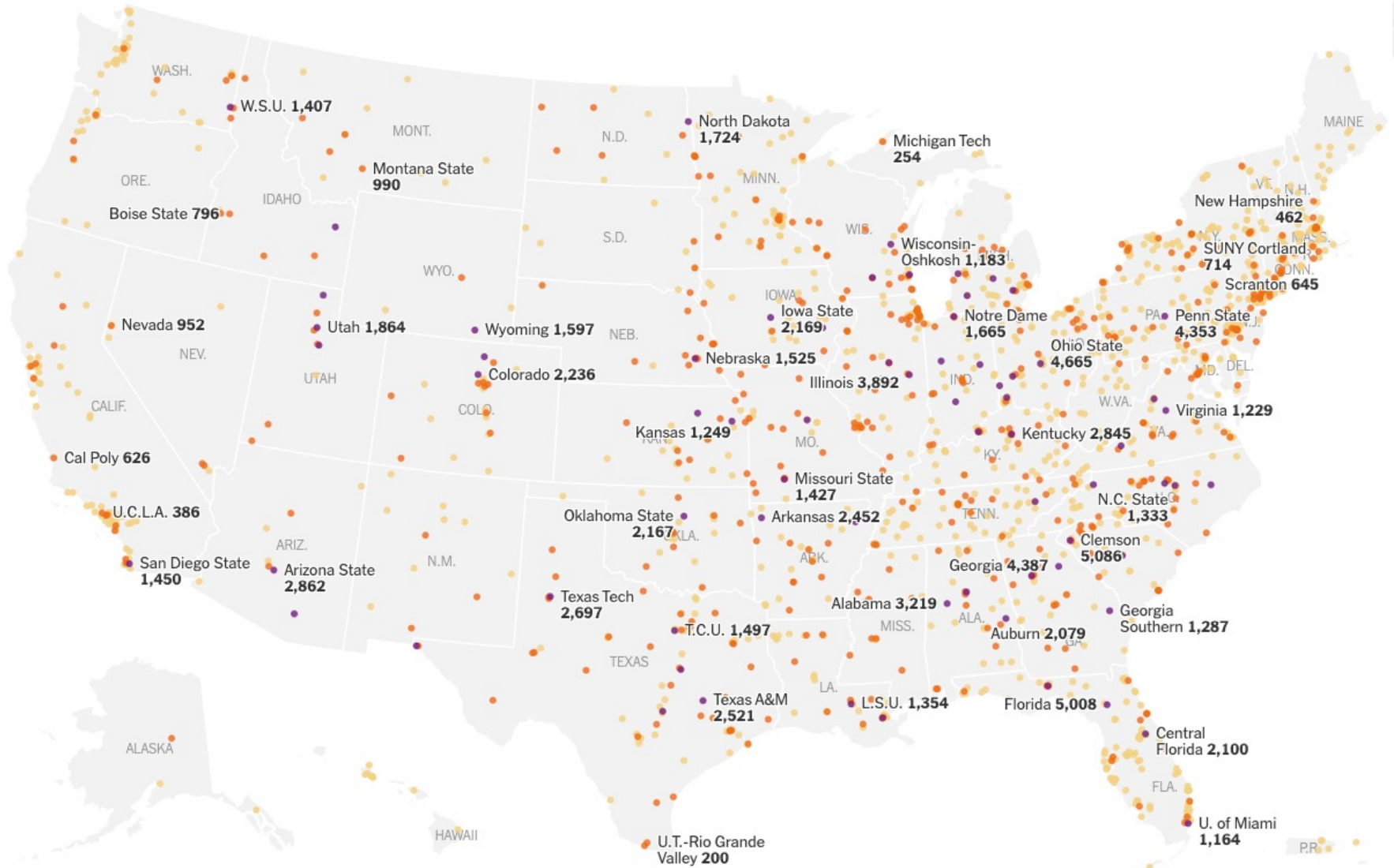


11/23/2020

Colleges with coronavirus cases since the pandemic began

● 1,000 or more cases ● 100-999 ● Fewer than 100

Double-click to zoom into the map. Drag to pan.



References

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