

14,30-16,30

**LA GESTIONE DEL DIABETE IN MEDICINA GENERALE
NUOVE PROSPETTIVE PER UNA VECCHIA PATOLOGIA**

ECM 247-202214

Crediti Assegnati 1,4

Moderatore: **Andrea Pizzini**

14,30-15,00

Una vecchia patologia: il diabete mellito – **Francesco Losurdo**

15,00-15,30

Il nuovo modo di affrontare le patologie croniche – Il progetto europeo
JA-CHRODIS – **Andrea Pizzini**

15,30-16,10

I nuovi farmaci per la cura del diabete – **Francesco Losurdo**

16,10-16,20

Il nuovo programma di follow up del paziente con diabete
– **Stefano Ivis**

16,20-16,30

Discussione

Post test



Il nuovo modo di affrontare le patologie croniche Il progetto europeo JA-CHRODIS

Andrea Pizzini

DALLA PRESTAZIONE ALLA PERFORMANCE

74° Congresso Nazionale

2-7 ottobre 2017

SEBAST. PISSINII

Lucensis Medici atq; Patritij

DE DIABETE

DISSERTATIO

In qua eius natura accuratè describitur, & plurima ràm ad eiusdem cognitionem, quam curationem spectantia, non dum satis animadvertèa discutuntur.

ACCESIT EIPSEDEM EPISTOLÆ
DE CORDIS POLYPO

Ad Carolum Adrianum Med. ac Phil. præfatus.

EM.^{MO} ac R.^{MO} PRINCIPI

1580-1655

S. R. E. CARD. AMPLISS.



MEDIOLANI,

Apud Impressores Archiepiscopales. M. DC. LIV.

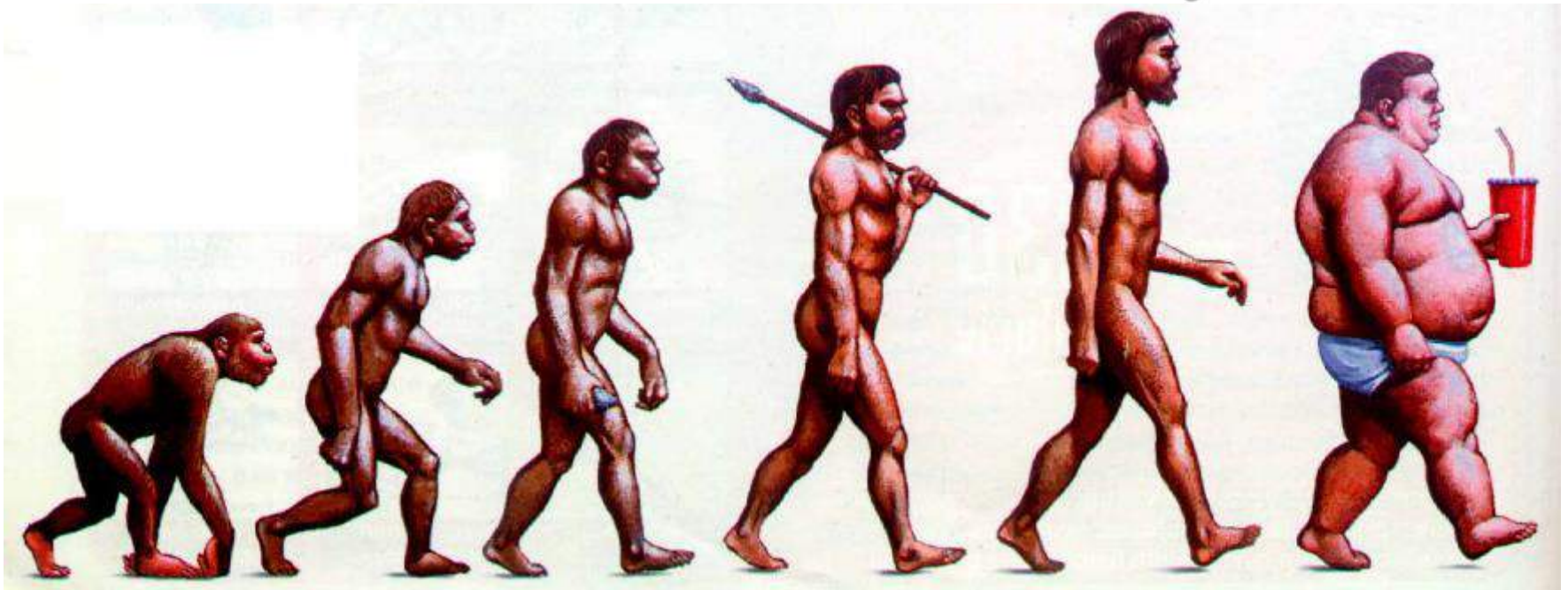
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...Dissertatio...

SPECIAL REPORT

A Potential Decline in Life Expectancy in the United States in the 21st Century

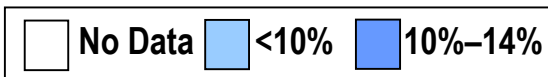
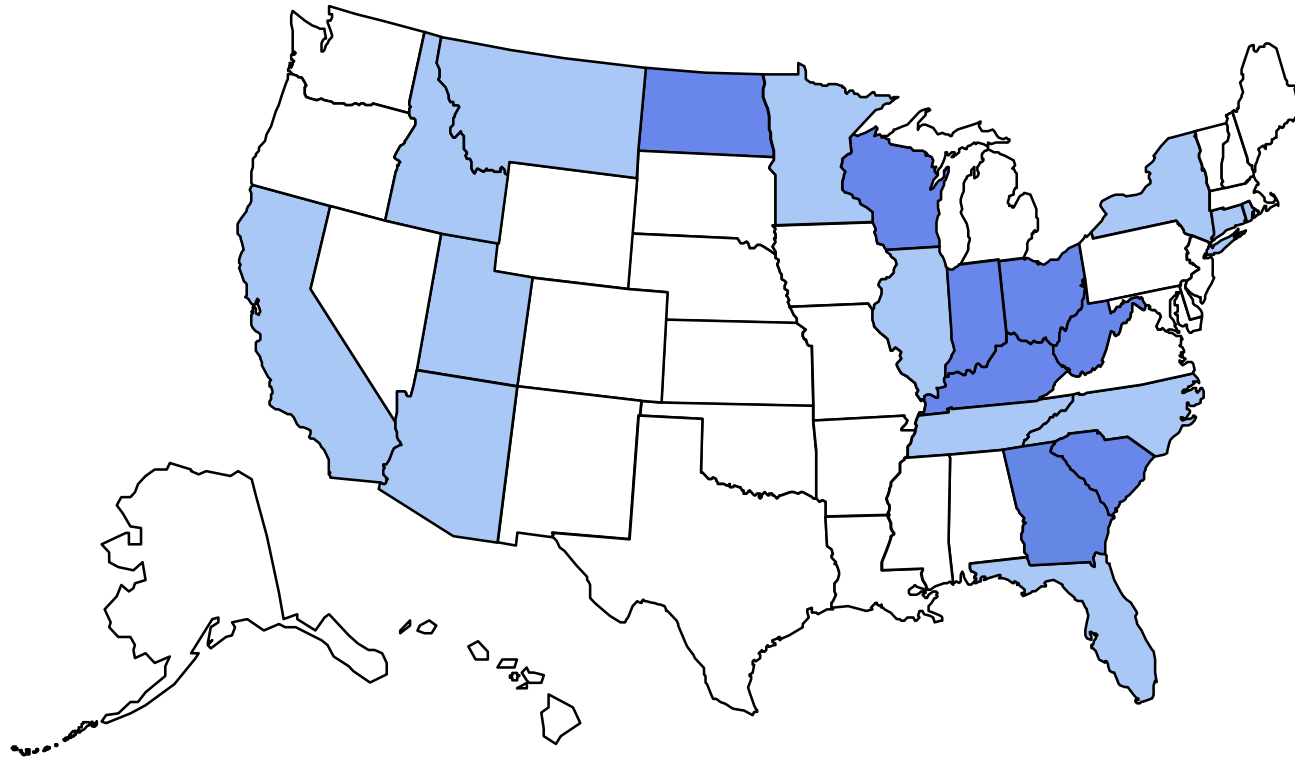
S. Jay Olshansky, Ph.D., Douglas J. Passaro, M.D., Ronald C. Hershow, M.D.,
Jennifer Layden, M.P.H., Bruce A. Carnes, Ph.D., Jacob Brody, M.D., Leonard Hayflick, Ph.D.,
Robert N. Butler, M.D., David B. Allison, Ph.D., and David S. Ludwig, M.D., Ph.D.



Obesity Trends* Among U.S. Adults

BRFSS, 1985

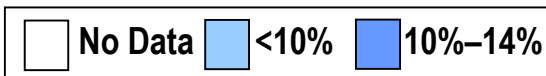
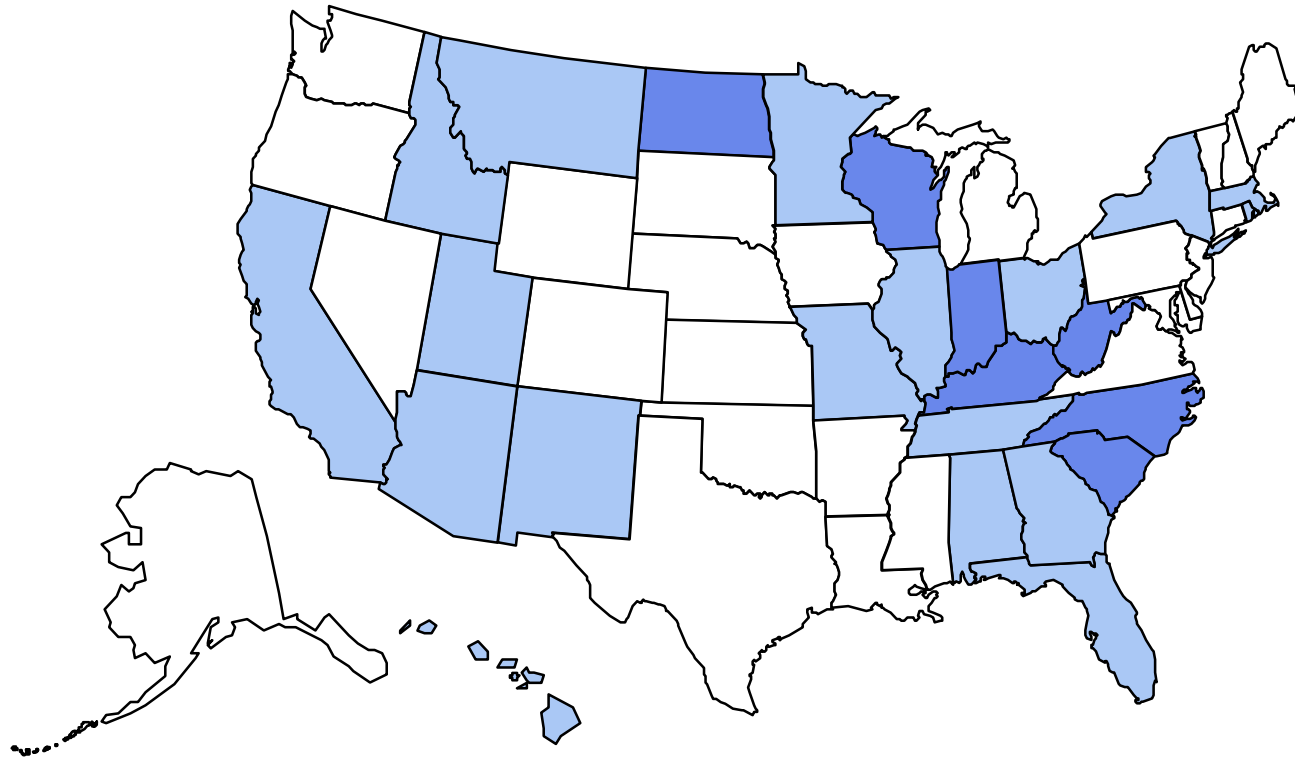
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Obesity Trends* Among U.S. Adults

BRFSS, 1986

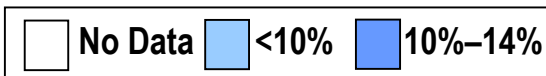
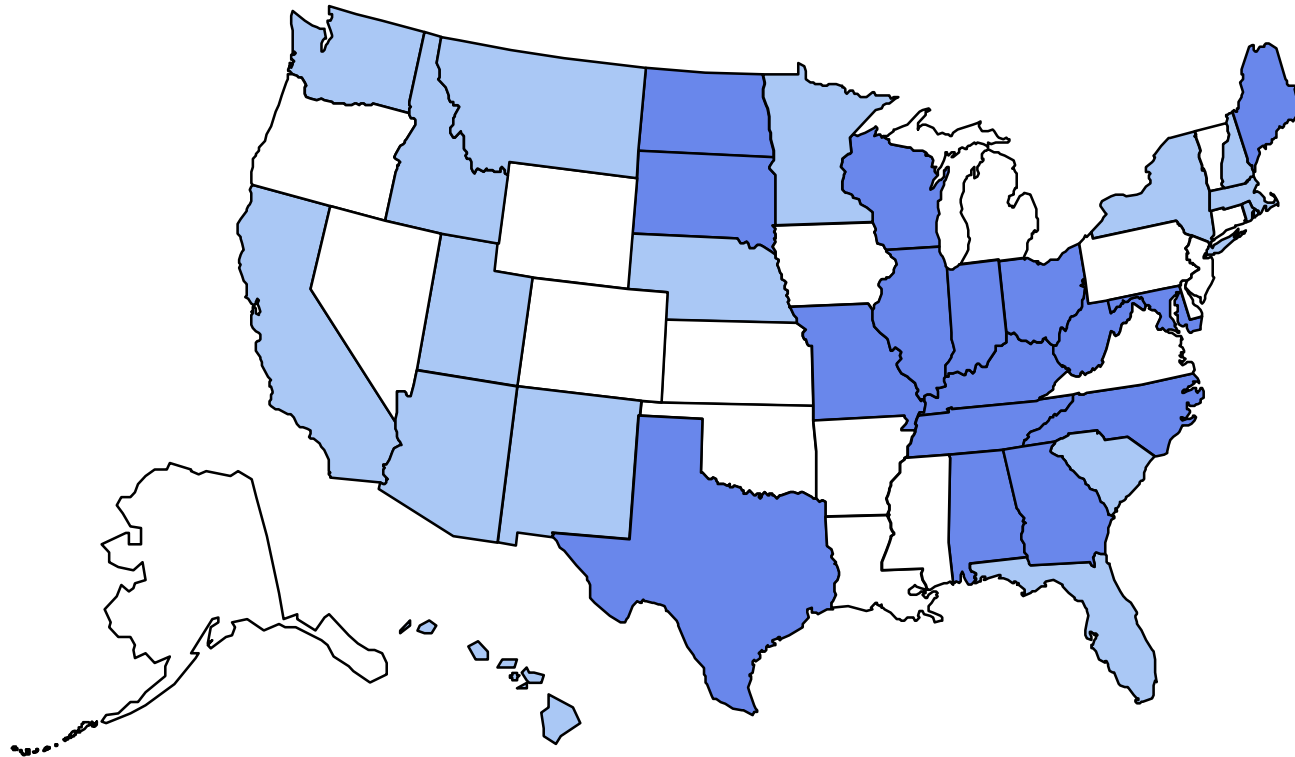
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Obesity Trends* Among U.S. Adults

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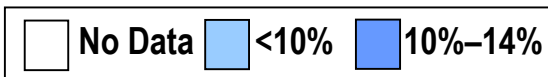
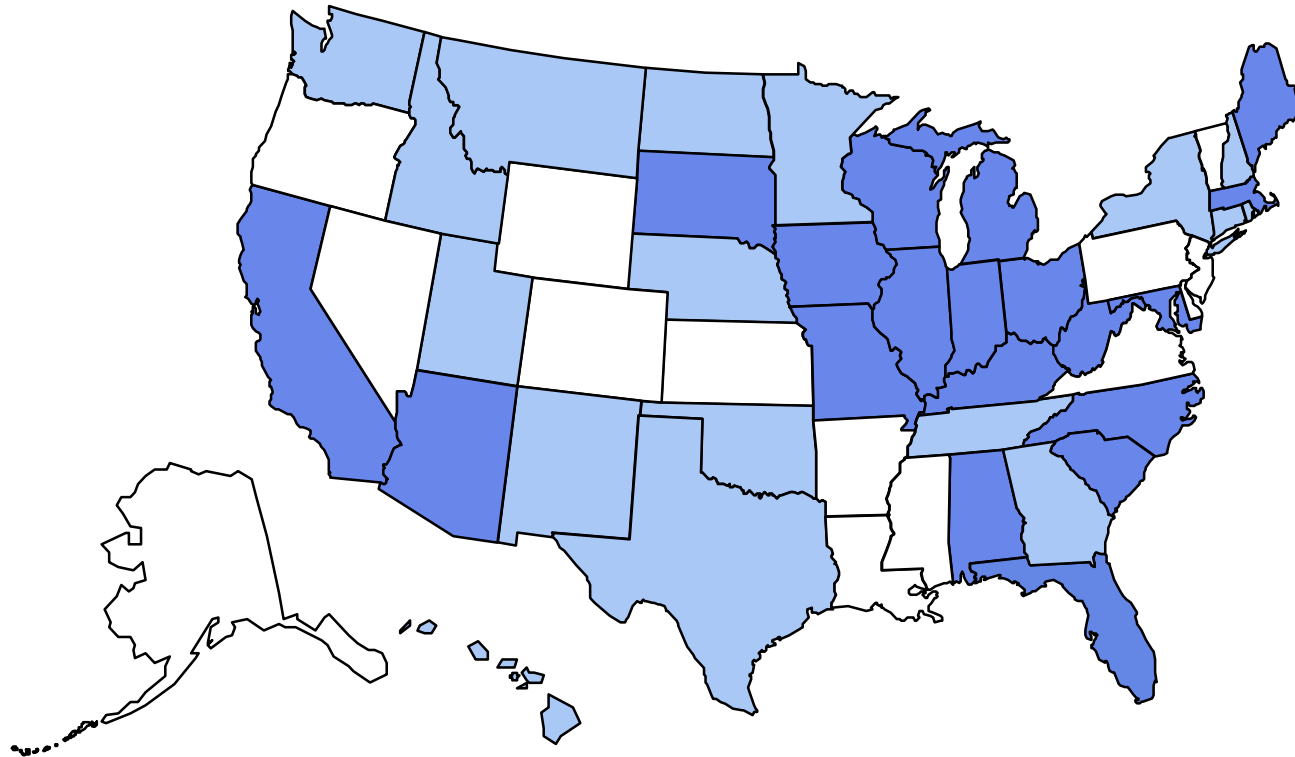
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Obesity Trends* Among U.S. Adults

BRFSS, 1988

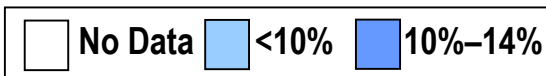
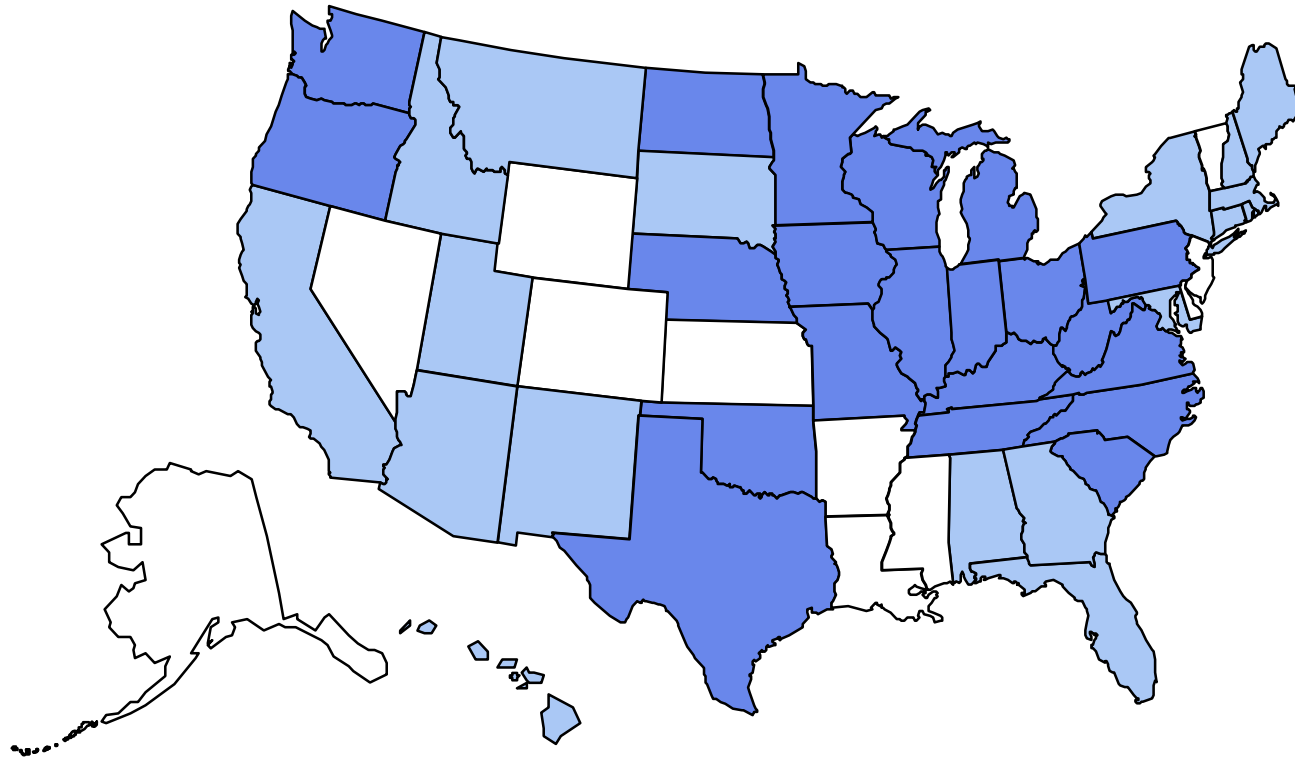
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Obesity Trends* Among U.S. Adults

BRFSS, 1989

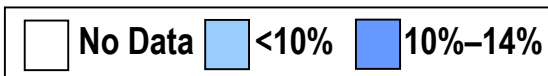
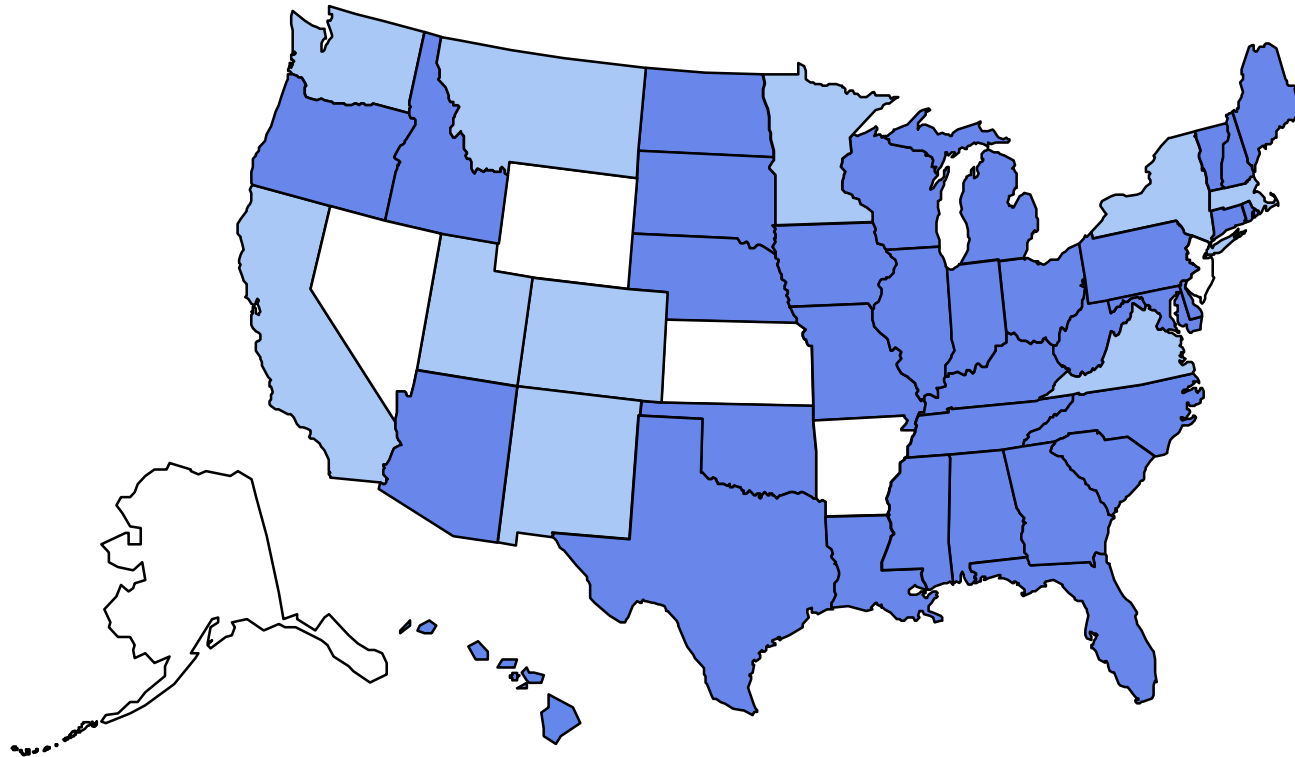
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Obesity Trends* Among U.S. Adults

BRFSS, 1990

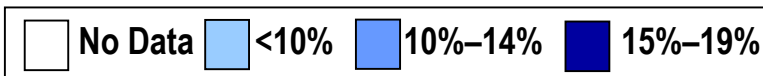
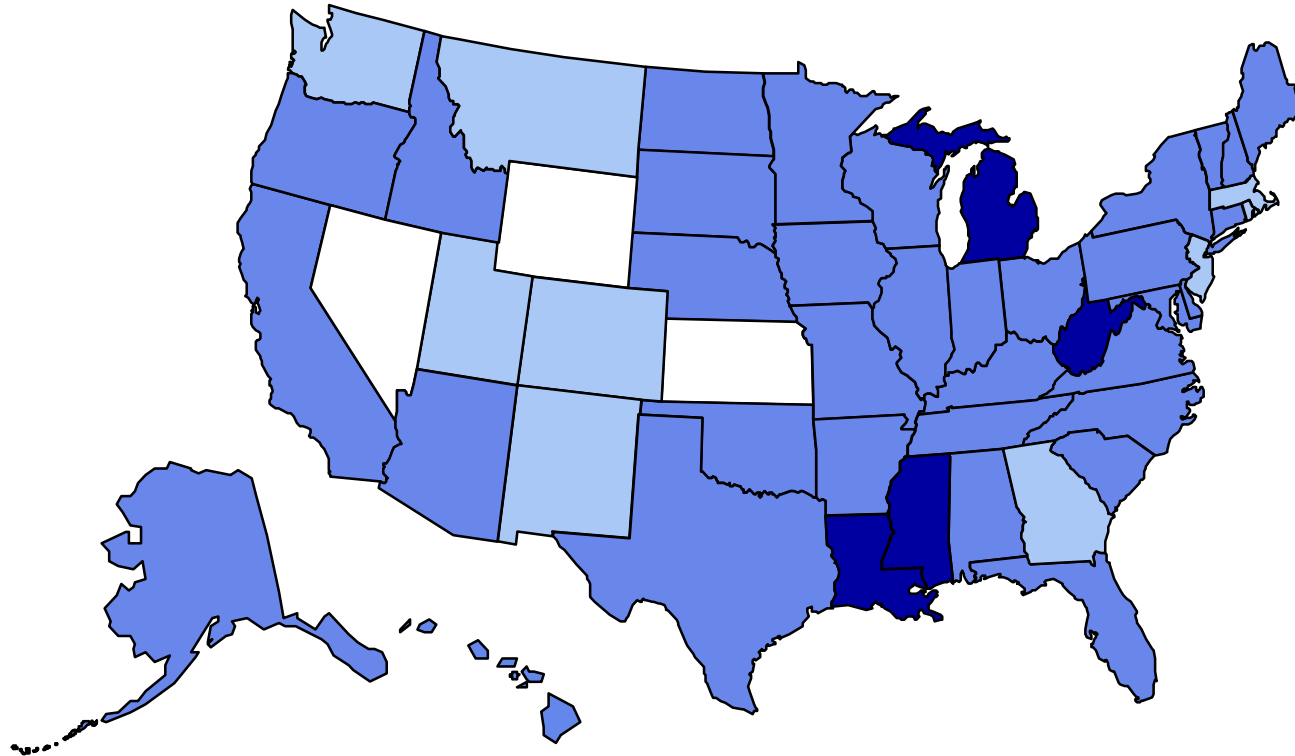
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Obesity Trends* Among U.S. Adults

BRFSS, 1991

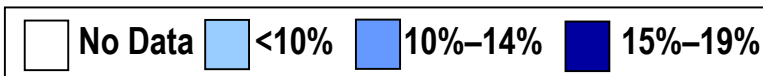
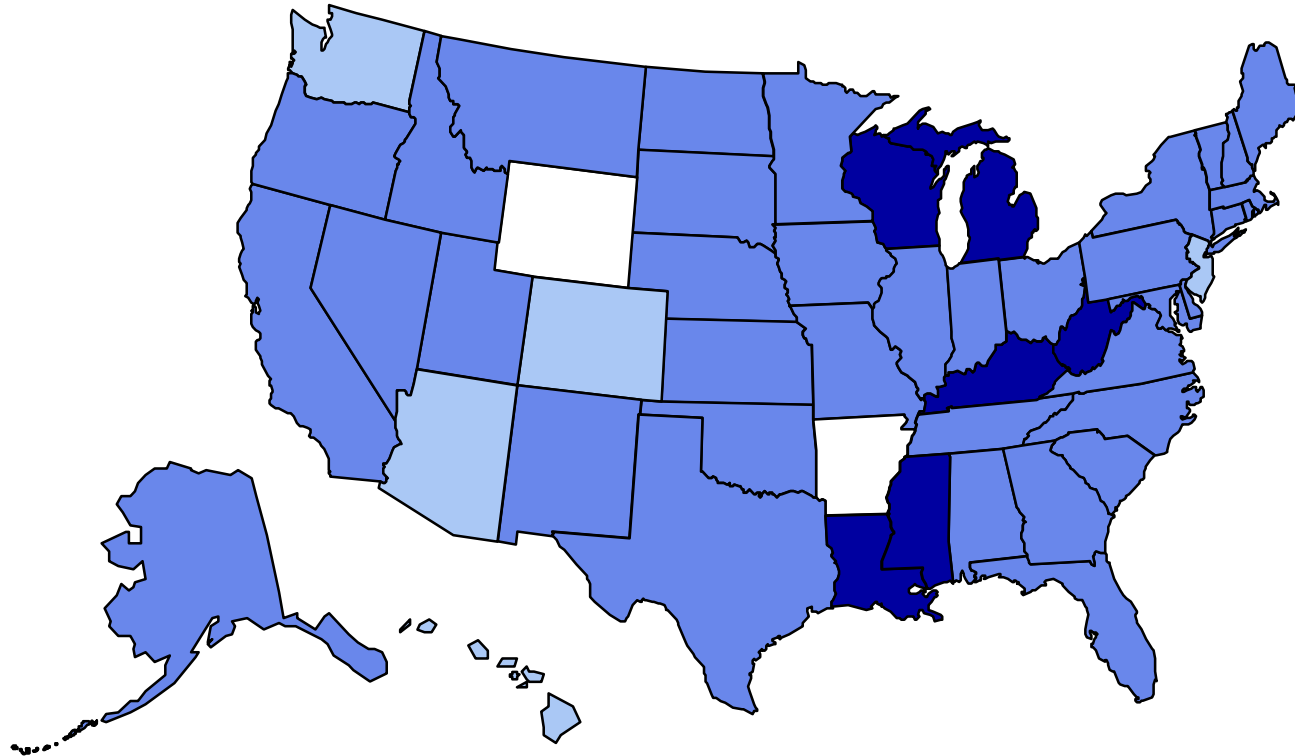
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1992

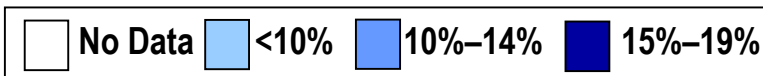
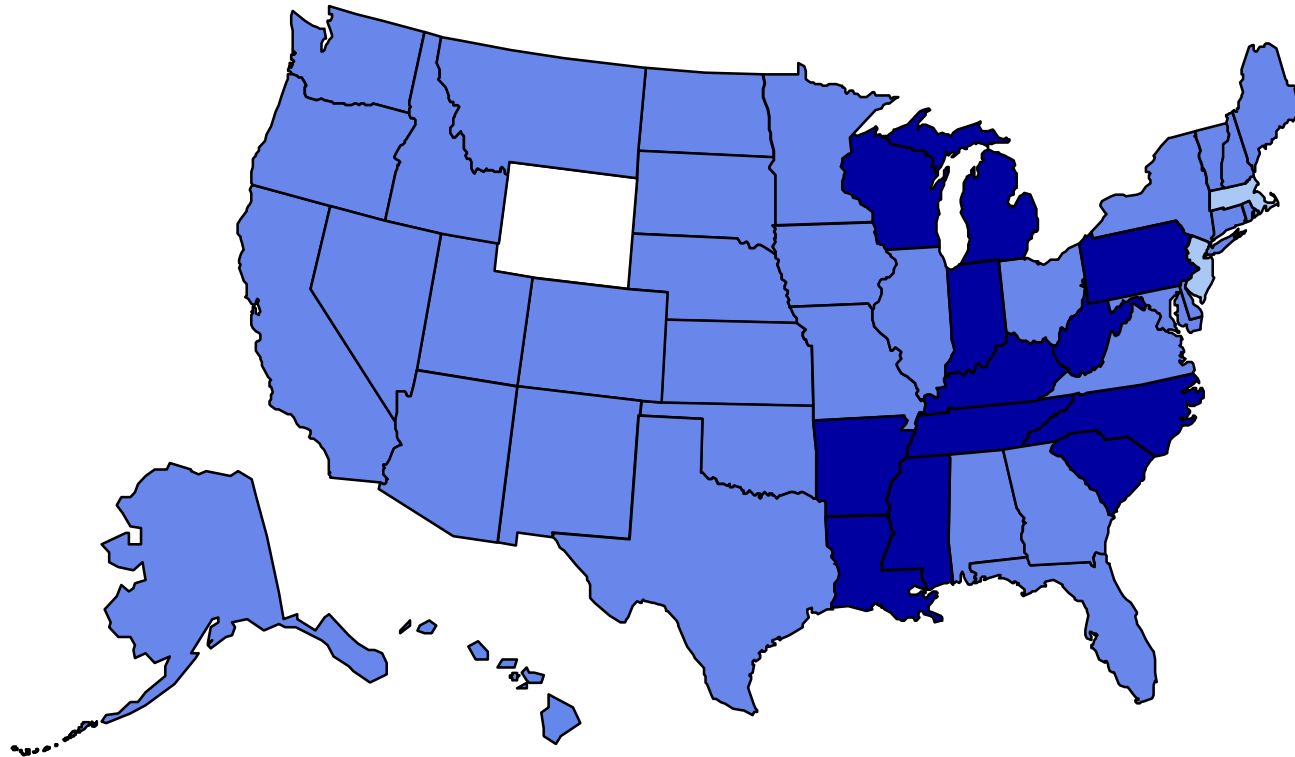
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1993

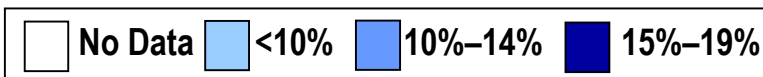
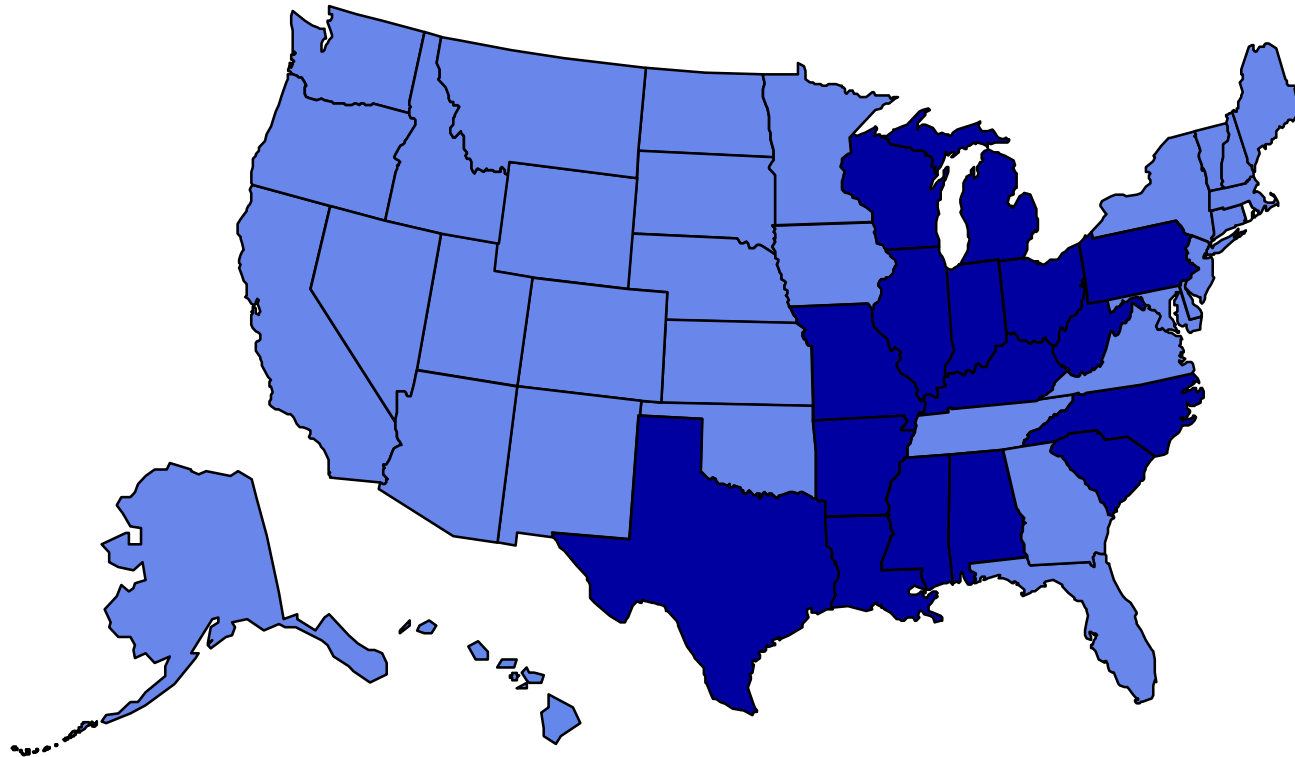
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1994

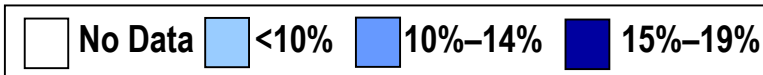
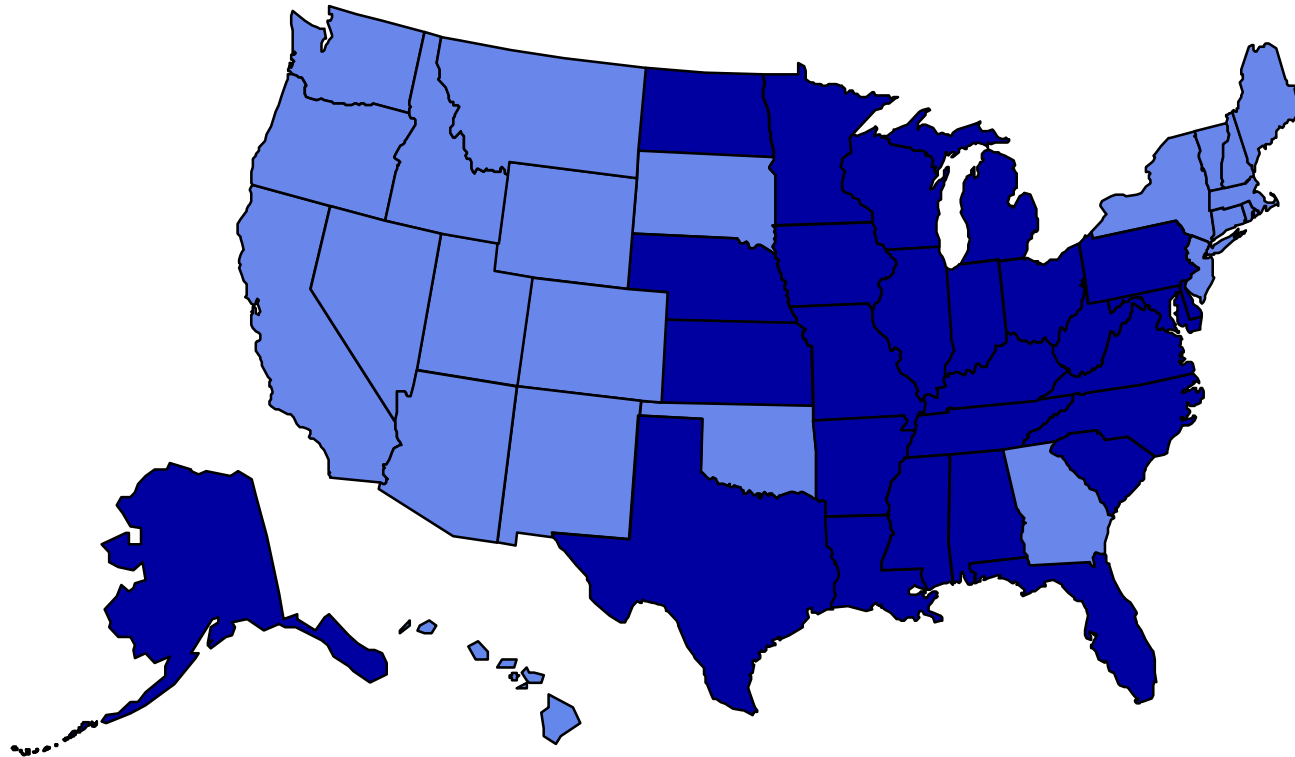
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1995

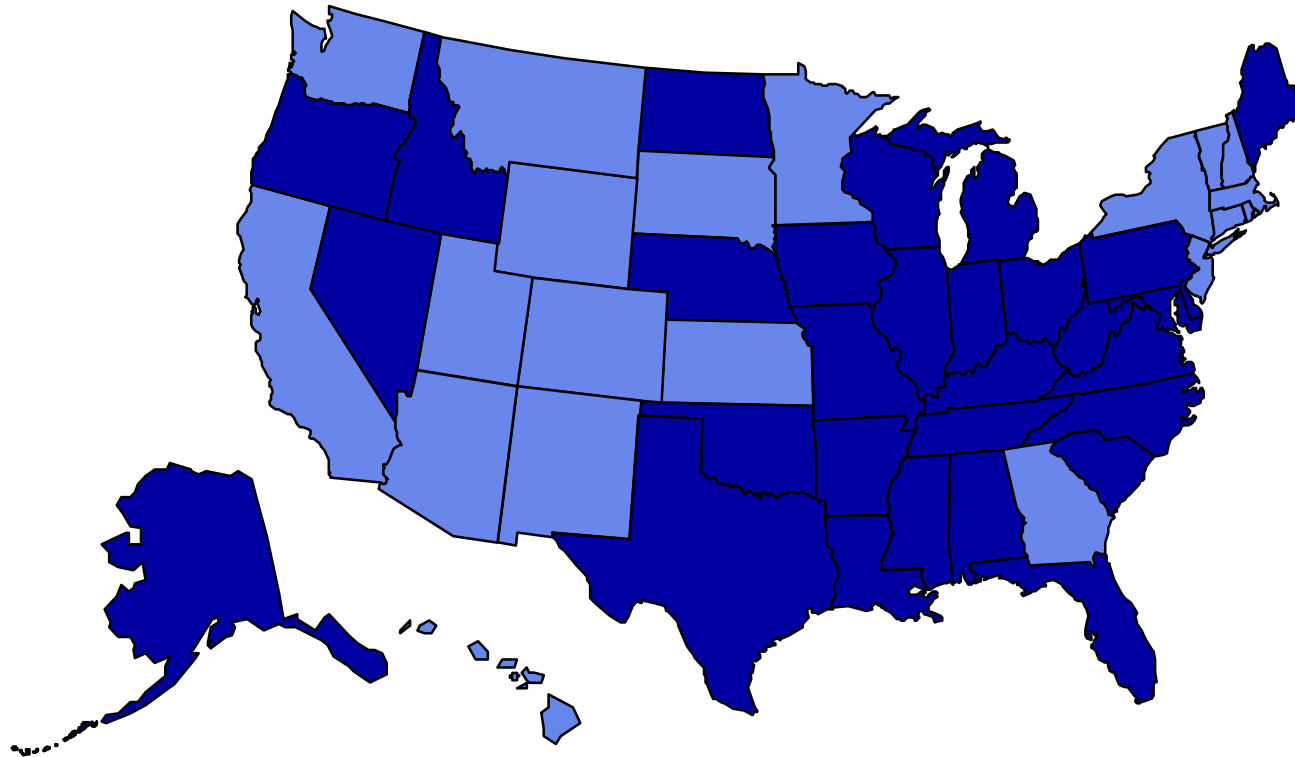
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1996

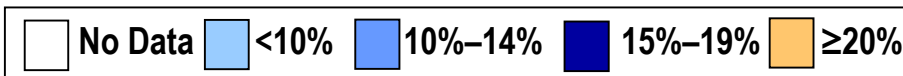
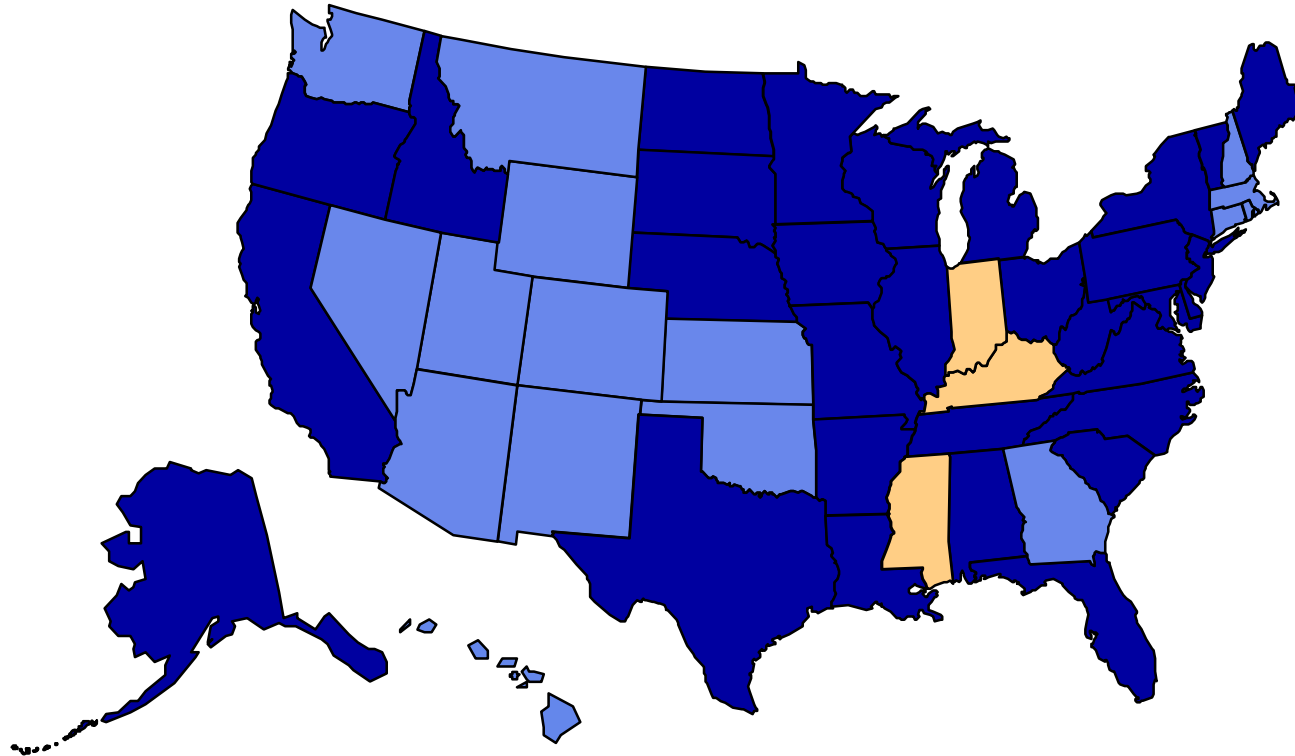
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1997

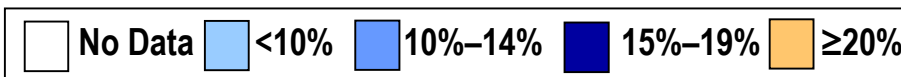
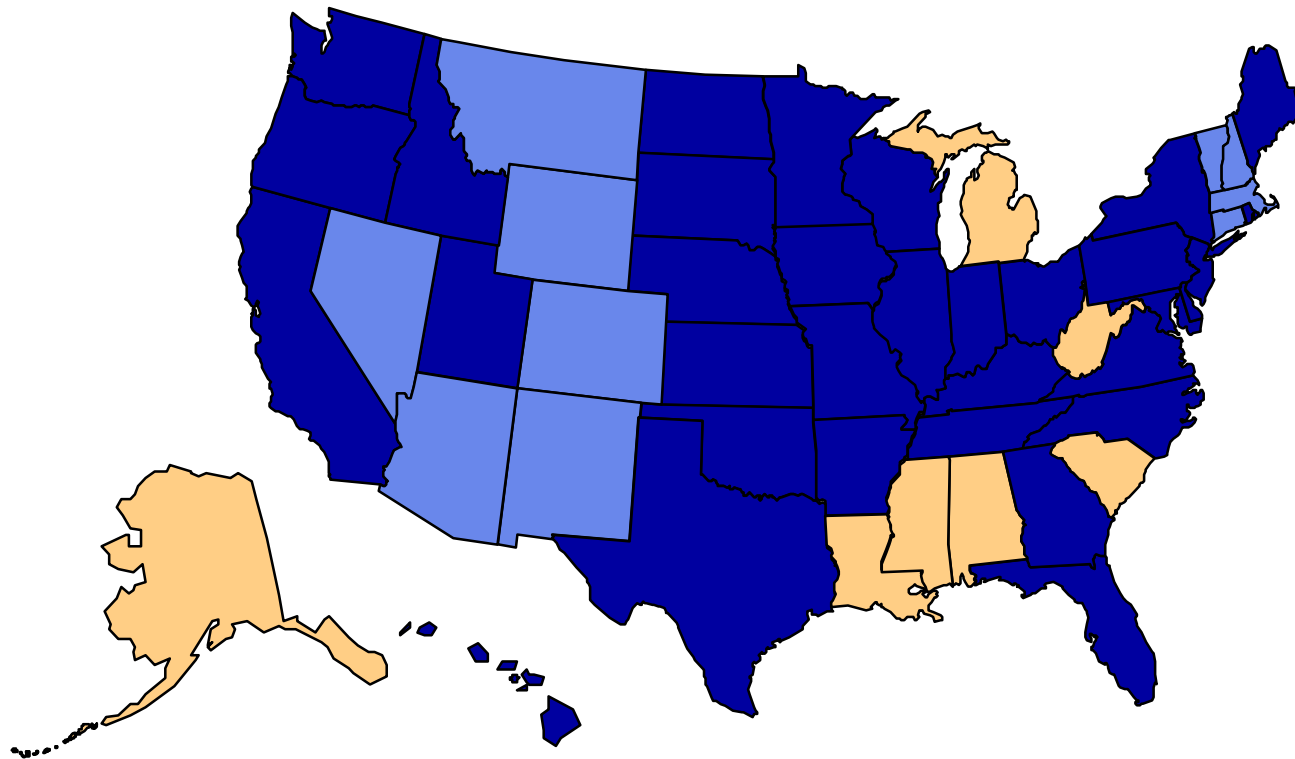
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1998

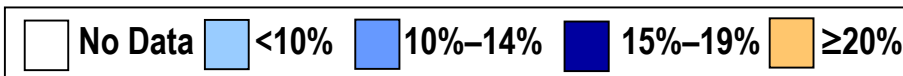
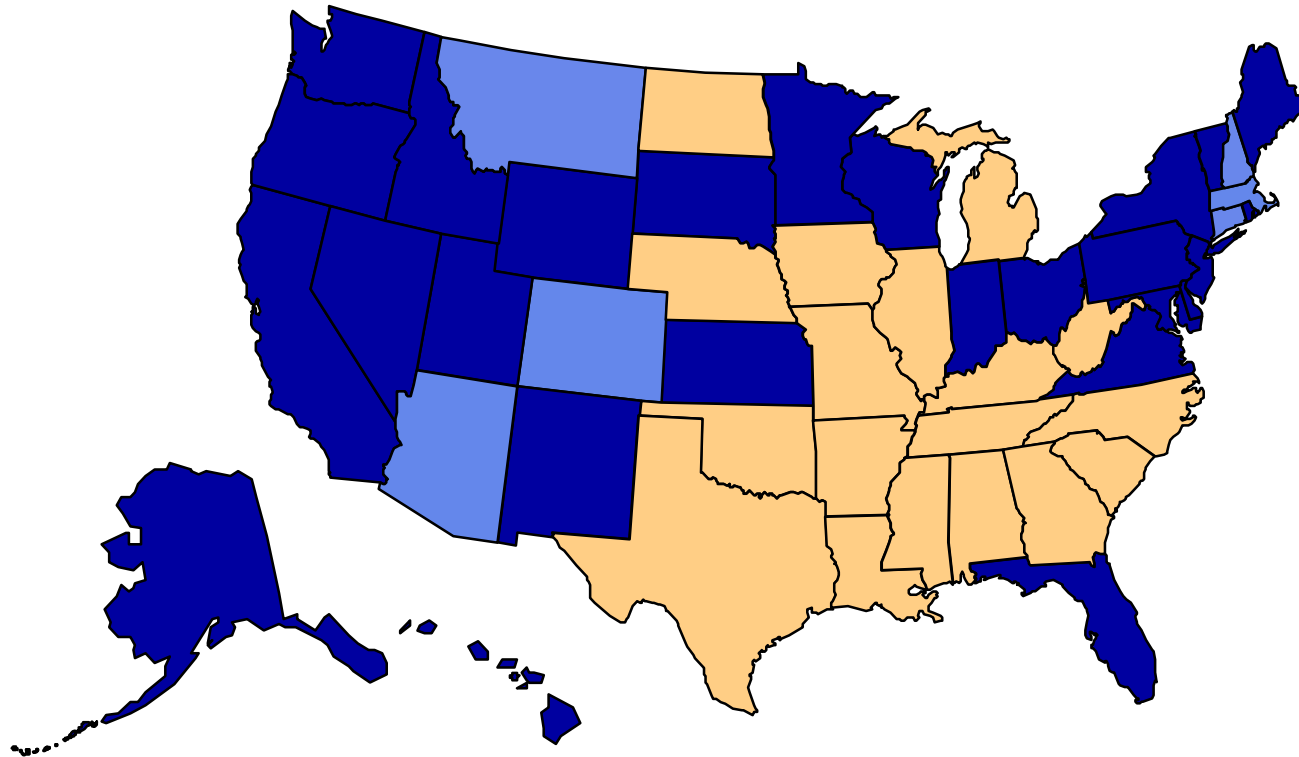
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 1999

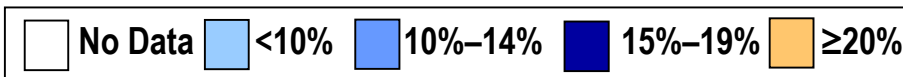
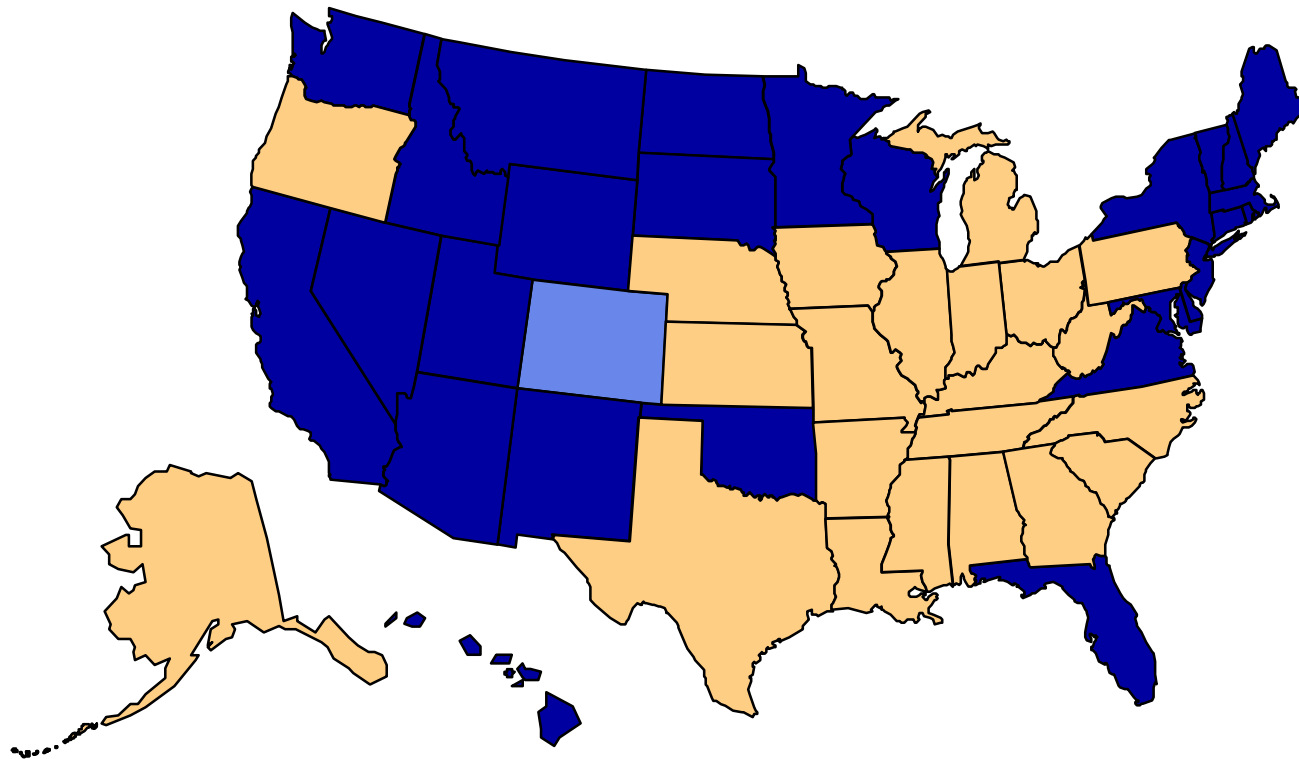
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2000

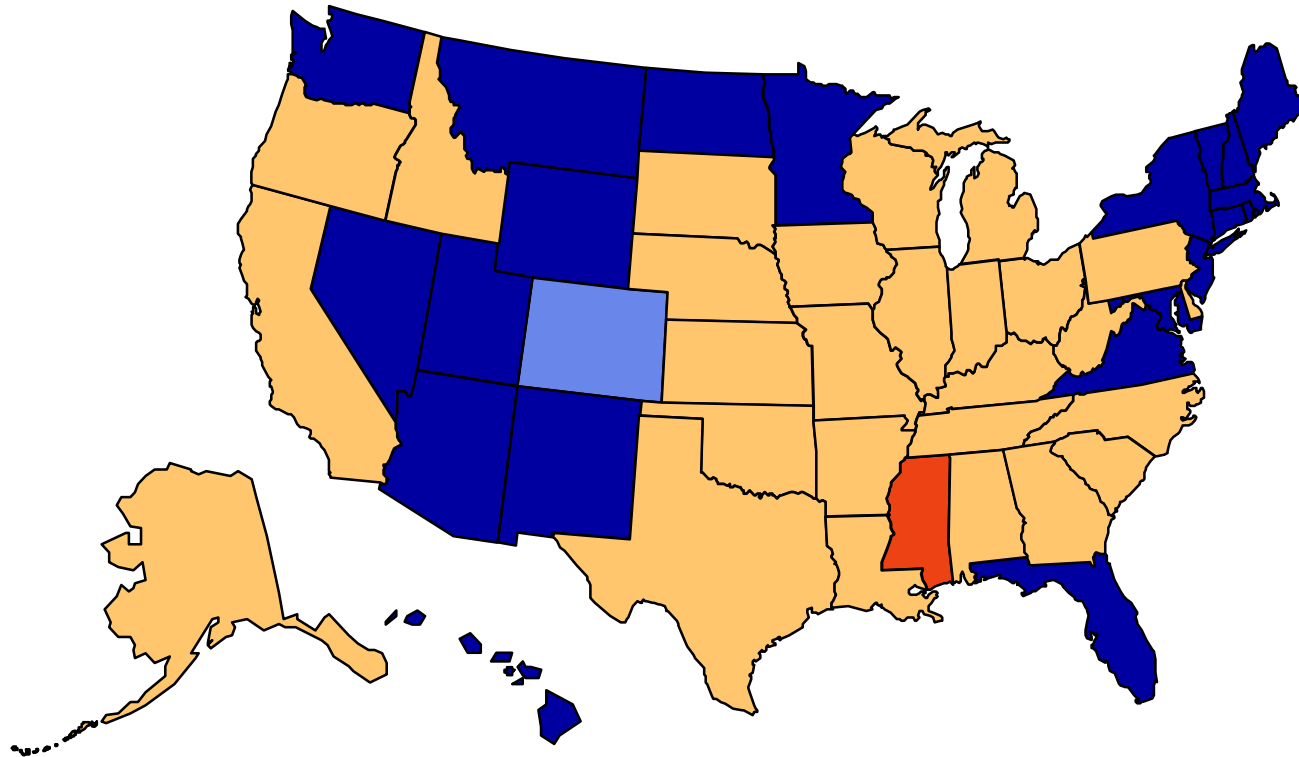
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2001

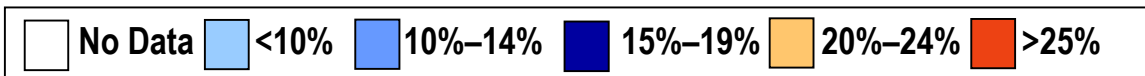
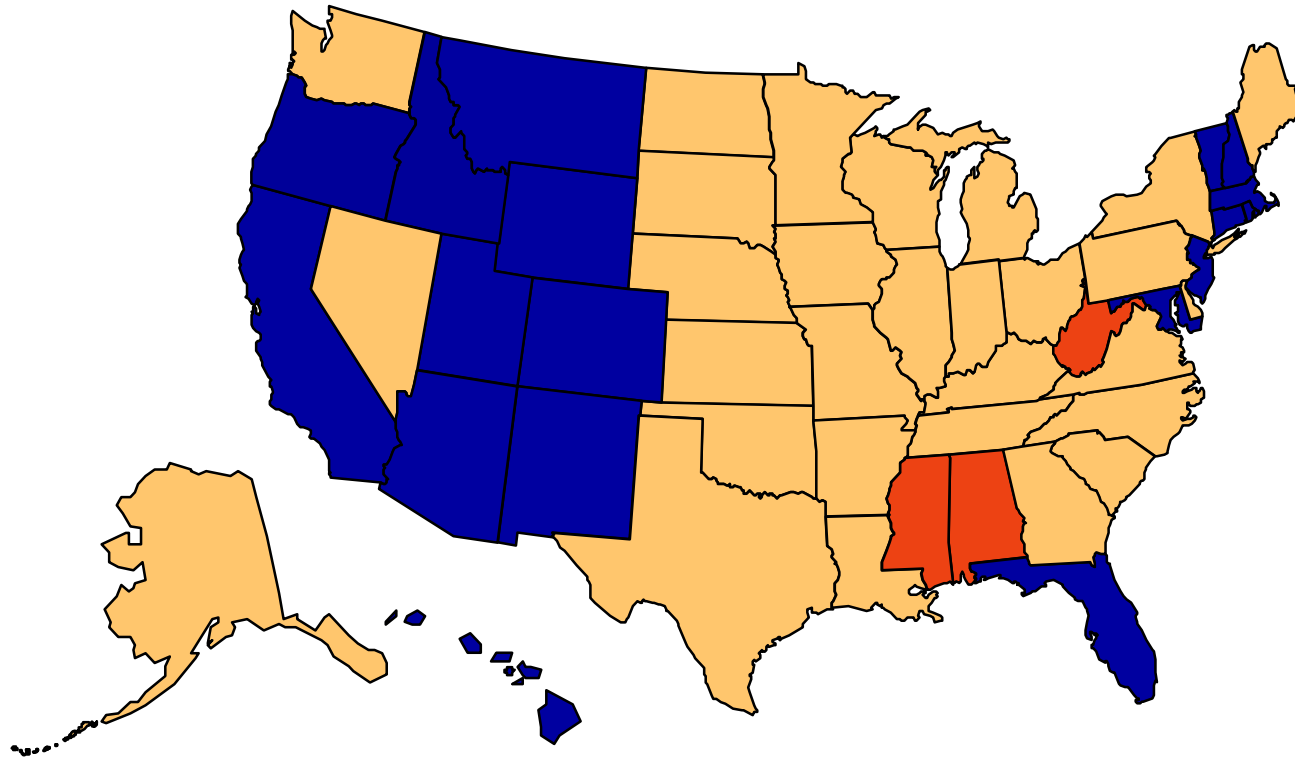
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2002

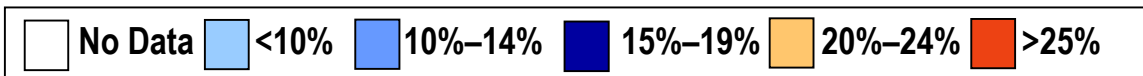
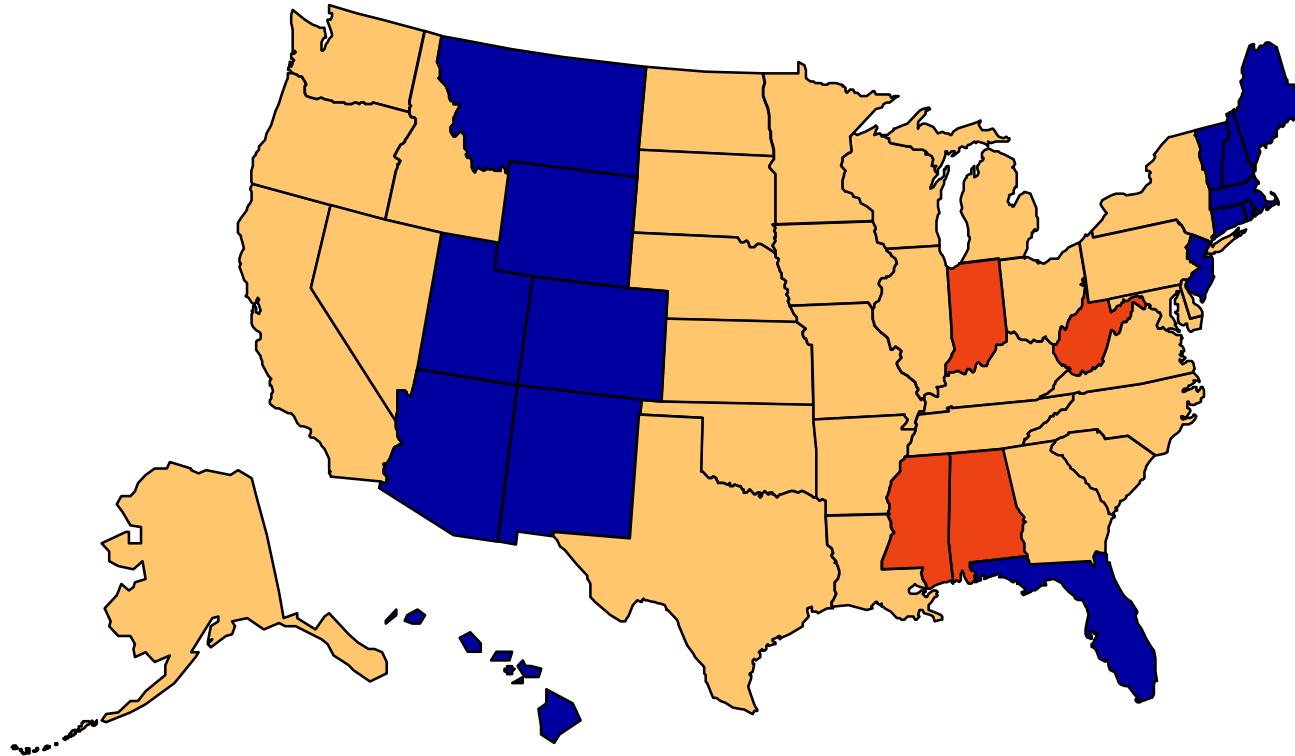
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2003

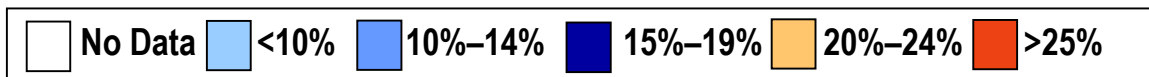
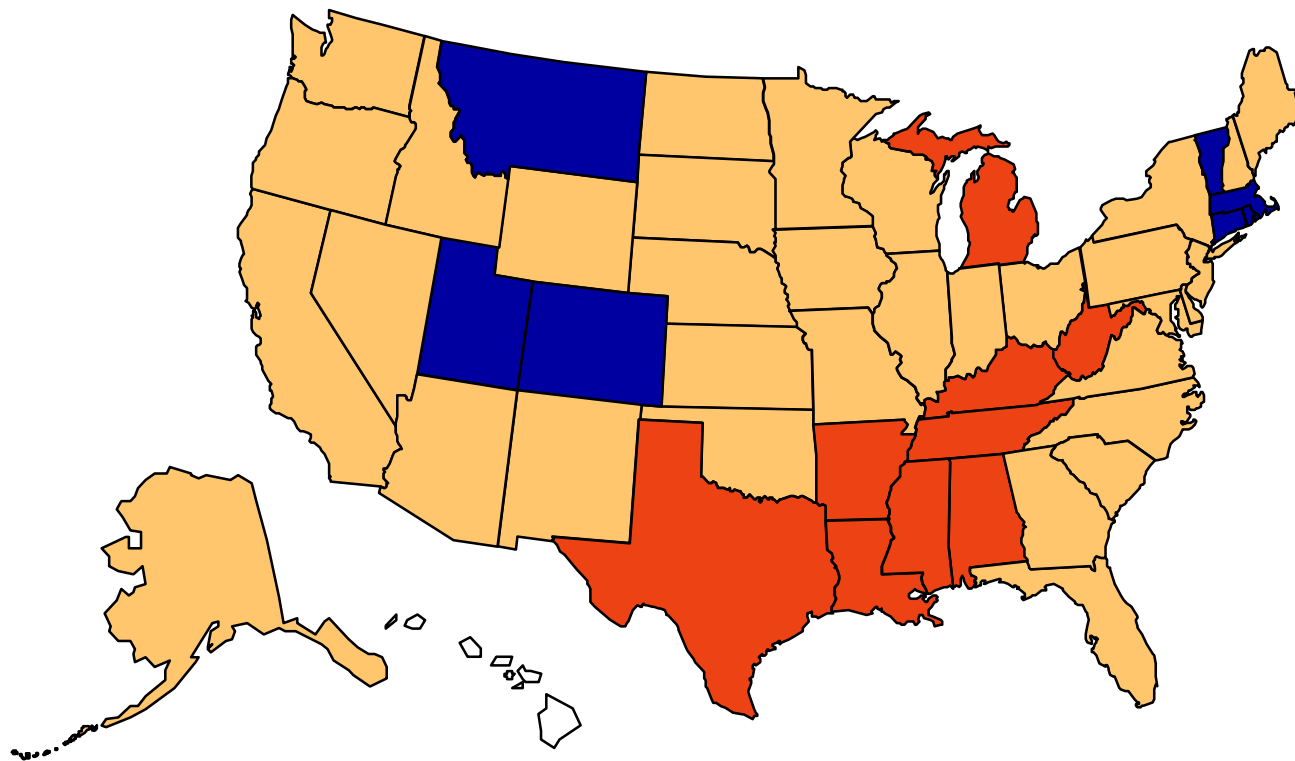
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2004

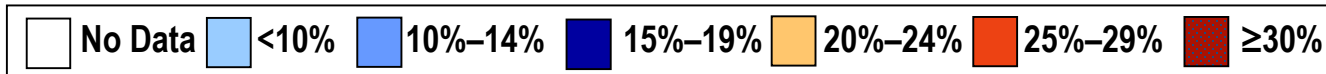
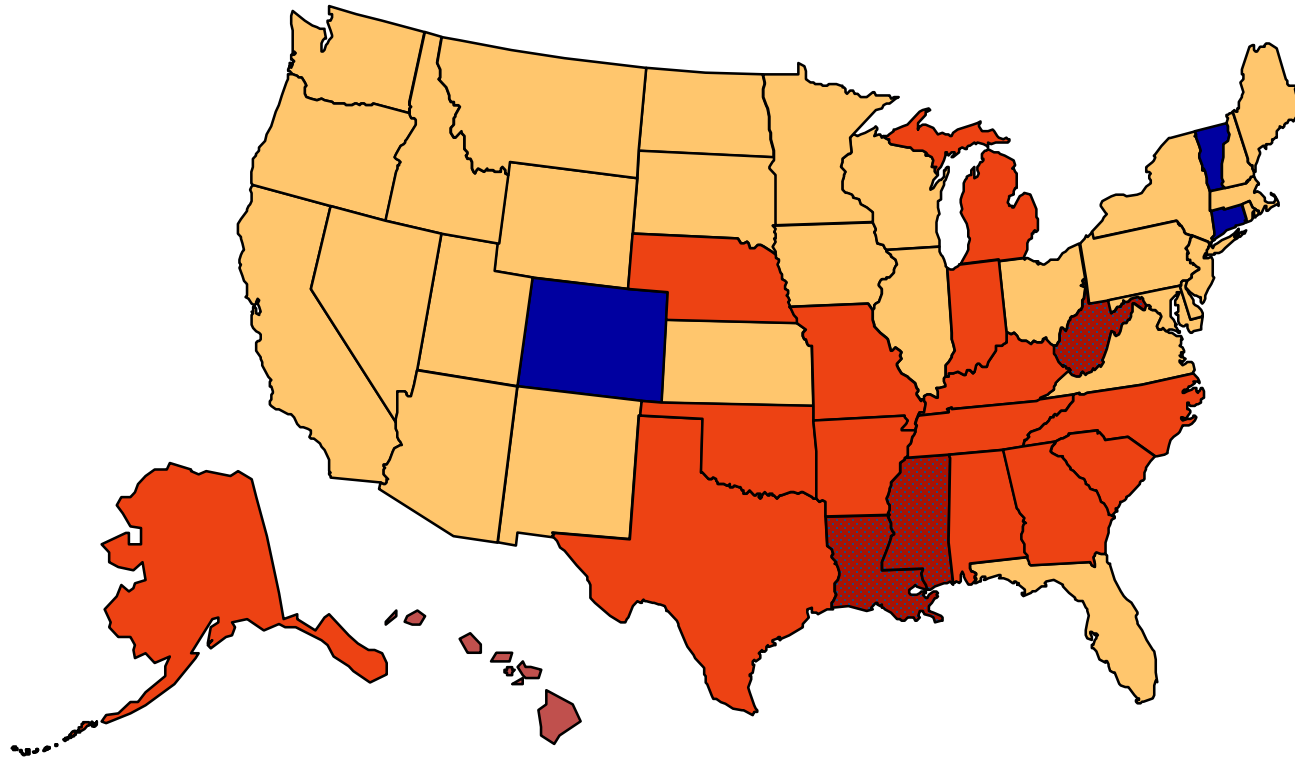
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2005

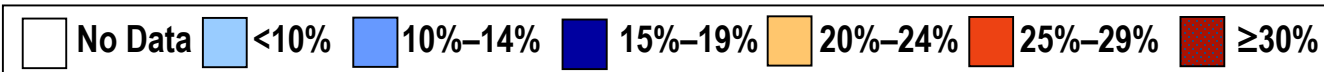
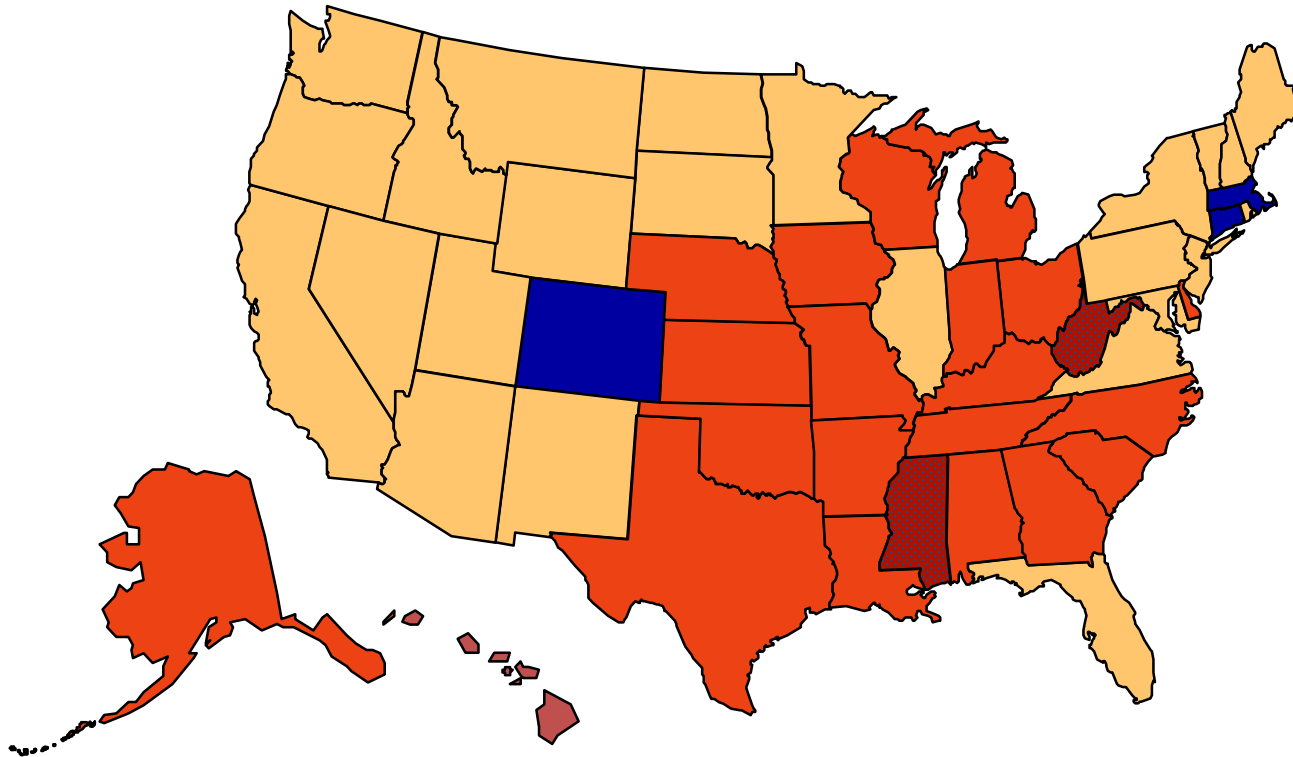
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2006

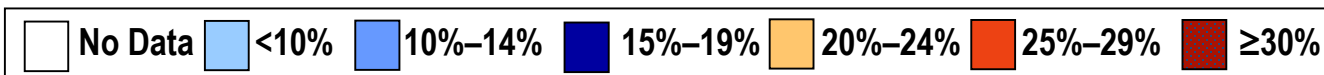
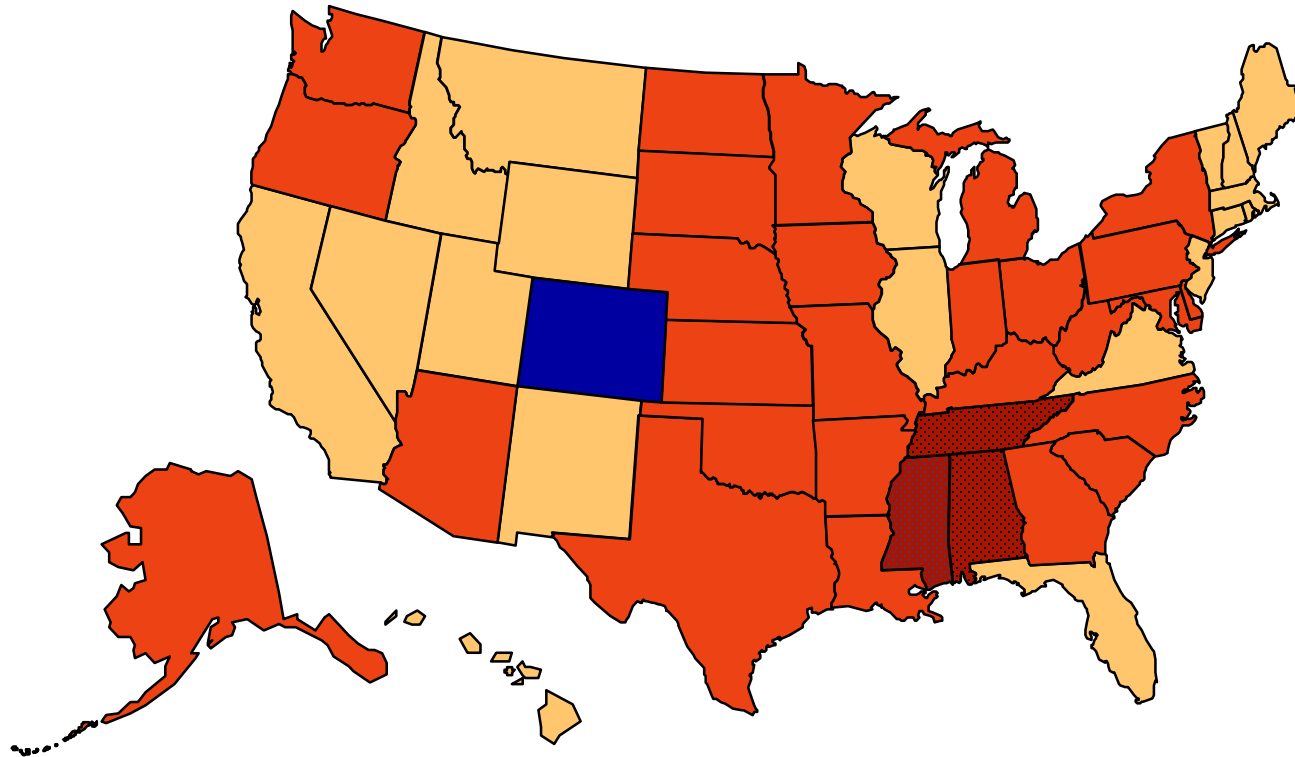
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2007

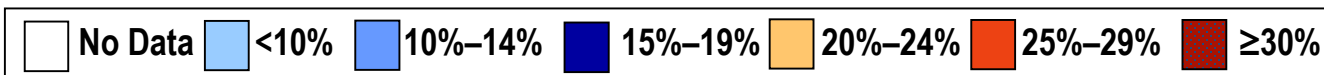
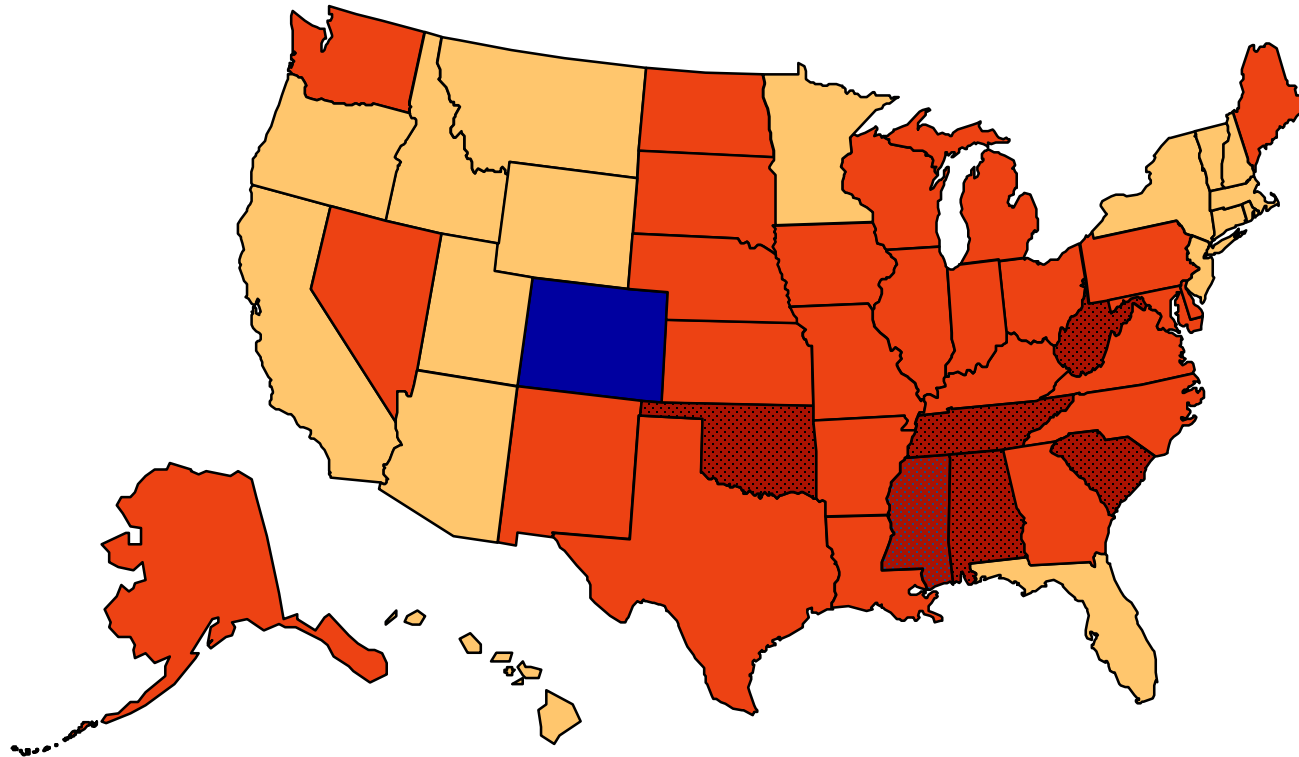
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2008

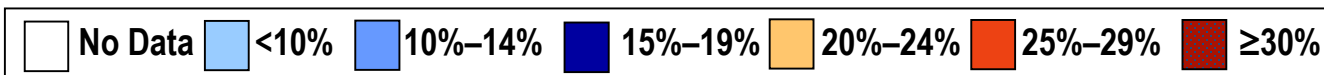
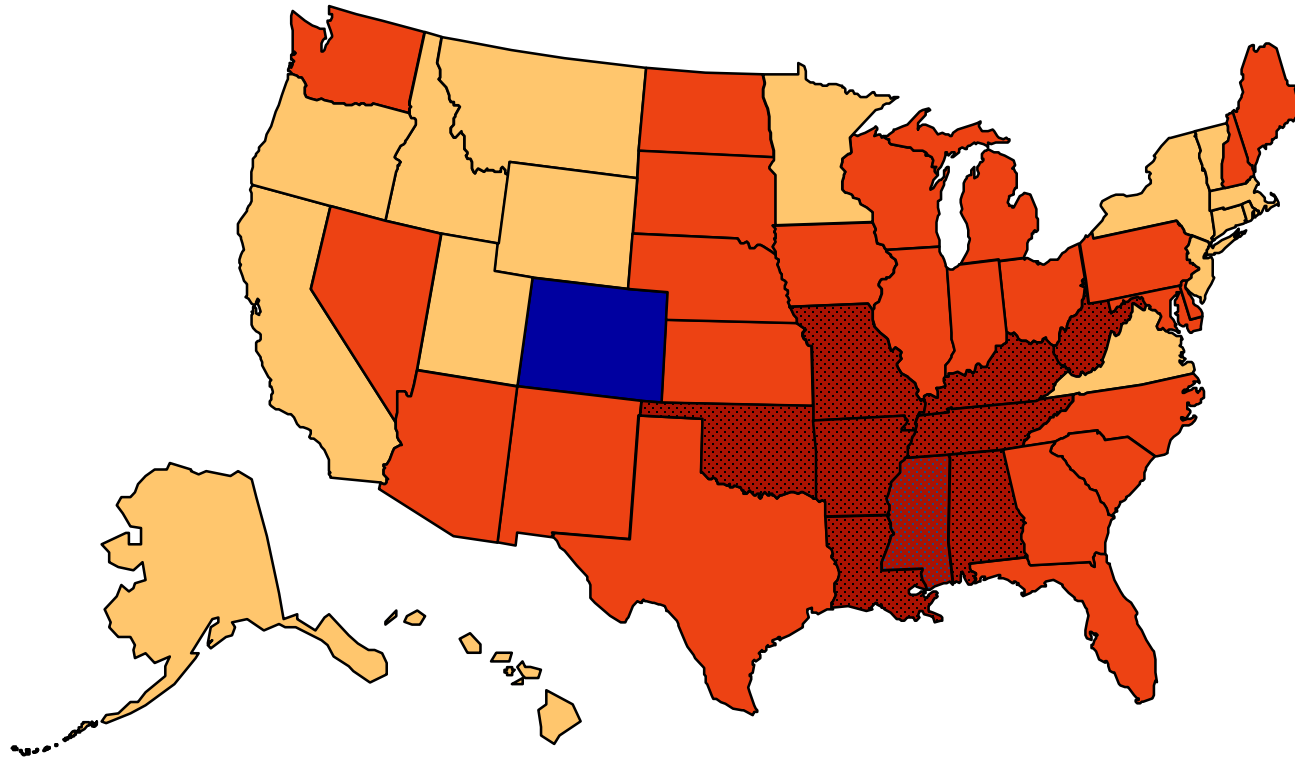
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Obesity Trends* Among U.S. Adults

BRFSS, 2009

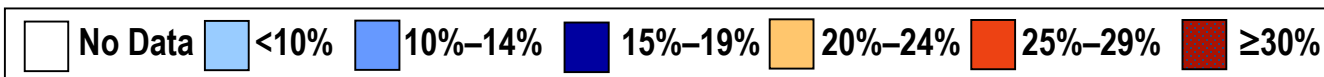
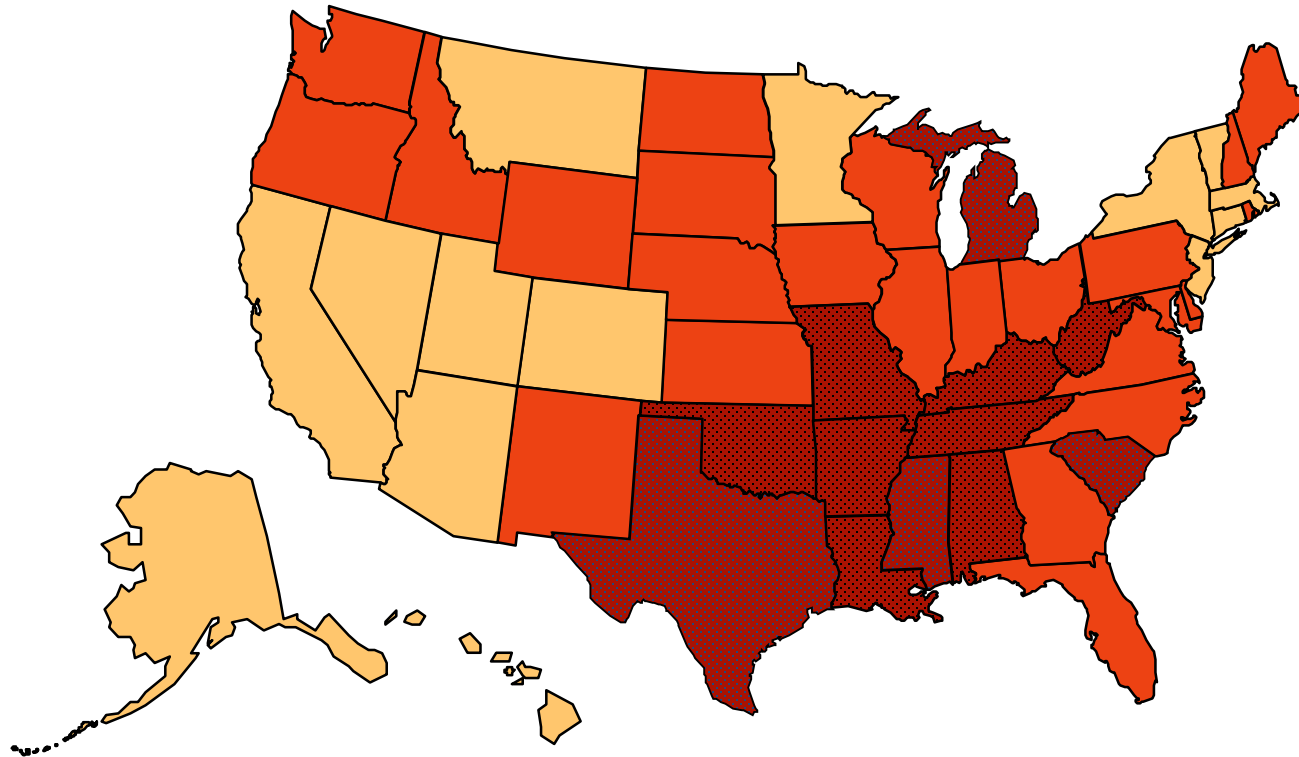
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Obesity Trends* Among U.S. Adults

BRFSS, 2010

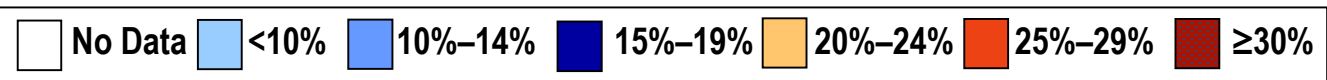
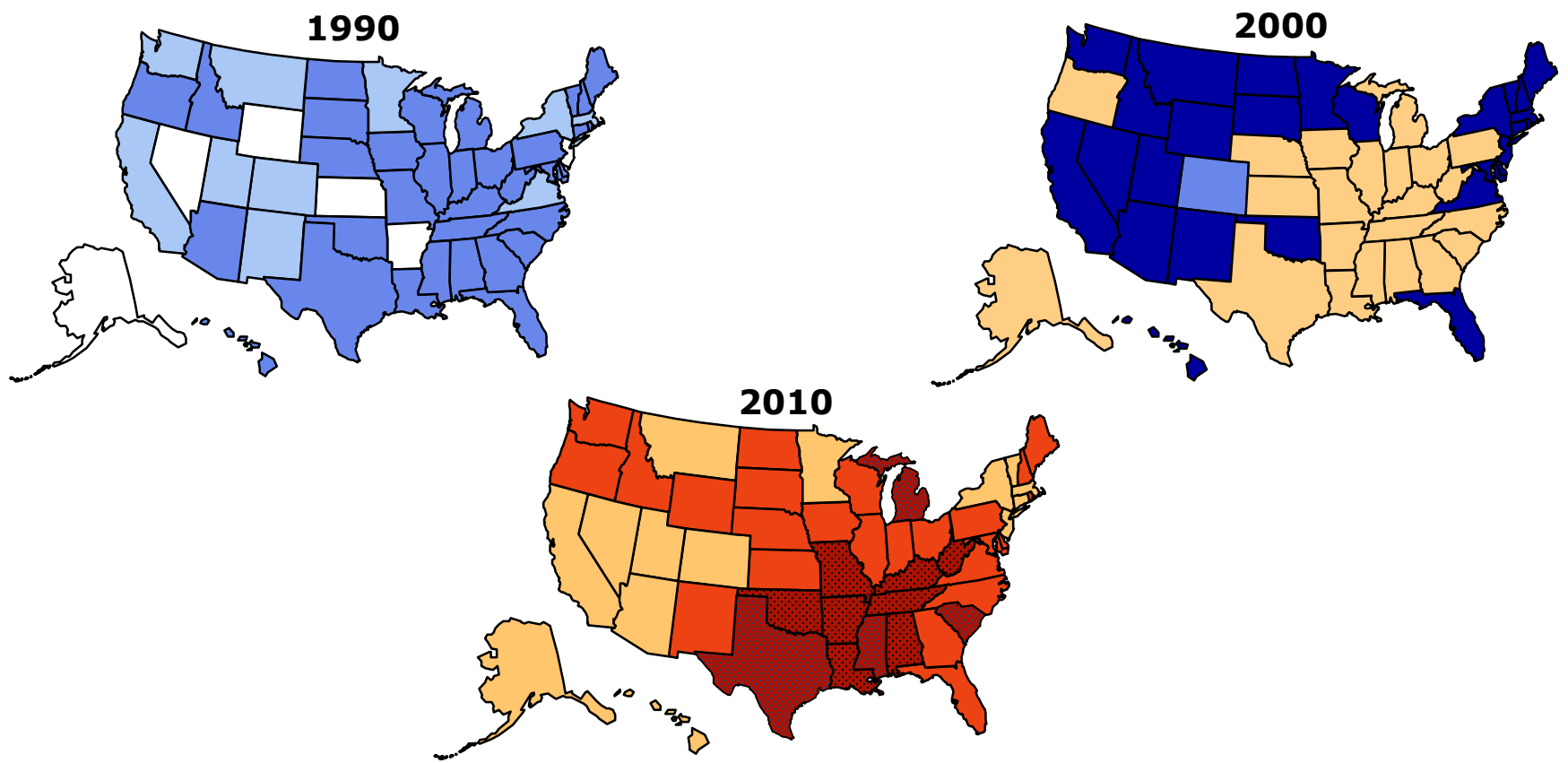
(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)





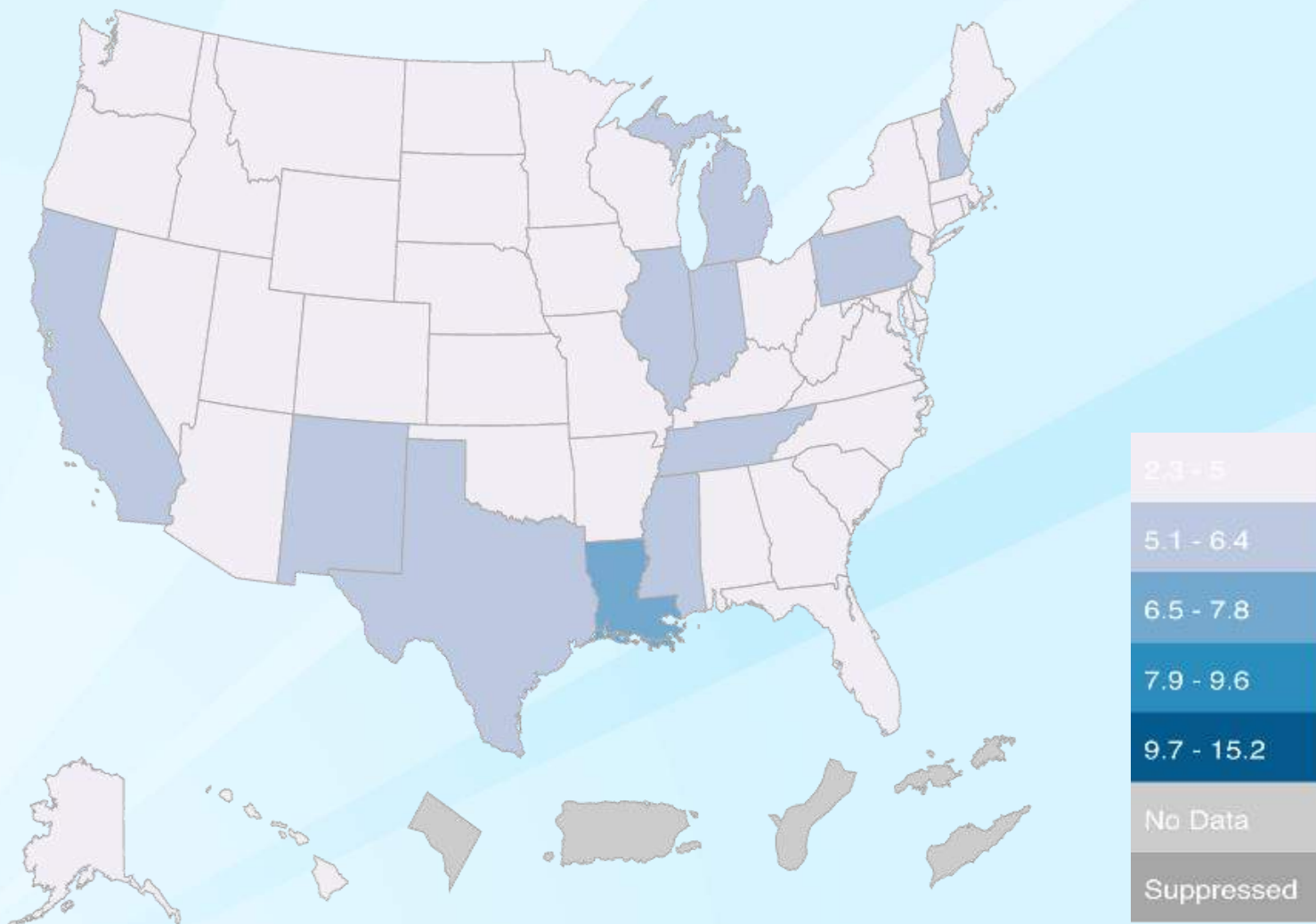
Obesity Trends* Among U.S. Adults BRFSS, 1990, 2000, 2010

(*BMI ≥ 30 , or about 30 lbs. overweight for 5'4" person)





Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 1995



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

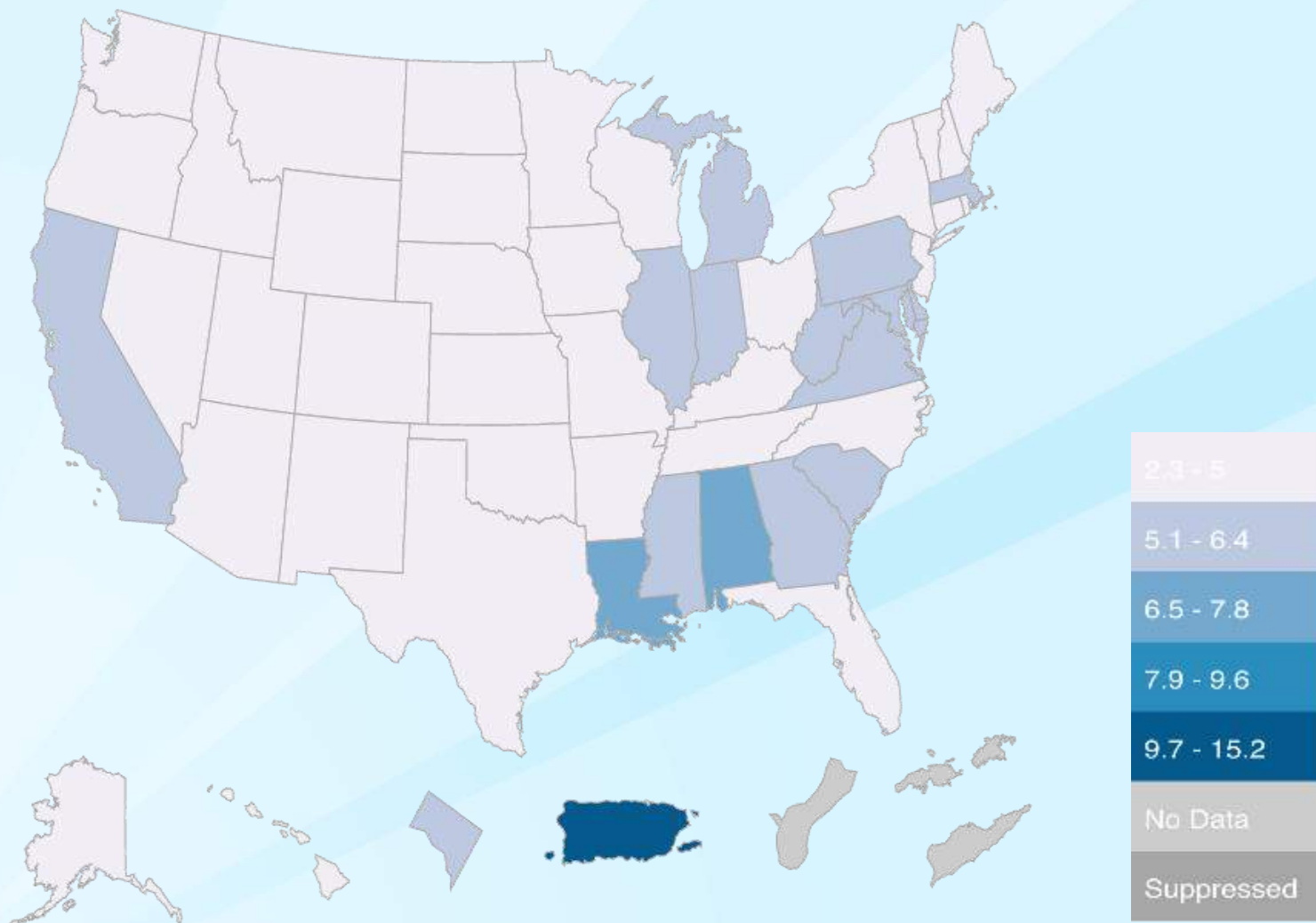
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 1996



Source: www.cdc.gov/diabetes

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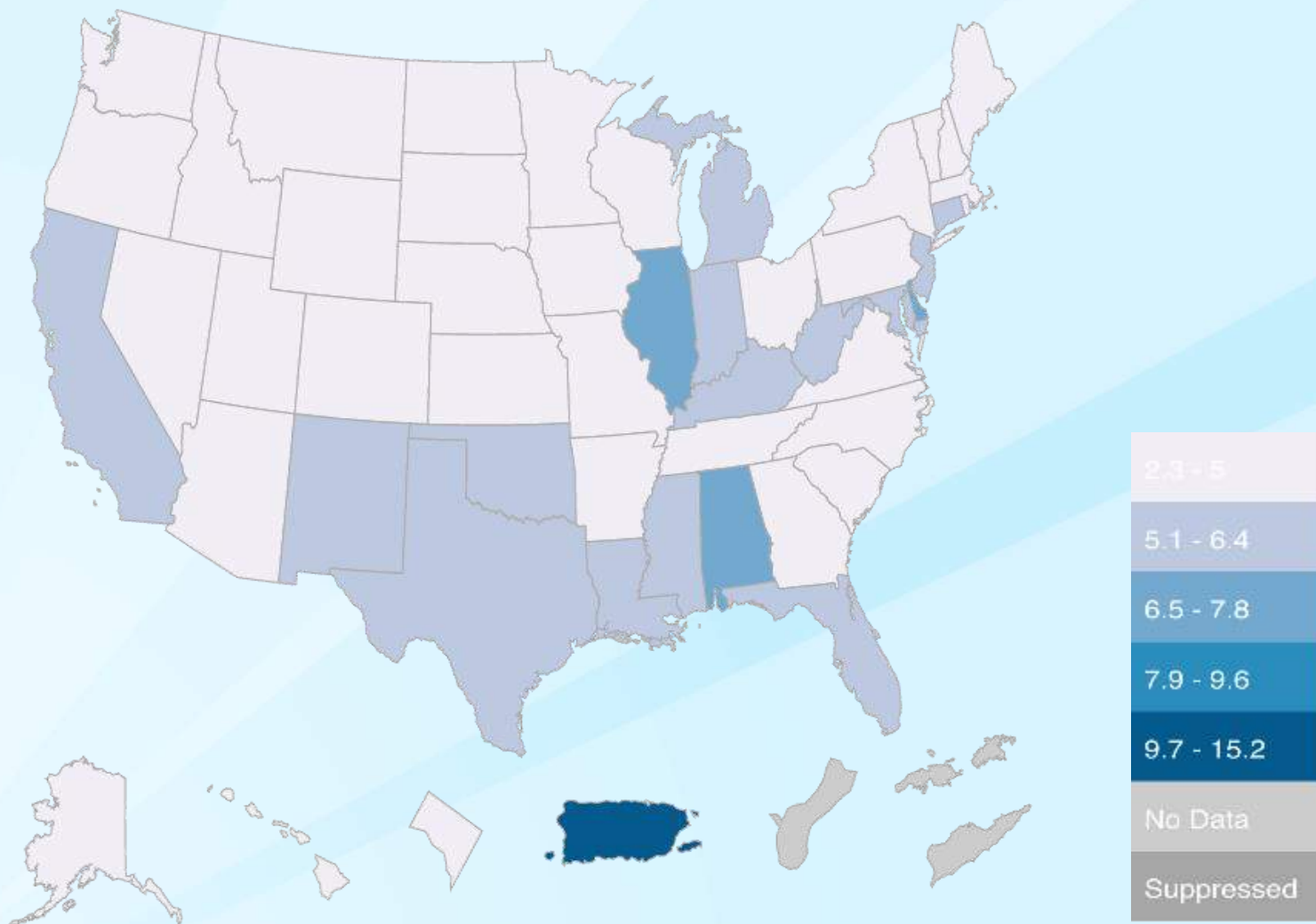
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 1997



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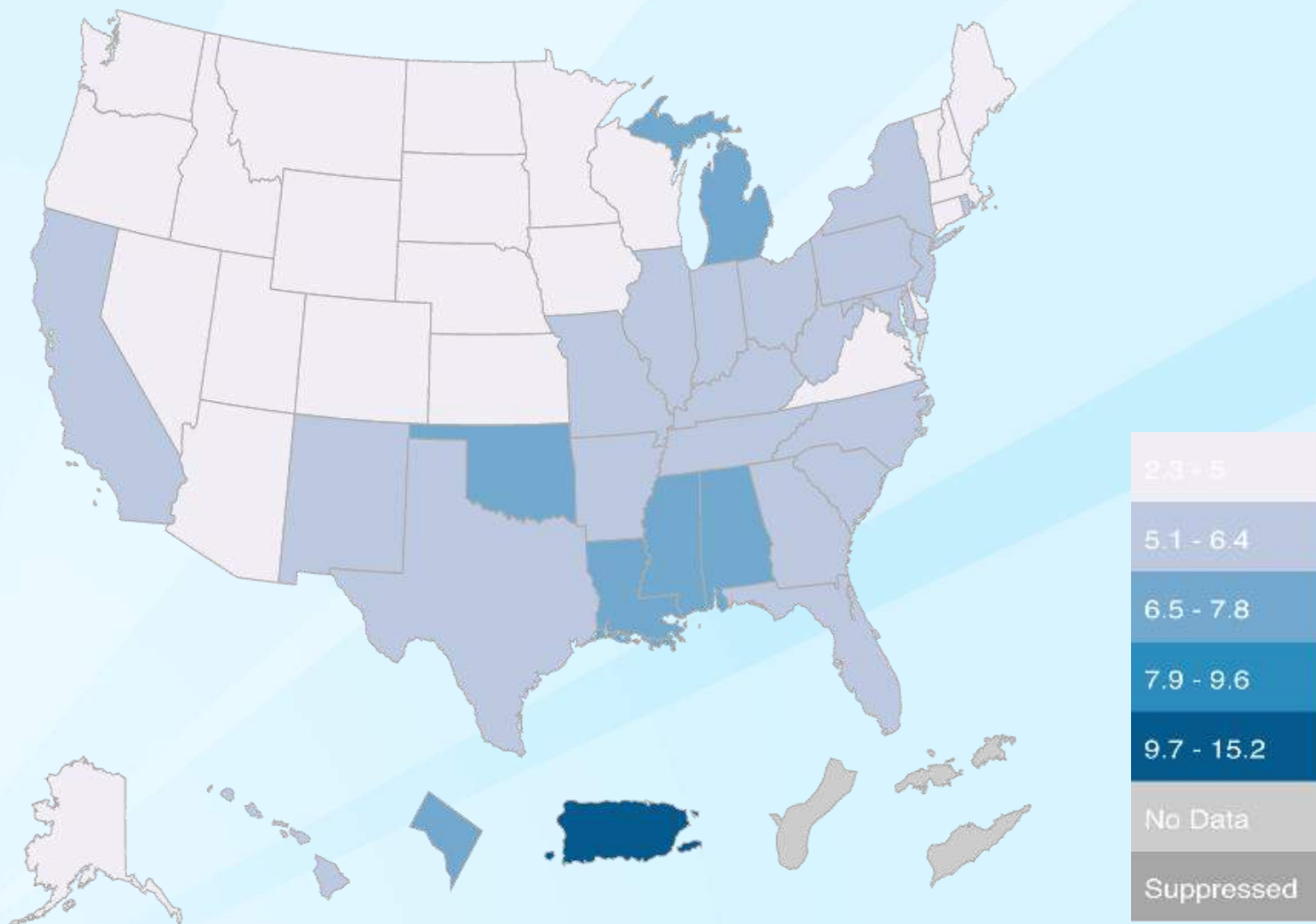
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National Center for Chronic Disease Prevention and Health Promotion

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Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 1998



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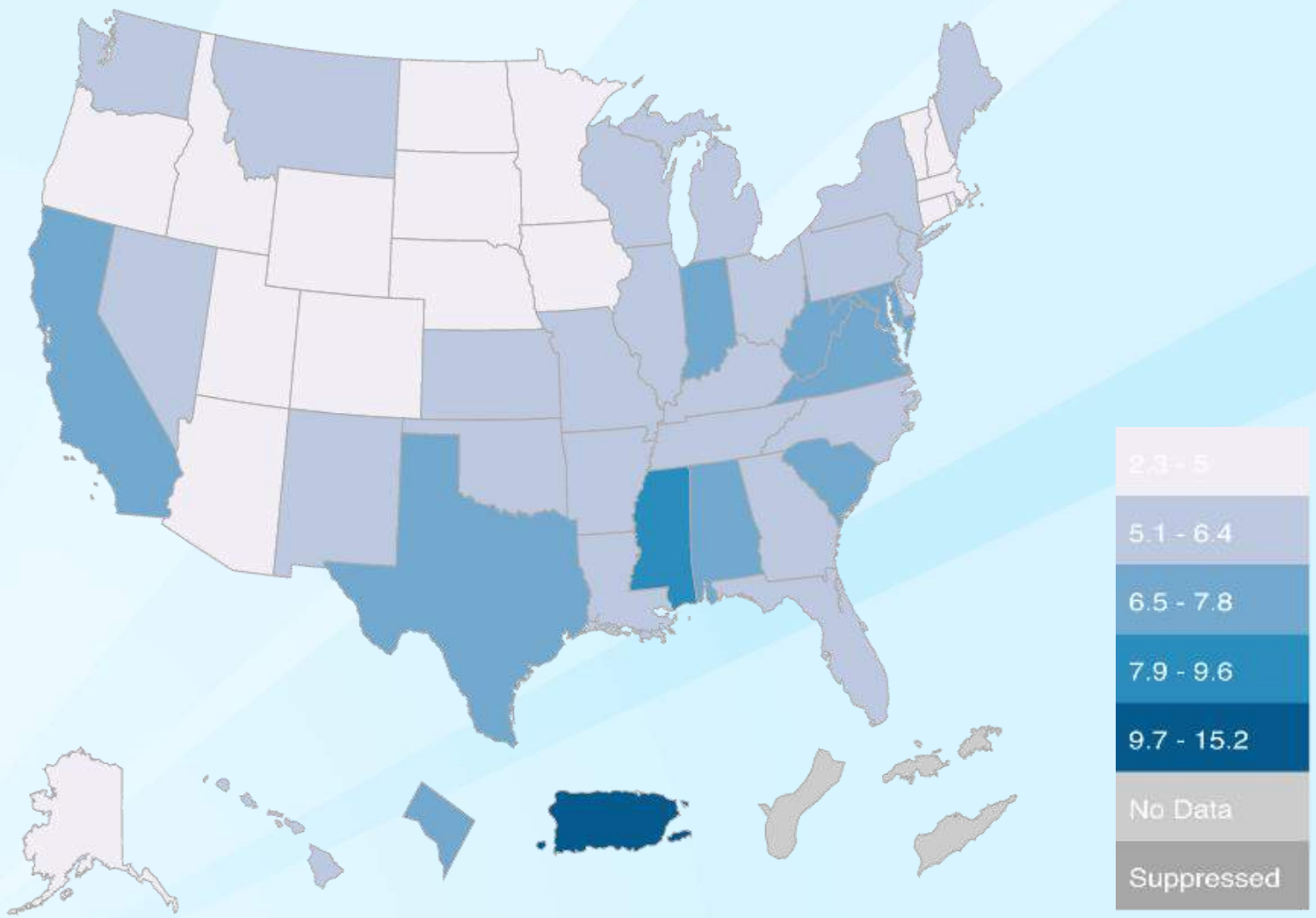
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 1999



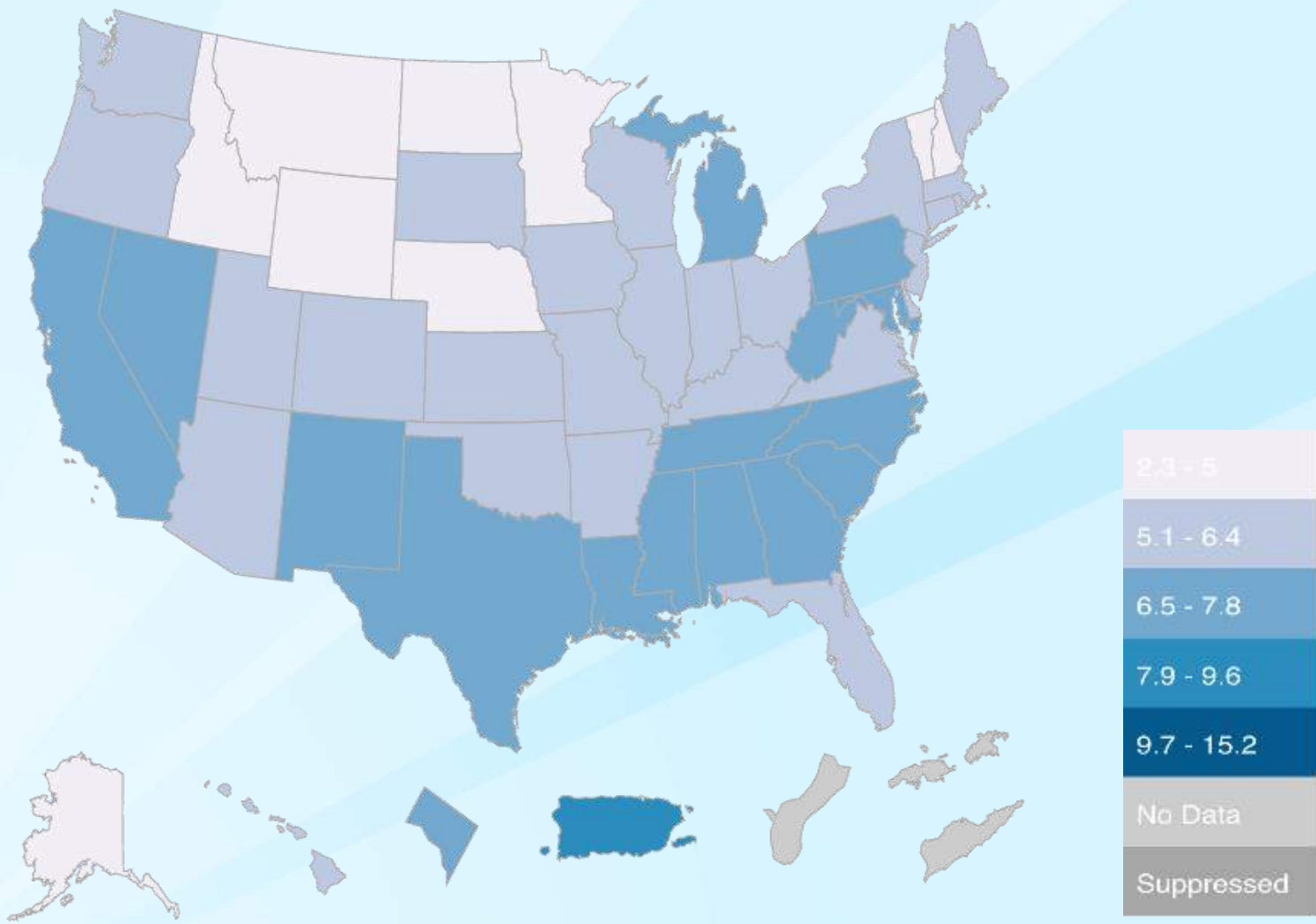
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5



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2000



Source: www.cdc.gov/diabetes

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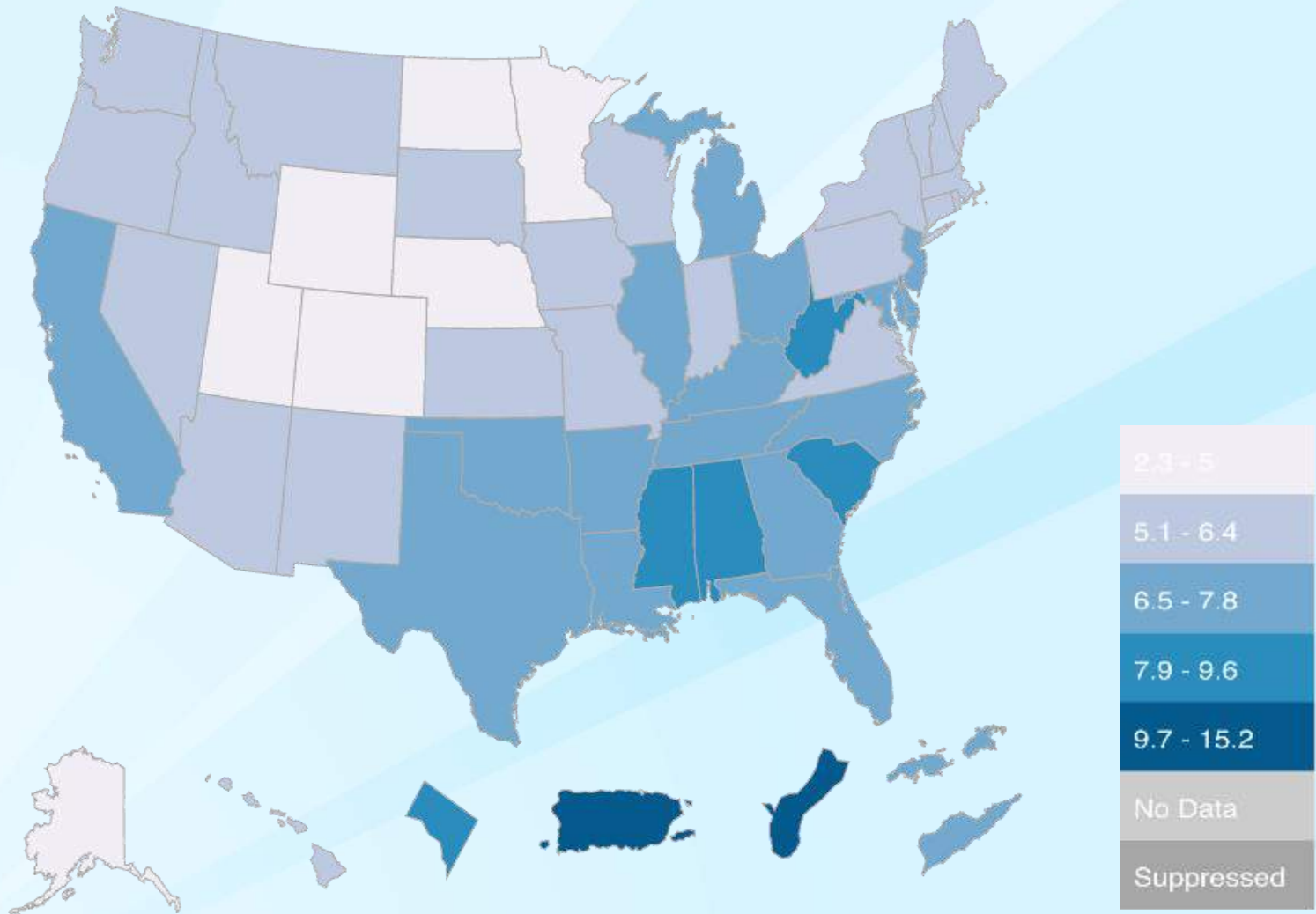
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2001



Source: www.cdc.gov/diabetes

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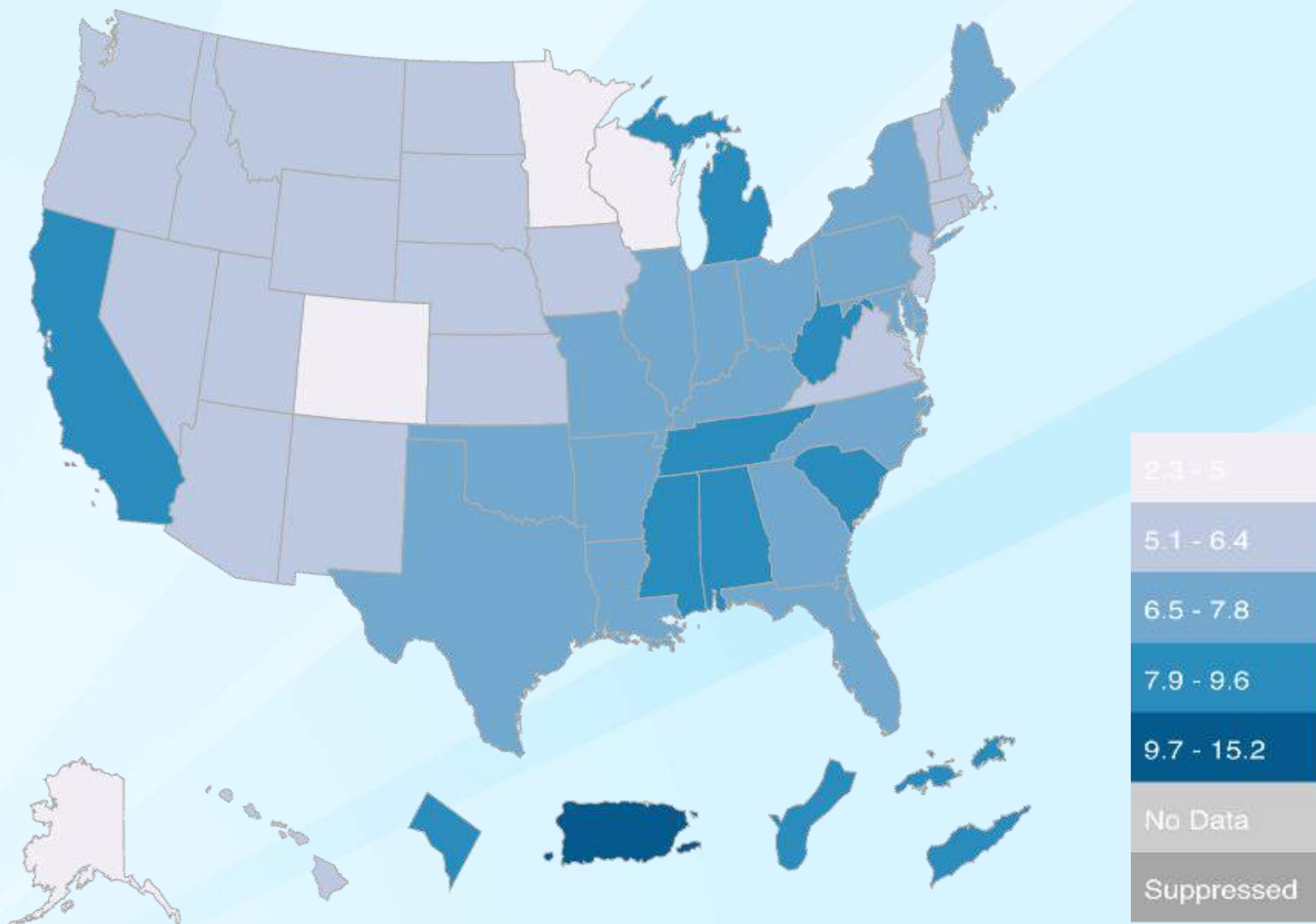
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2002



Source: www.cdc.gov/diabetes

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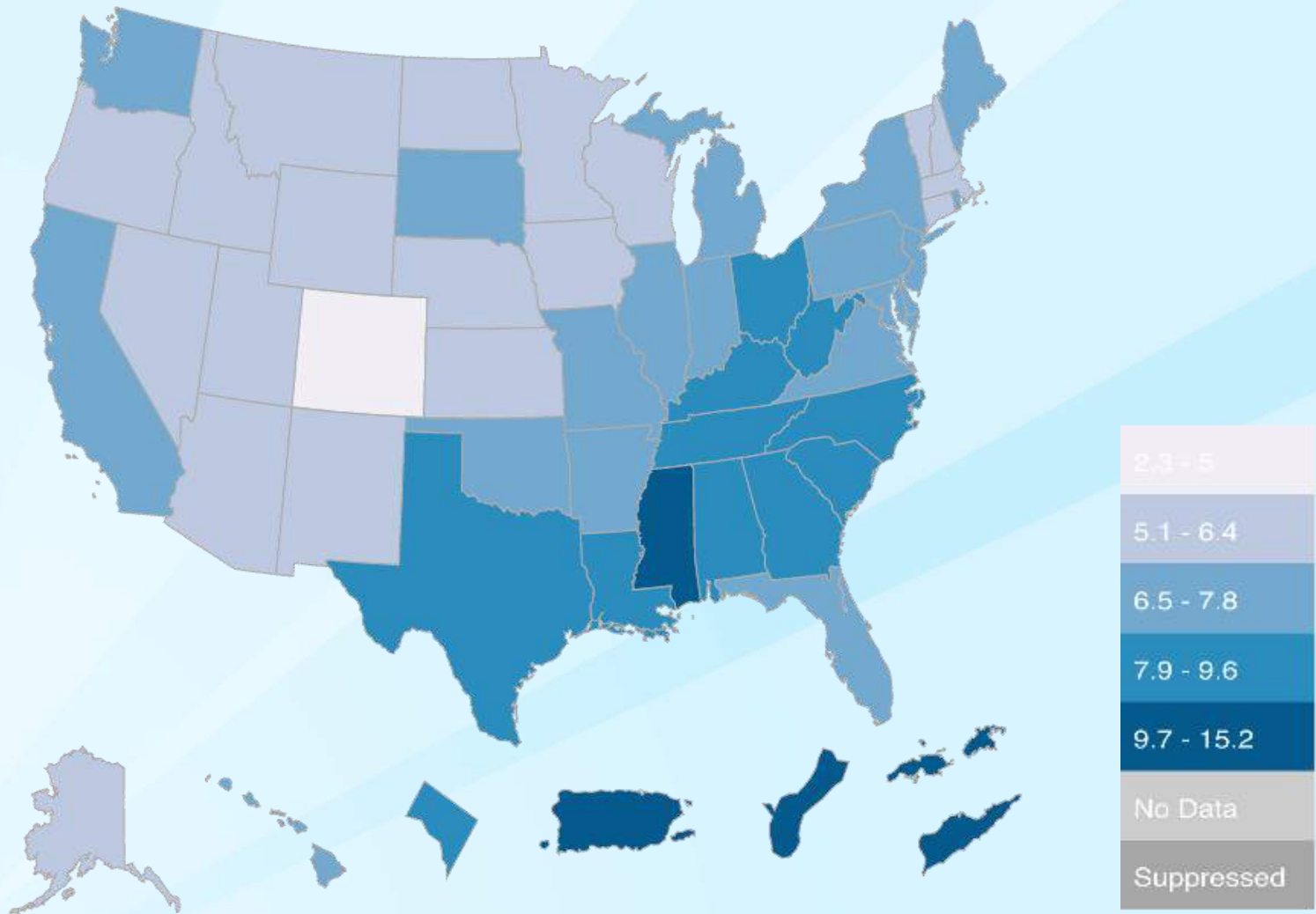
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2003



Source: www.cdc.gov/diabetes

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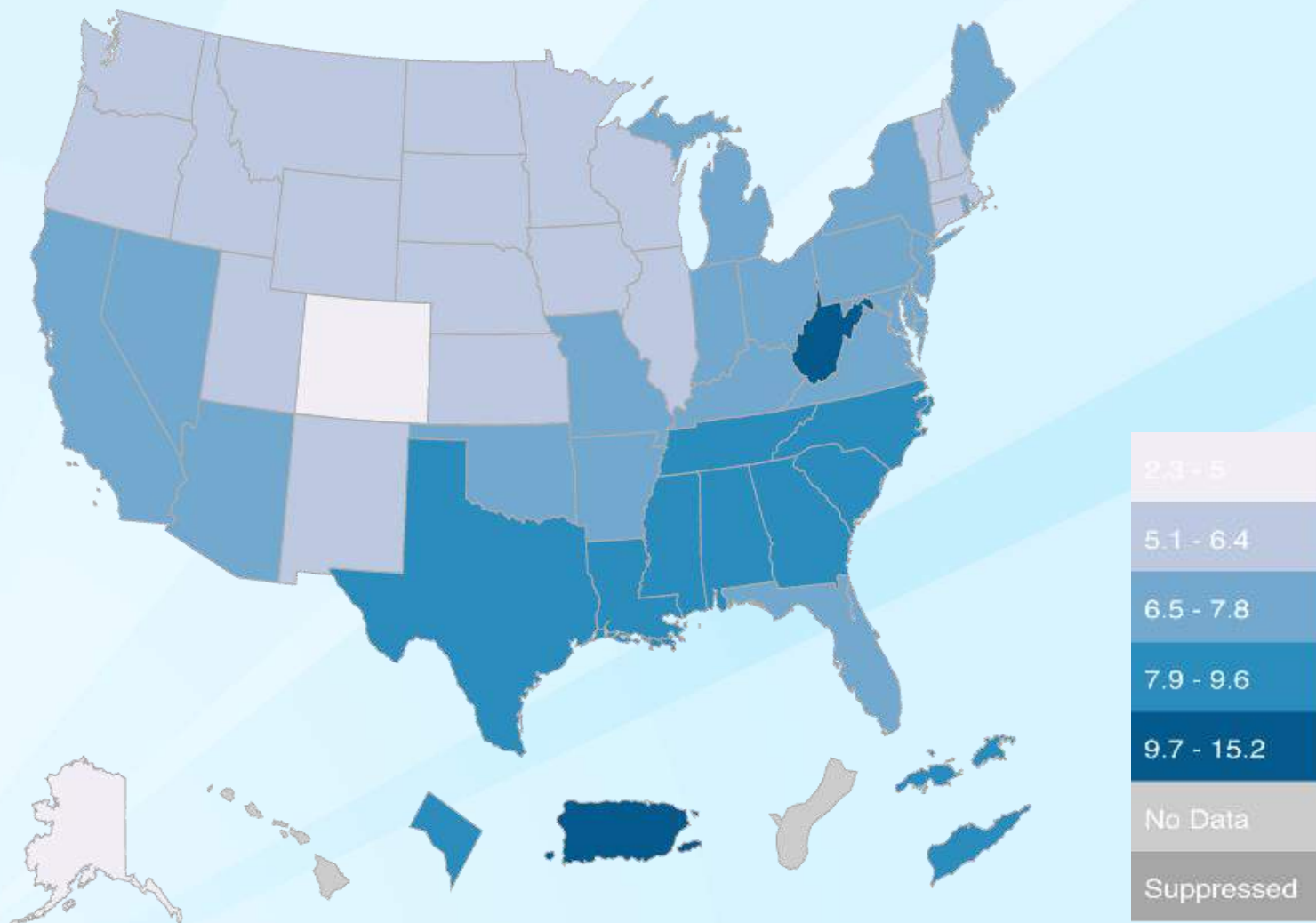
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2004



Source: www.cdc.gov/diabetes

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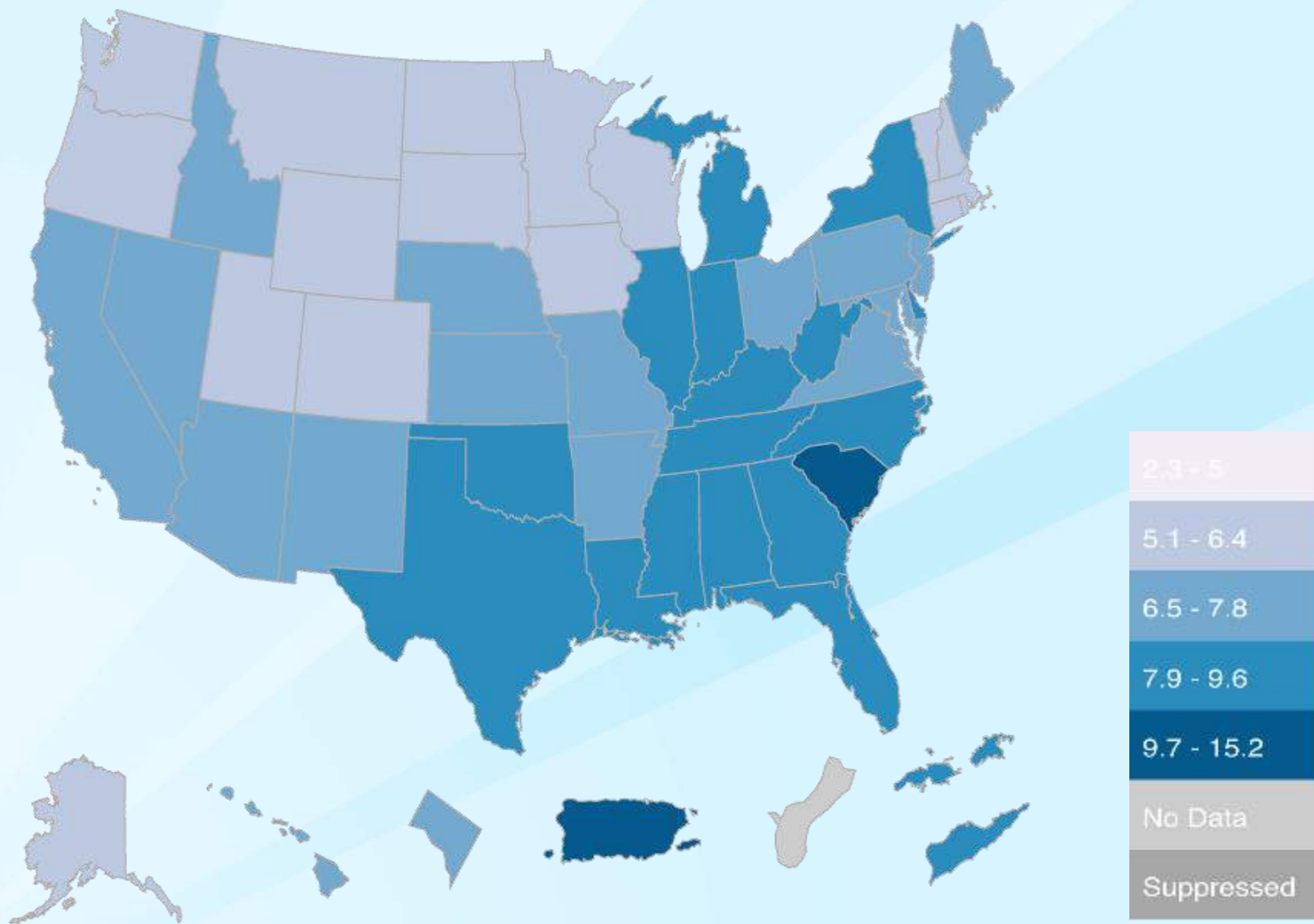
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National Center for Chronic Disease Prevention and Health Promotion

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Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2005



Source: www.cdc.gov/diabetes

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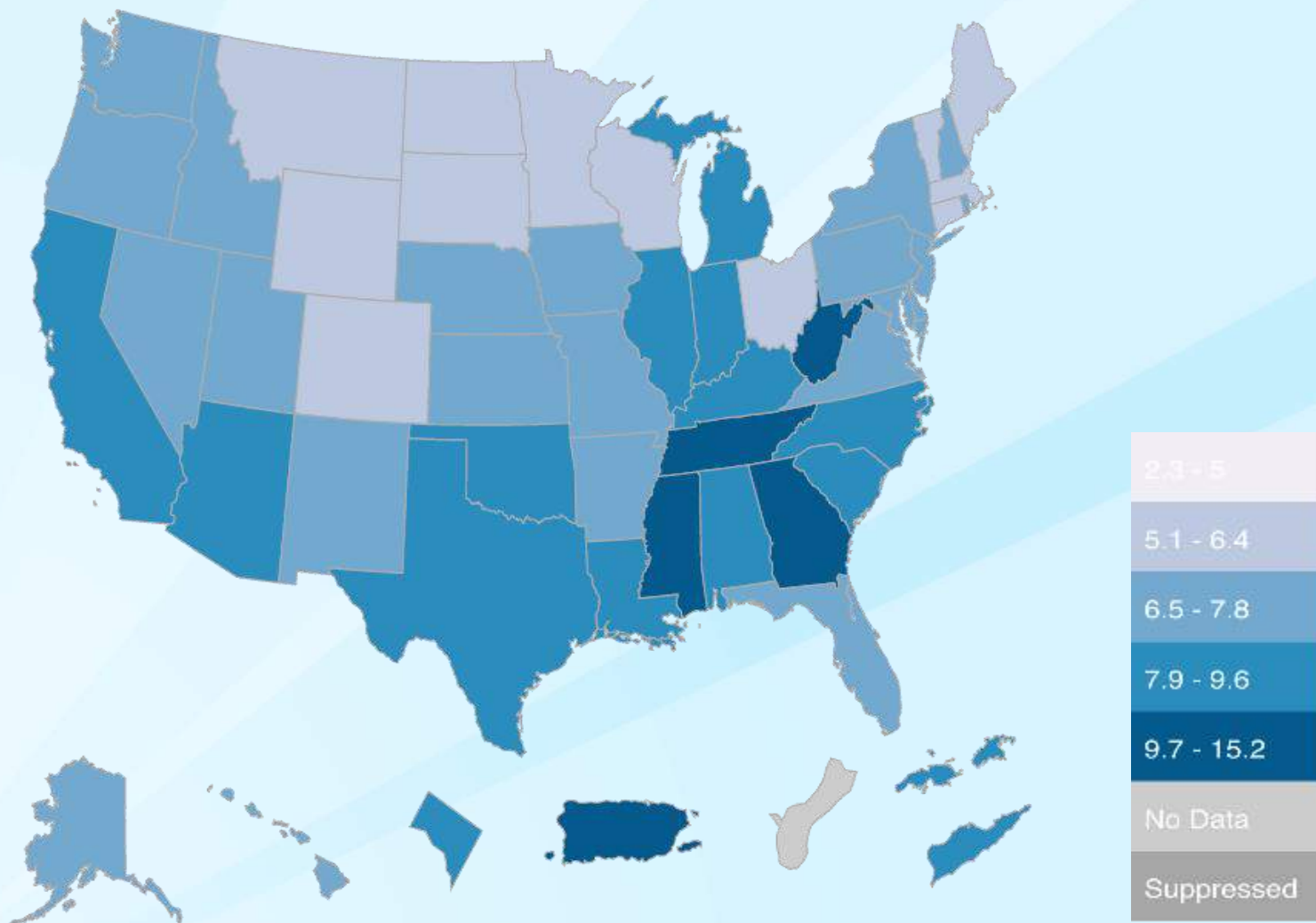
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2006



Source: www.cdc.gov/diabetes

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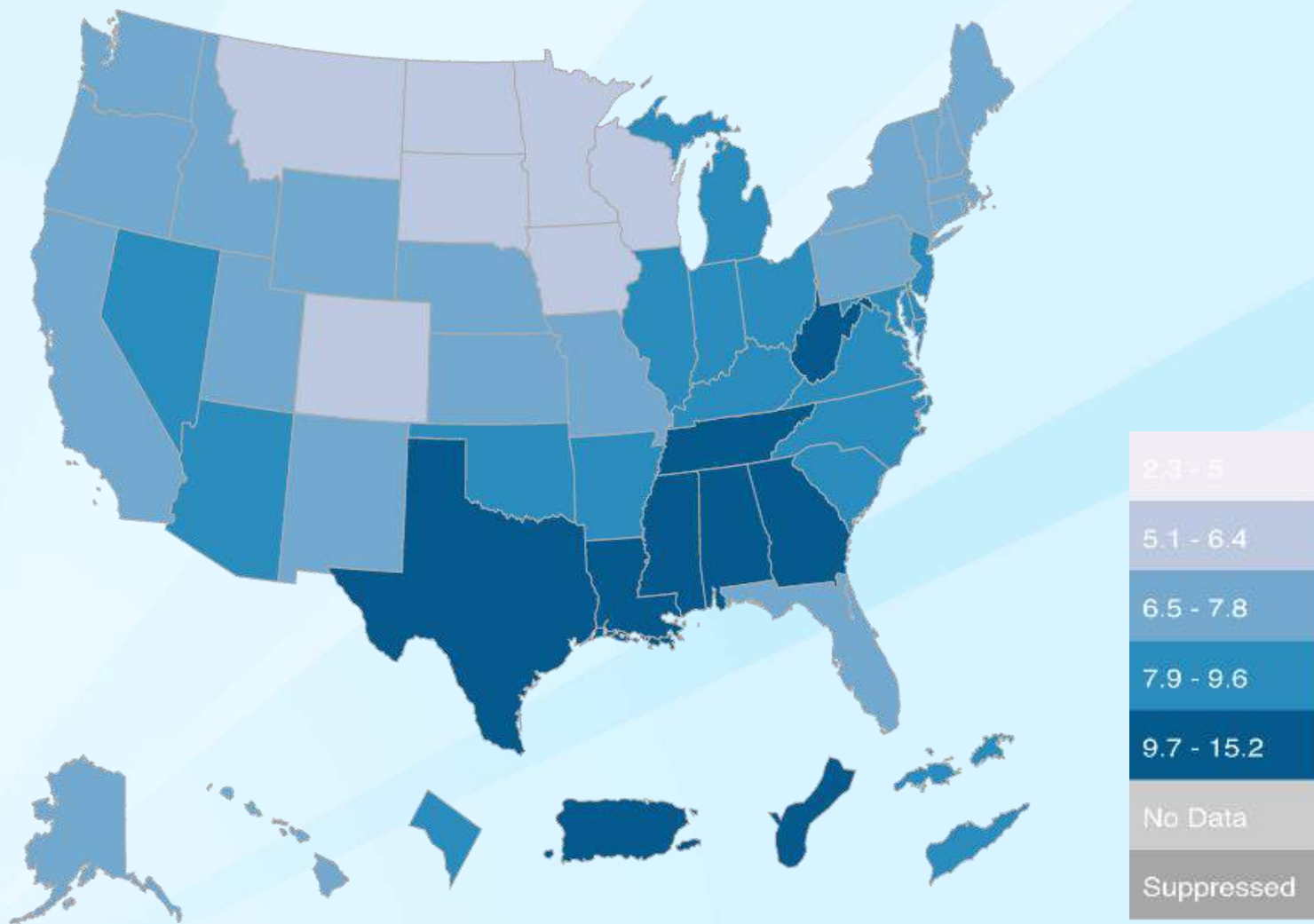
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2007



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

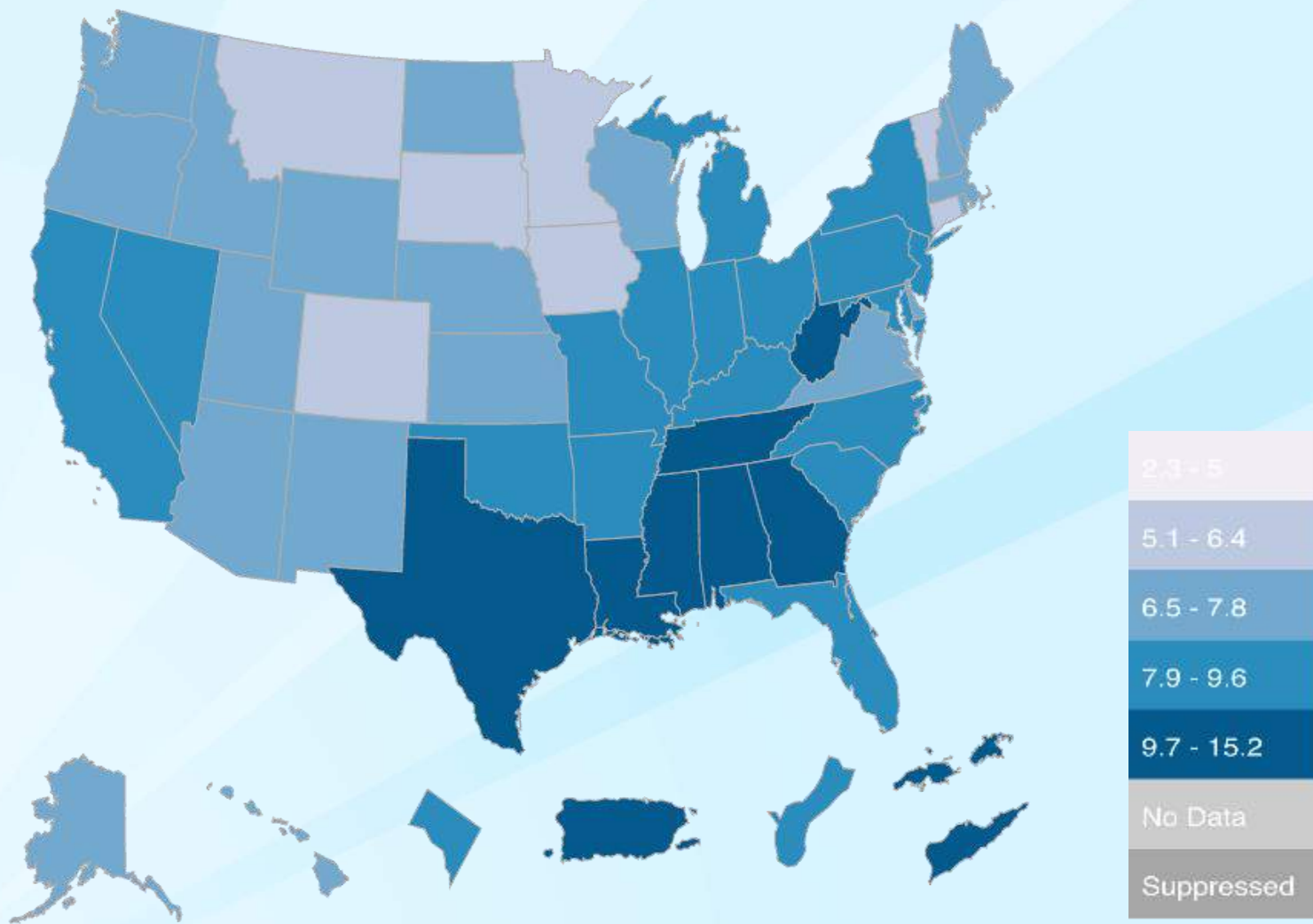
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2008



Source: www.cdc.gov/diabetes

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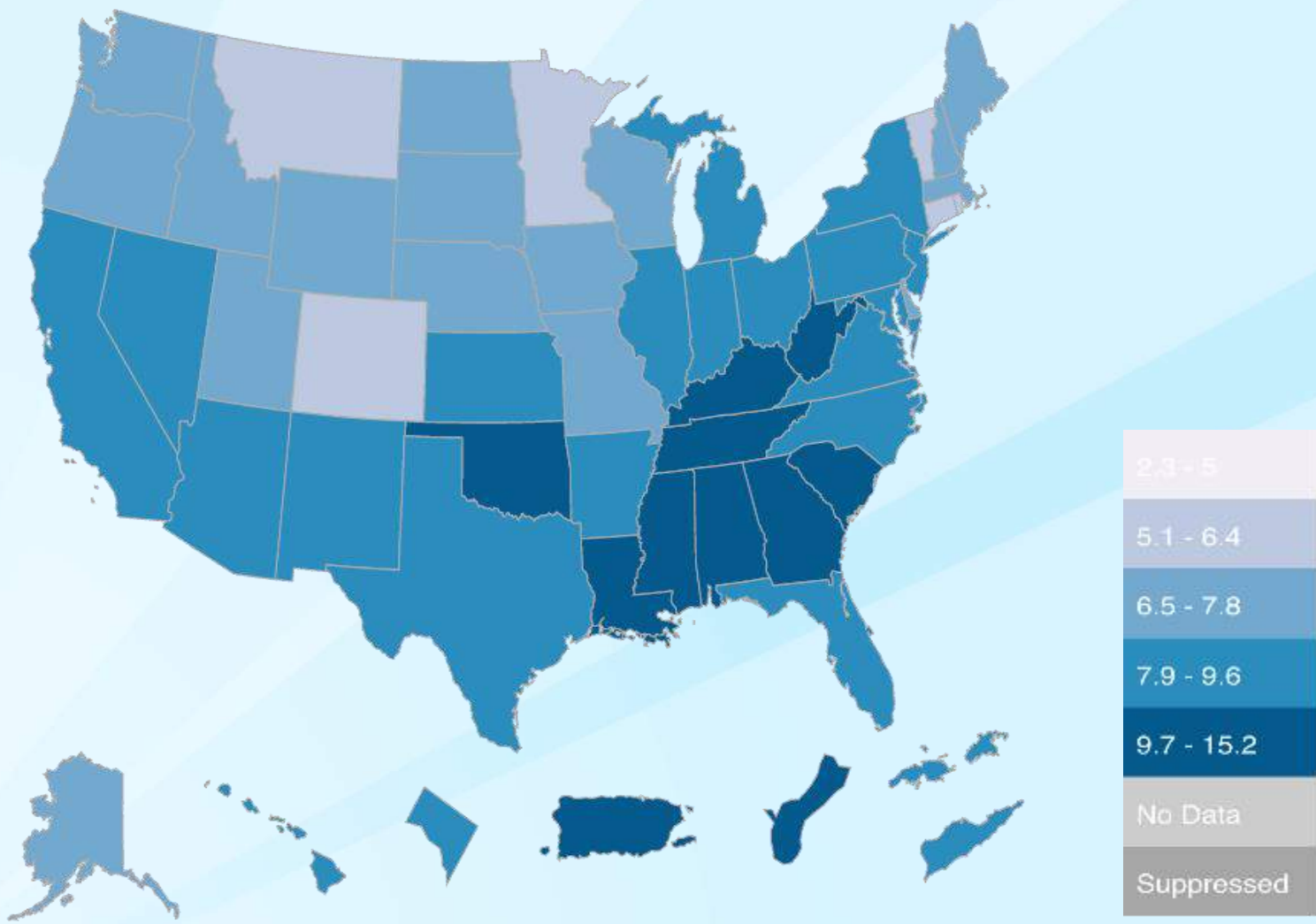
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2009



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

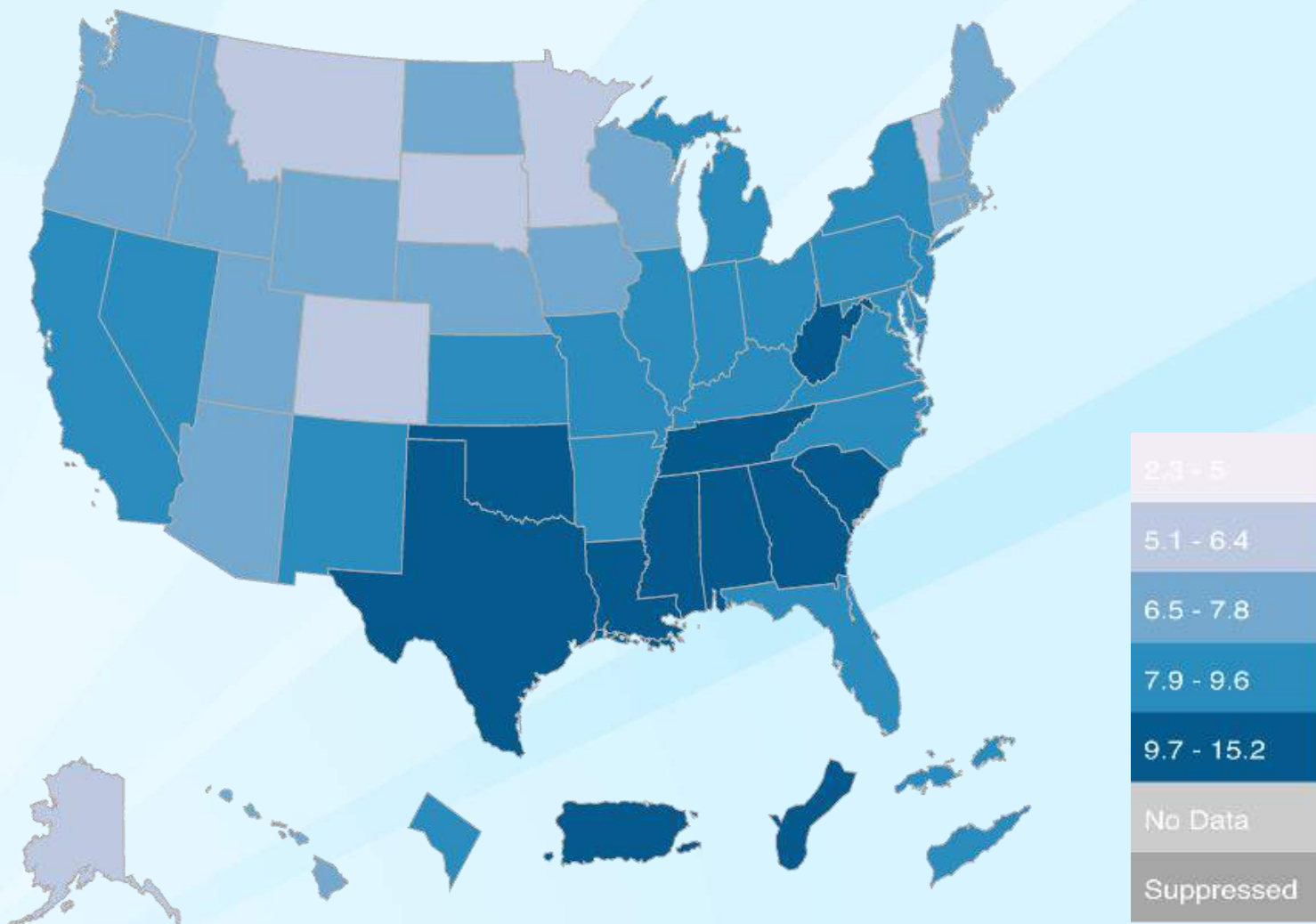
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Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2010



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

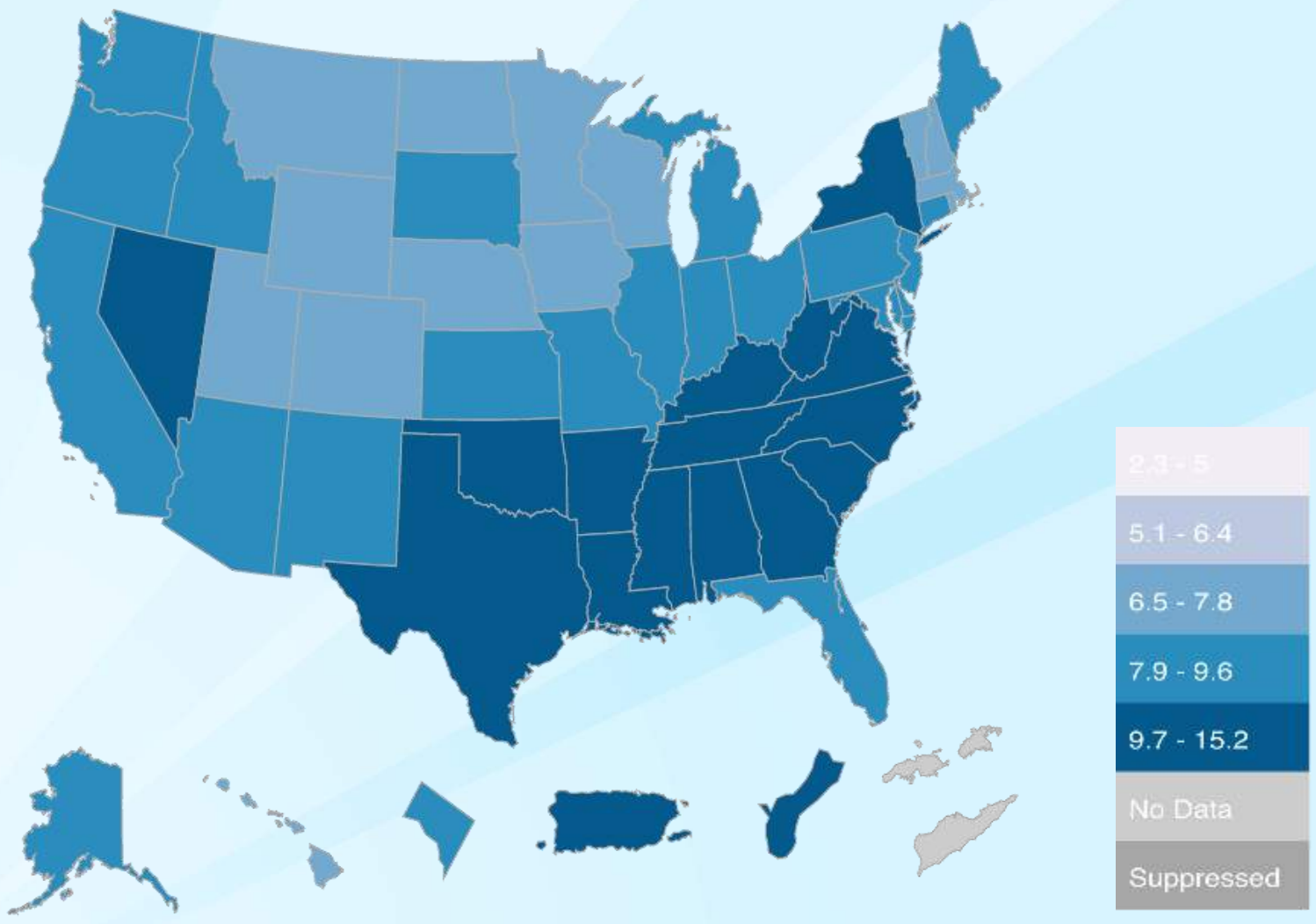
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2011



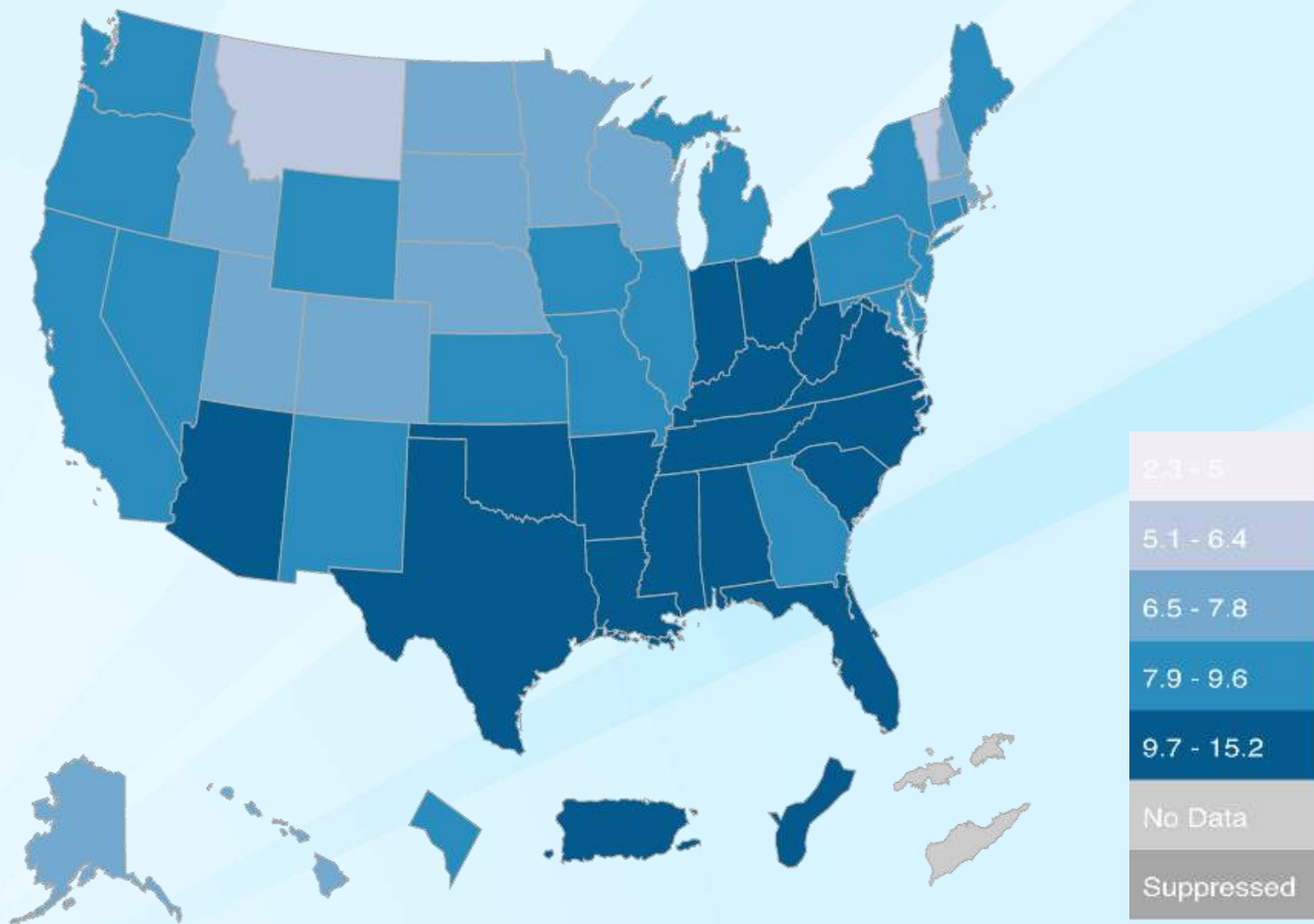
Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

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Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2012



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

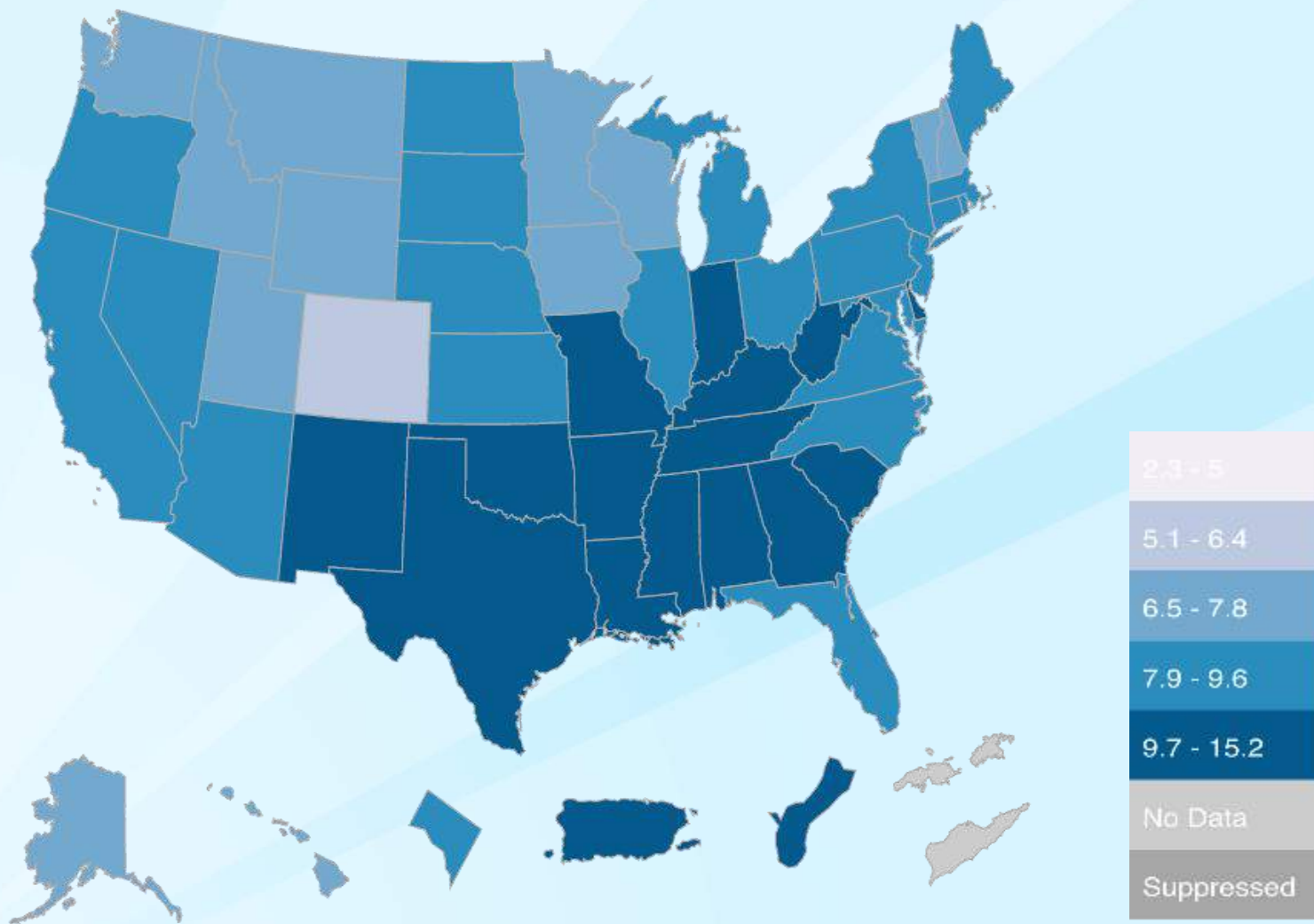
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2013



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

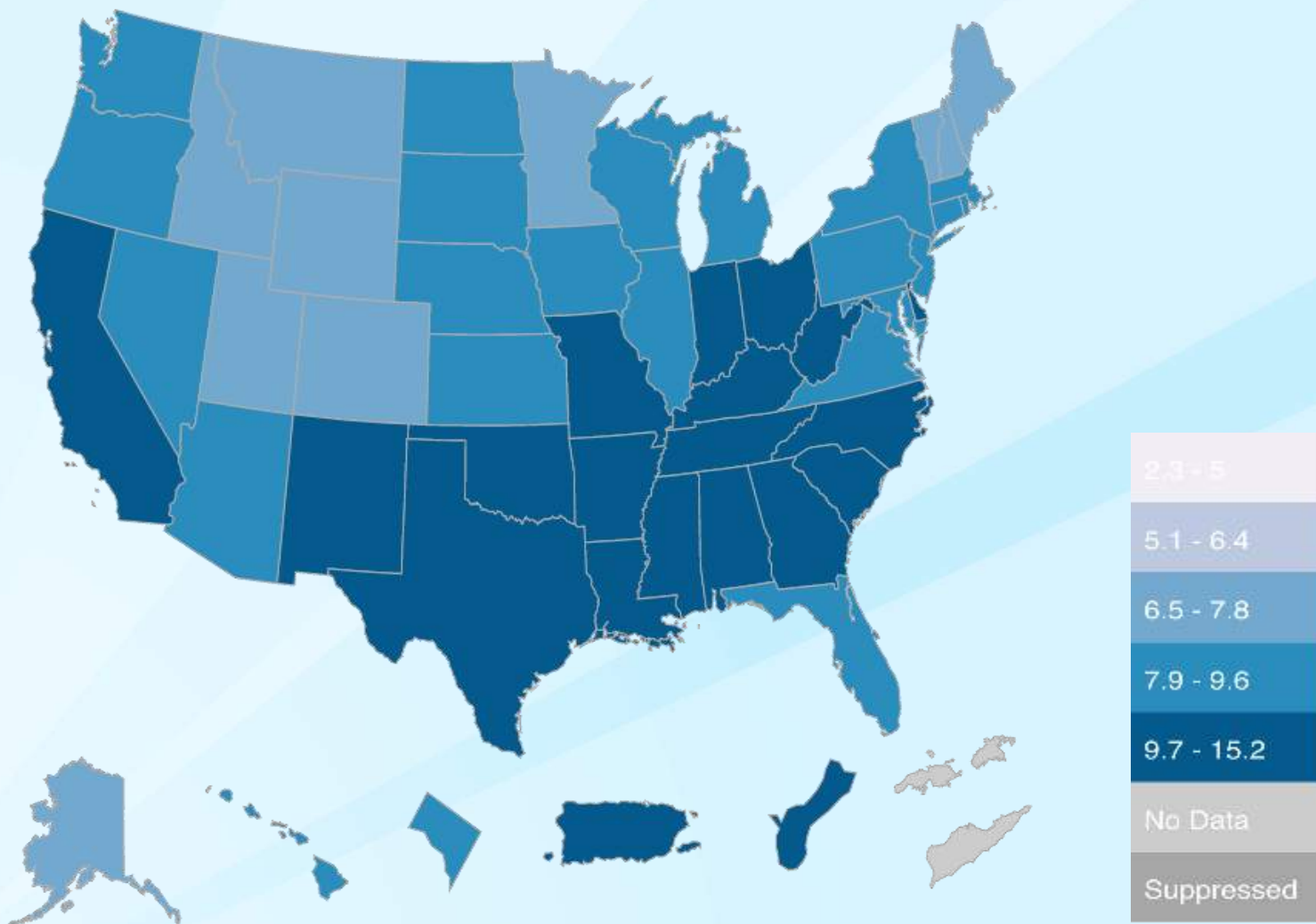
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2014



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

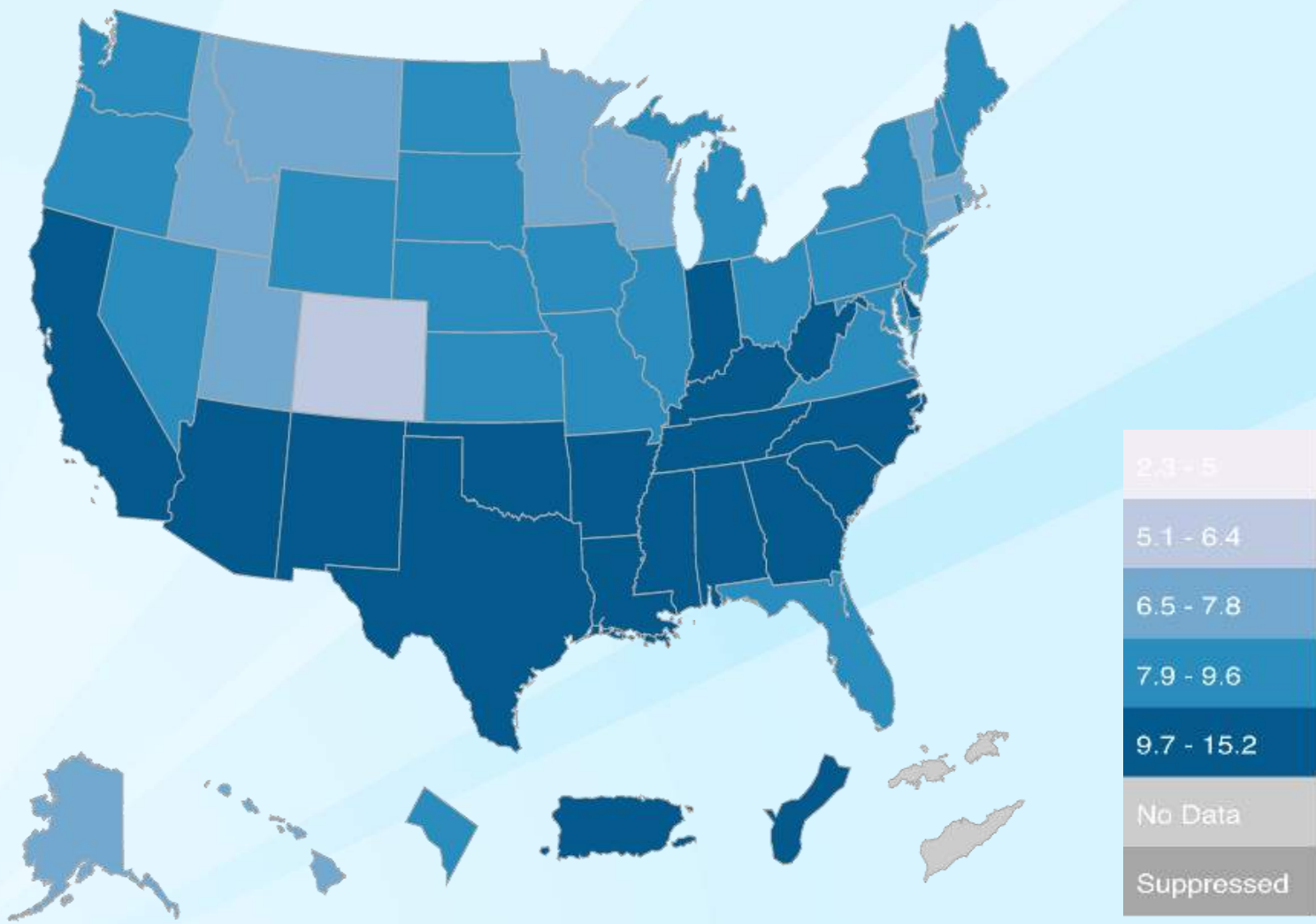
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National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



Diagnosed Diabetes, Age-Adjusted Percentage, Adults with Diabetes-Total, 2015



Source: www.cdc.gov/diabetes

Disclaimer: This is a user-generated report. The findings and conclusions are those of the user and do not necessarily represent the views of the CDC.

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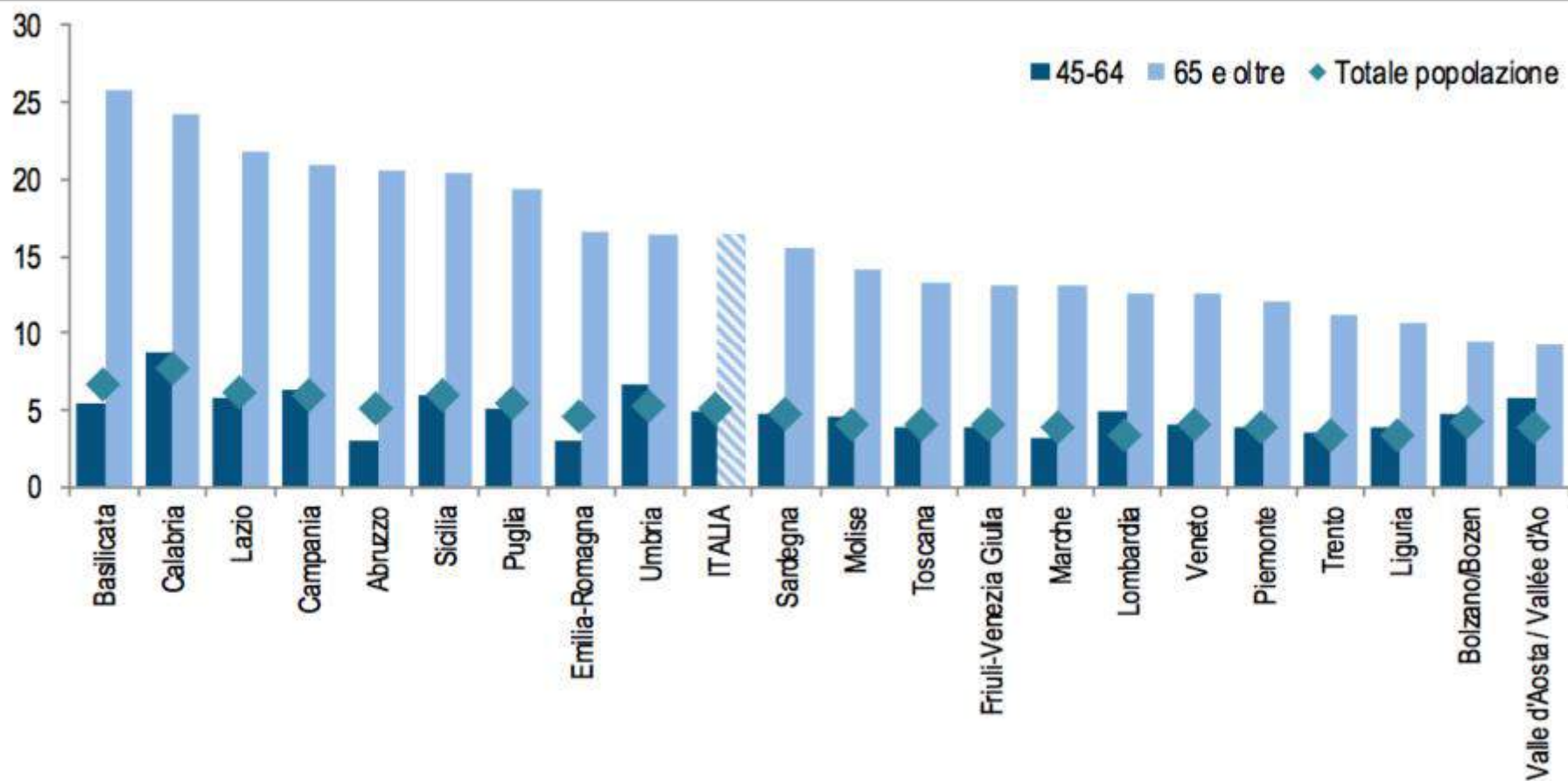
National Center for Chronic Disease Prevention and Health Promotion

Division of Diabetes Translation



DATI ISTAT 2016: PERSONE AFFETTE DA DIABETE NELLE REGIONI ITALIANE

FIGURA 4. PERSONE CHE DICHIARANO DI ESSERE AFFETTE DA DIABETE PER REGIONE E CLASSE DI ETÀ. Anno 2016, tassi standardizzati (per 100 persone con le stesse caratteristiche), graduatoria delle regioni ordinate per la classe di età 65 anni e oltre





CHRODIS

ADDRESSING CHRONIC DISEASES AND
HEALTHY AGEING ACROSS THE LIFE CYCLE

The logo consists of three interlocking circles in shades of green and blue, positioned to the left of the text.



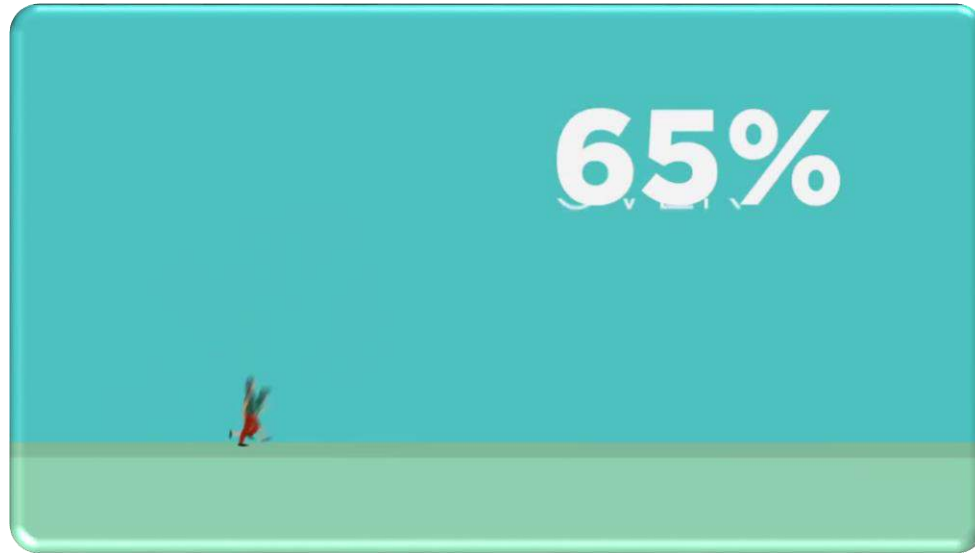


I Sistemi Sanitari in Europa stanno andando incontro a molteplici cambiamenti:

- una popolazione che invecchia
- l'aumento delle persone che soffrono di patologie croniche
- sempre più limitate risorse umane e finanziarie per le cure

Con l'età la prevalenza delle multimorbidità aumentano:

- ✓ sopra 65 anni → 65% ha molteplici patologie croniche
- ✓ sopra 85 anni → 85% ha molteplici patologie croniche





I Sistemi Sanitari in Europa stanno andando incontro a molteplici cambiamenti:

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Con l'età la prevalenza delle multimorbidità aumentano:

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- ✓ sopra 85 anni → 85% ha molteplici patologie croniche

Il Report conclude che solo le **CURE INTEGRATE** possono avere la capacità di rispondere alla sfida di fornire cure di alta qualità per il crescente numero di pazienti con multimorbilità in Europa





Per poter affrontare le principali patologie croniche questo approccio condivide i seguenti elementi comuni:

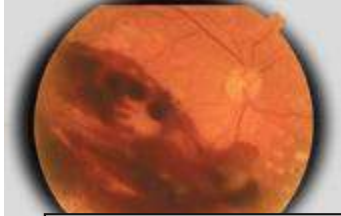
- centralità del paziente
- accento sul coordinamento delle cure
- miglioramento della collaborazione tra operatori sanitari
- un focus sui risultati



CURE INTEGRATE







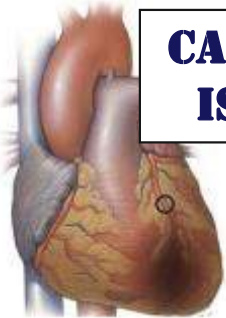
RETINOPATIA



NEFROPATIA



NEUROPATIA



**CARDIOPATIA
ISCHEMICA**



RETINOPATIA

**ALZHEIMER
DEMENTIA**



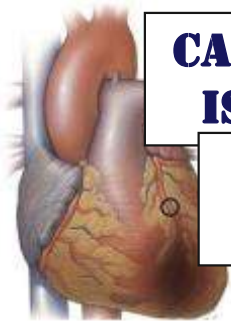
NEFROPATIA

CANCRO



**CARDIOPATIA
ISCHEMICA**

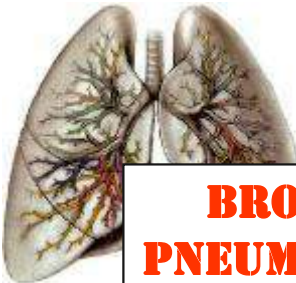
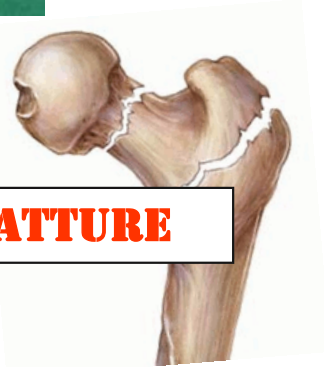
**SCOMPENSO
CARDIACO**



NEUROPATIA

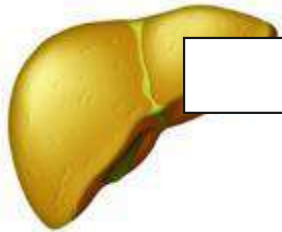


FRATTURE



**BRONCO-
PNEUMOPATIE**

NAFLD



CLINICAL PRACTICE

Glycemic Management of Type 2 Diabetes Mellitus

Faramarz Ismail-Beigi, M.D., Ph.D.

Glycated Hemoglobin Range		
Most Intensive Level, Approximately 6.0%	Factors	Least Intensive Level, Approximately 8.0%
Highly motivated, adherent, knowledgeable, strong self-care capability	Psychosocial considerations	Less motivated, nonadherent, less knowledge, weak self-care capability
Adequate	Resources or support systems	Inadequate
Low	Risk of hypoglycemia	High
Short	Duration of type 2 diabetes	Long
Long	Life expectancy	Short
None	Microvascular disease	Advanced
None	Cardiovascular disease	Established
None	Coexisting conditions	Multiple, severe, or both

Management of hyperglycaemia in type 2 diabetes: a patient-centered approach. Position statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD)

Reviews/Consensus Reports/ADA Statements

POSITION STATEMENT



Management of Hyperglycemia in Type 2 Diabetes: A Patient-Centered Approach

Position Statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD)

SILVIO E. INZUCCHI, MD¹
RICHARD M. BERGENSTAL, MD²
JOHN B. BUSE, MD, PHD³
MICHAELA DIAMANT, MD, PHD⁴
ELE FERRANNINI, MD⁵

MICHAEL NAUCK, MD⁶
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APOSTOLOS TSAPAS, MD, PHD⁸
RICHARD WENDER, MD⁹
DAVID R. MATTHEWS, MD, DPHIL^{10,11,12}

published online April 19, 2012

Approccio alla gestione dell'Iperglicemia:

più severo

meno severo

Atteggiamento del Paziente ed
aderenza al trattamento attesa

Rischi potenzialmente associati
all'Ipoglicemia e ad altri eventi
avversi

Durata della Malattia

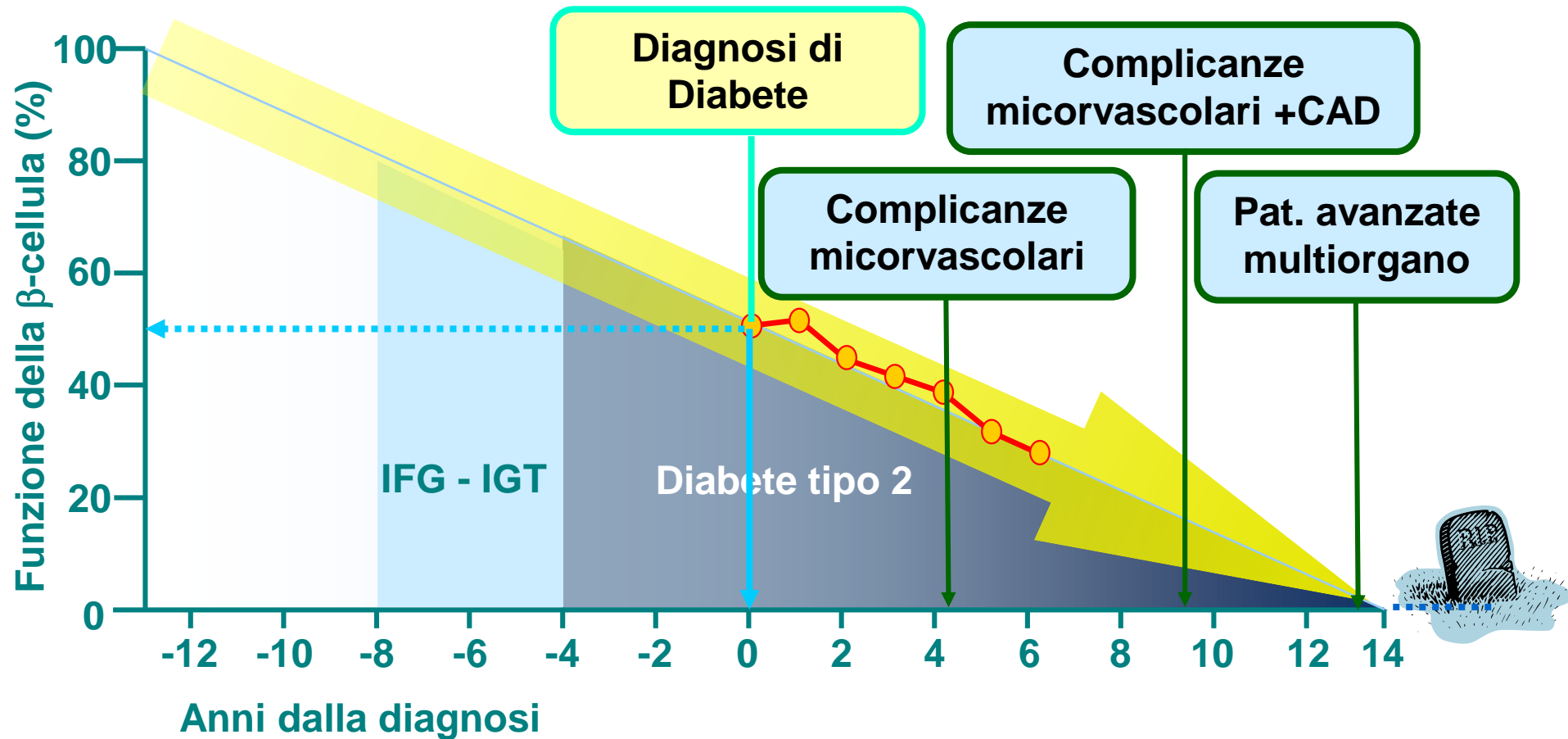
Aspettativa di vita

Importanti Comorbidità

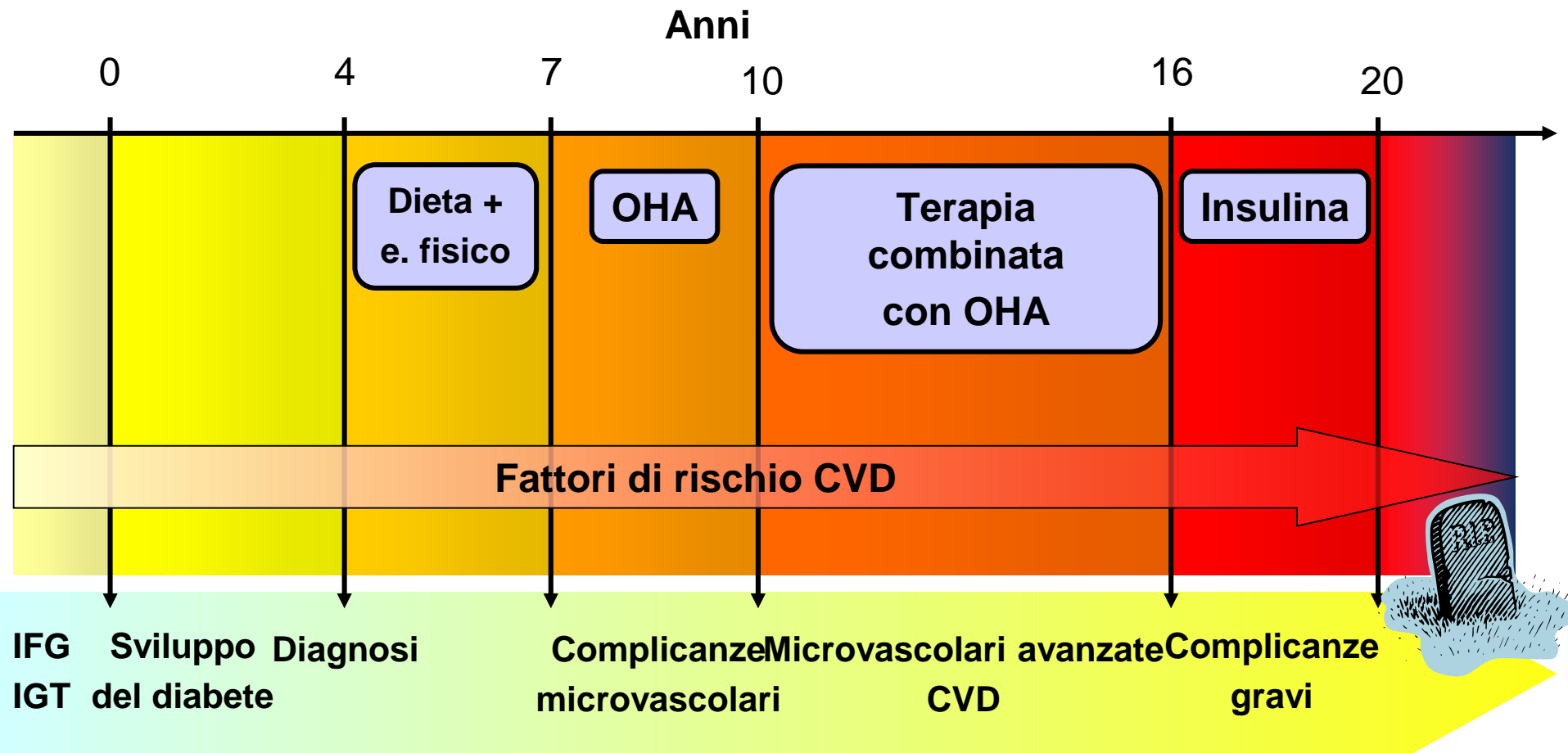
Presenza di complicanze
Vascolari

Risorse e sistemi di supporto

STORIA DEL DIABETE TIPO 2

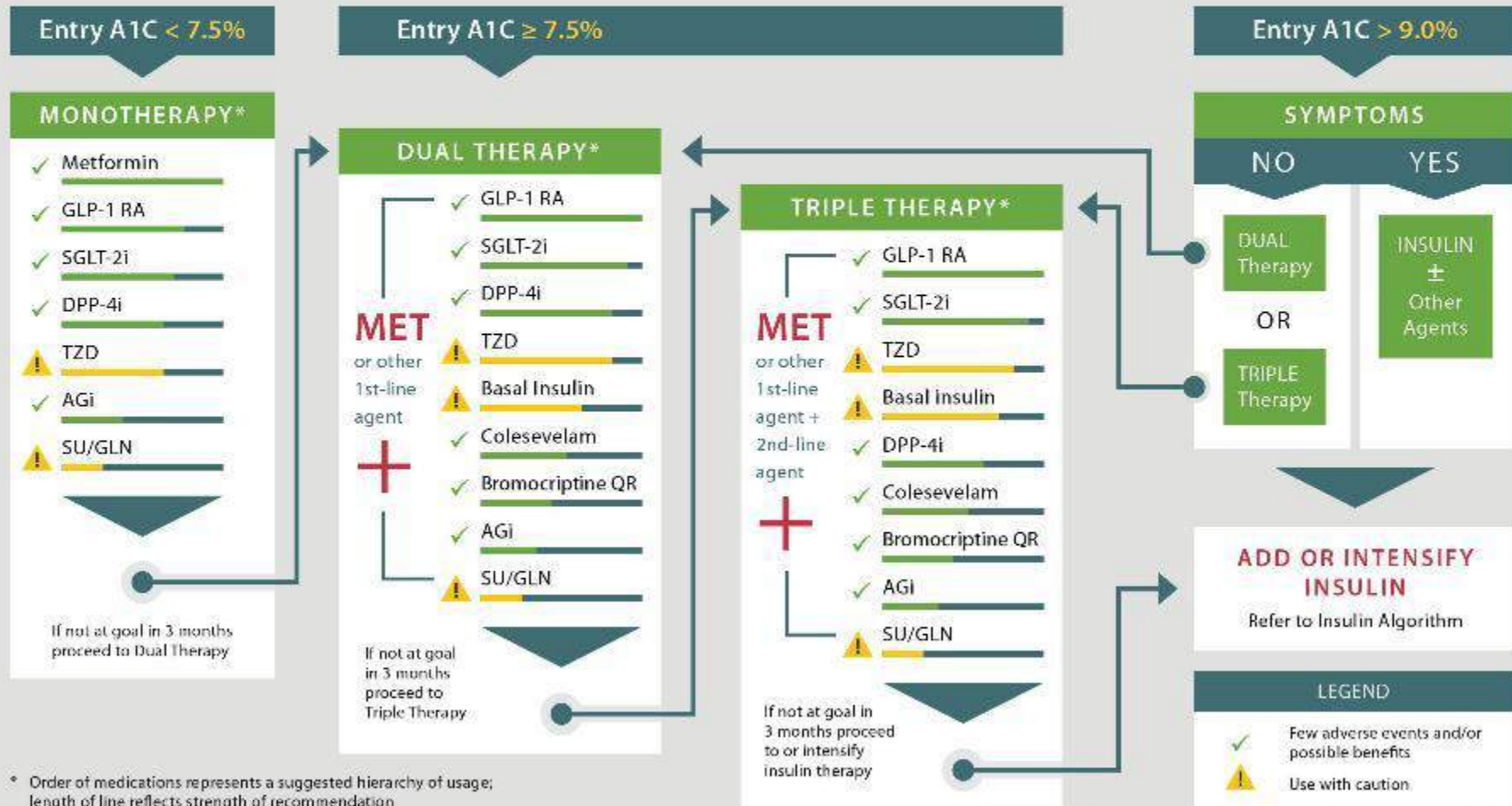


Approccio tradizionale della terapia



LIFESTYLE THERAPY

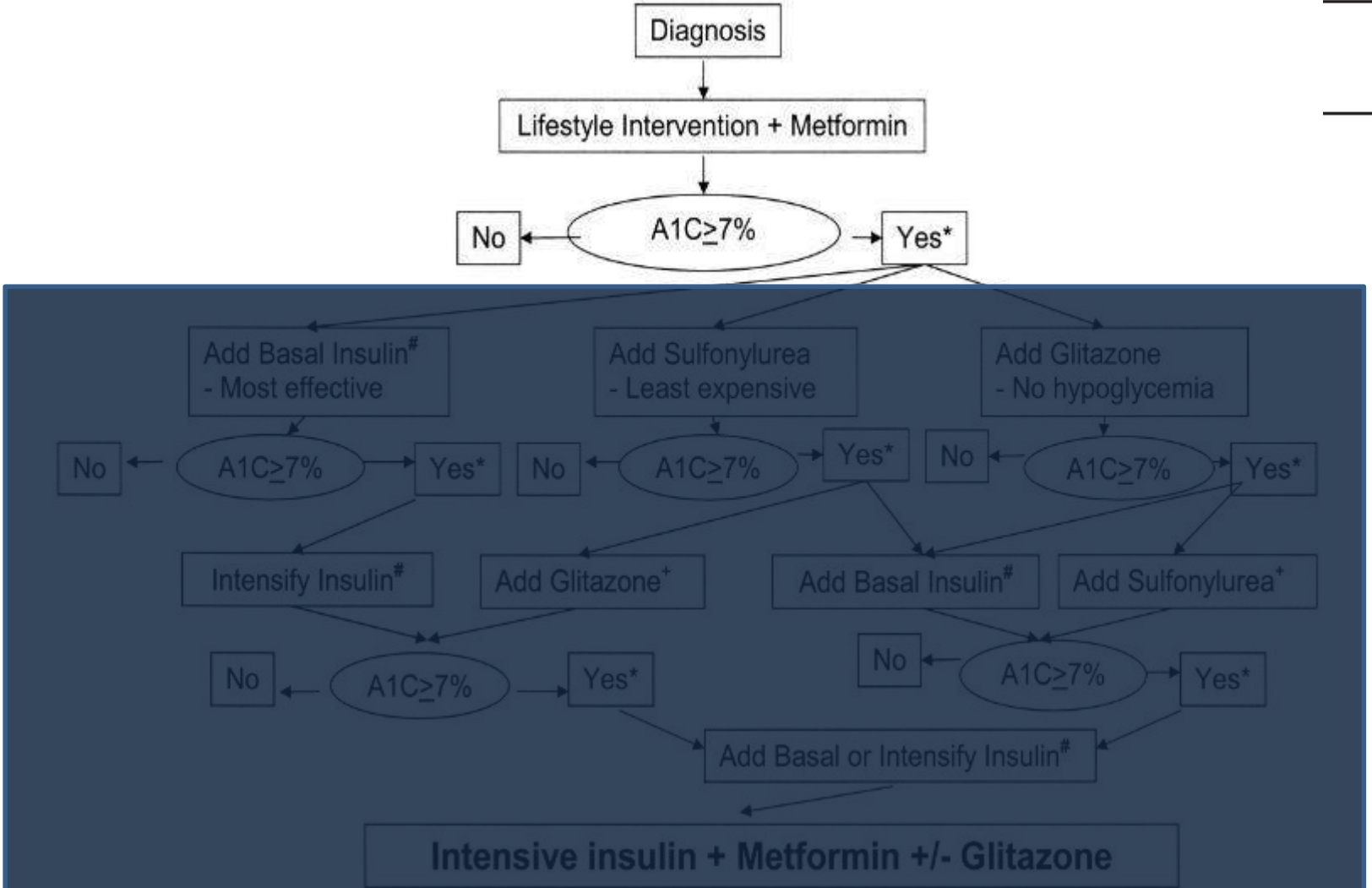
(Including Medically Assisted Weight Loss)



* Order of medications represents a suggested hierarchy of usage; length of line reflects strength of recommendation

PROGRESSION OF DISEASE

Management of Hyperglycemia in Type 2 Diabetes: A Consensus Algorithm for the Initiation and Adjustment of Therapy



PILLOLE DI BUONA PRATICA CLINICA

Non è indifferente con quale farmaco si controlla la glicemia: con METFORMINA la mortalità si riduce nel medio e nel lungo periodo rispetto all'uso di altri farmaci ipoglicemizzanti

(Holmann RR et al. N Eng J Med 2008;359:1577.)

Ad oggi il miglior abbinamento raccomandato che giustifica una diagnosi precoce è:

INTERVENTO SULLO STILE DI VITA E DIETA

+

METFORMINA 2gr/die



Metformina

CASO CLINICO



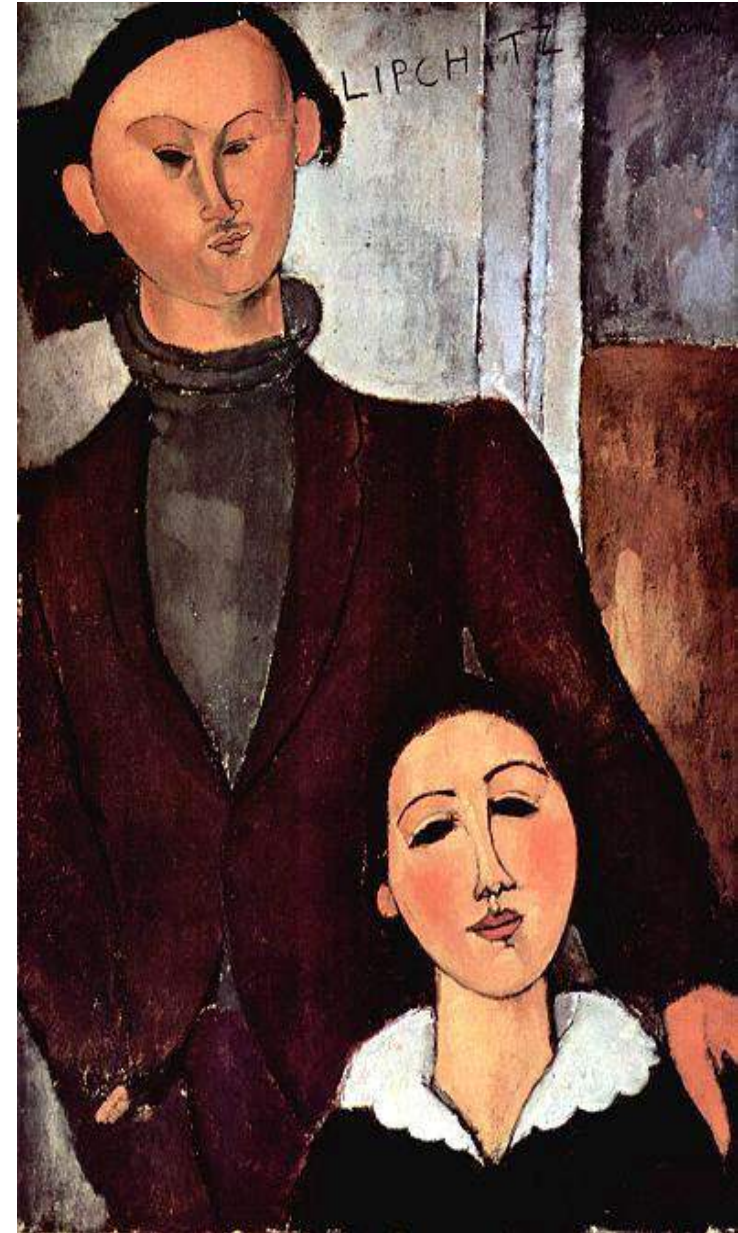
LA FAMIGLIA DOLCE

Dario e Giulia sono una giovane coppia che avete in carico da 5 anni, quando, dopo essersi sposati, si sono trasferiti nella vostra zona.

In questi anni li avete visti poco:

per lo più in seguito a banali problemi intercorrenti e per la prescrizione della terapia antiipertensiva (Ramipril 5mg) di Dario.

Sono due professionisti, sempre di fretta e di poche parole ...



“Jacques Lipchitz e sua moglie Bertha” di Modigliani del 1916

LA FAMIGLIA DOLCE

Dario ha 48 anni, fuma, ed ha una familiarità per Diabete Mellito Tipo 2 (Padre e Madre) ed il Padre è deceduto per Cardiopatia Ischemica all'età di 68 anni.

Peso: 83Kg

BMI: 26

Altezza: 178cm

Circonferenza vita: 98cm

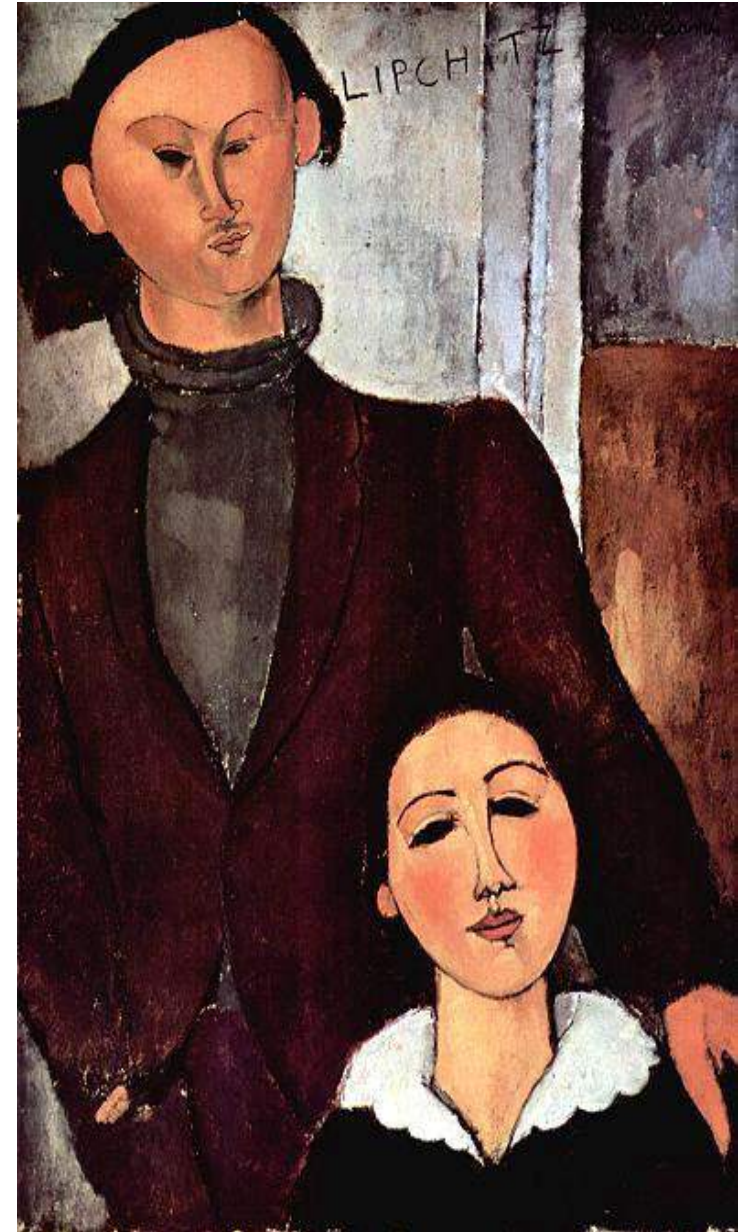
Giulia ha 40 anni, e una madre affetta da Ca mammario. Ha sofferto di Ansia con attacchi di panico ed assume saltuariamente ansiolitici.

Peso: 57Kg

BMI: 22

Altezza: 161cm

Circonferenza vita: 82cm

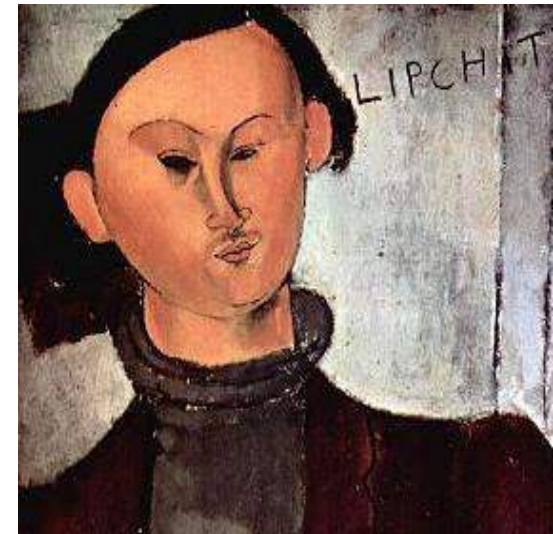


“Jacques Lipchitz e sua moglie Bertha” di Modigliani del 1916

LA FAMIGLIA DOLCE

Dario ha eseguito degli ematochimici di controllo per l'ipertensione arteriosa che generalmente è sempre stabile sui 140-130 / 90-85:

- Glicemia: 137 mg/dl
 - Creatininemia: 1,01 mg/dl
 - Colesterolo: 200 mg/dl
 - HDL: 35 mg/dl
 - Trigliceridi: 122 mg/dl
 - Uricemia: 5,6 mg/dl
 - Emocromo: normale
 - Sodio: 141 mmol/l
 - Potassio: 4,6 mmol/l
 - Urine Completo: normale
- LDL: 141 mg/dl



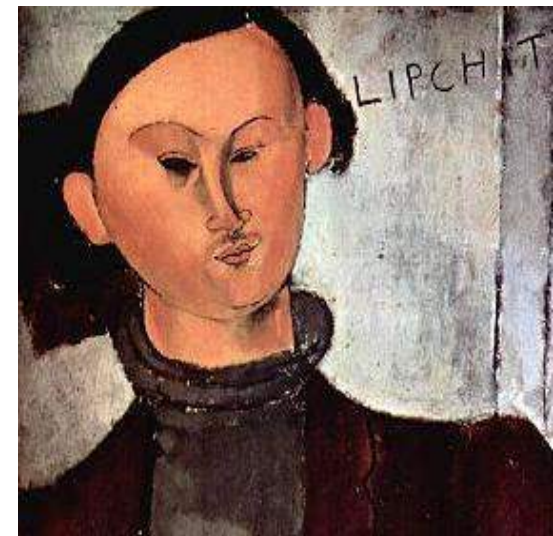
“Jacques Lipchitz e sua moglie Bertha” Particolare; di Modigliani del 1916

DOMANDA

COSA FATE?

- a) Gli esami vanno bene, è indicato un controllo tra 1 anno
- b) Gli esami non vanno bene

- Glicemia: 137 mg/dl
- Creatininemia: 1,01 mg/dl
- Colesterolo: 208 mg/dl
- HDL: 43 mg/dl LDL: 141
- Trigliceridi: 122 mg/dl
- Uricemia: 5,6 mg/dl
- Emocromo: normale
- Sodio: 141 mmol/l
- Potassio: 4,6 mmol/l
- Urine Completo: normale



“Jacques Lipchitz e sua moglie Bertha” Particolare; di Modigliani del 1916

DOMANDA

COSA FATE?

- a) Gli esami vanno bene, è indicato un controllo tra 1 anno
- b) Gli esami non vanno bene**

COSA FATE?

- a) Test da carico di glucosio (OGTT)
- b) Dico al Paziente che gli è venuto il Diabete Mellito tipo 2
- c) Faccio fare una dieta e poi ripeto gli esami
- d) Ripeto la Glicemia per conferma diagnostica

CRITERI DIAGNOSTICI PER DIABETE MELLITO

A. CRITERI DIAGNOSTICI



RACCOMANDAZIONI

In *assenza* dei sintomi tipici della malattia (poliuria, polidipsia e calo ponderale), la diagnosi di diabete deve essere posta con il riscontro, confermato in almeno due diverse occasioni di:

- glicemia a digiuno ≥ 126 mg/dl (con dosaggio su prelievo eseguito al mattino, alle ore 8 circa, dopo almeno 8 ore di digiuno)

oppure

- glicemia ≥ 200 mg/dl 2 ore dopo carico orale di glucosio (eseguito con 75 g)

(Livello della prova III, Forza della raccomandazione A)

oppure

- $HbA_{1c} \geq 6,5\%$ (solo con dosaggio standardizzato secondo raccomandazioni di cui a pag. 30)

(Livello della prova III, Forza della raccomandazione A*)

* A condizione che il dosaggio dell' HbA_{1c} sia standardizzato, allineato a IFCC e che si tenga conto dei fattori che possono interferire con il dosaggio della glicata.

In *presenza* di sintomi tipici della malattia, la diagnosi di diabete deve essere posta con il riscontro, anche in una sola occasione di:

- glicemia casuale ≥ 200 mg/dl (indipendentemente dall'assunzione di cibo).

(Livello della prova III, Forza della raccomandazione A)

✓ Glicemia ripetuta: 131 mg/dl



Diabete Mellito Tipo 2

DOMANDA

Cosa facciamo per Dario?

1. Terapia ✓ Sì
2. Altri esami ✓ No
3. Visita Specialistica ✓ Sì

INTERVENTO SULLO STILE DI VITA E DIETA

+

METFORMINA 2gr/die

1. **Metformina 500mg**
1\2c a pranzo e 1\2c a cena
da aumentare ogni 3-5 gg di 1\2c fino a 1cx2/die

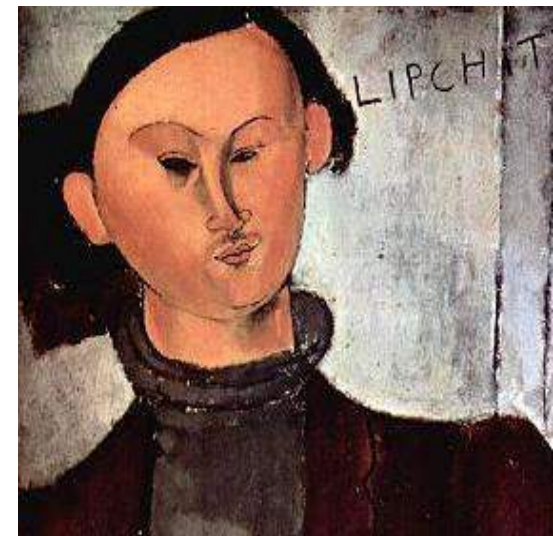
2. **Ematochimici:**

- Glicemia
- Emoglobina Glicata (HbA1c)
- Microalbuminuria
- ALT, GGT
- CPK

ECG + Fundus Oculi

3. **Visita Diabetologica**

Per inizio della Gestione Integrata, inserimento nel RRD ed
esenzione



“Jacques Lipchitz e sua moglie Bertha” Particolare; di Modigliani del 1916

LA FAMIGLIA DOLCE



Dopo 15 giorni Dario viene a visita:

- Glicemia: 145mg/dl
 - Emoglobina Glicata (HbA1c): 7,2%
 - Microalbuminuria: 0,2
 - ALT, GGT: nn
 - CPK: nn
- ECG: nella norma
Pa: 140/85 mmHg
Fundus Oculi: non ancora eseguito

Riferisce che la terapia va bene e che è arrivato ad assumere:

Metformina 500: 1c a pranzo 1c cena

Table 1. Statin doses considered equipotent in total cholesterol reduction

Dose level	% reduction in total cholesterol	Type & dose of statin (mg/day)					
		Pravastatin	Lovastatin	Fluvastatin	Simvastatin	Atorvastatin	Rosuvastatin
Low	6-15	5	-	10	-	-	-
	15-17	10	10	20	5	2.5	-
	22	20	20	40	10	5	-
	27	40	40	80	20	10	5
Low-High Threshold		≥60	≥50	≥120	≥30	≥15	≥7.5
High	32	80	60, 80	160	40	20	10
	37	160	-	-	80	40	20
	42	-	-	-	-	80	40

Adapted from Penning-van Beest *et al.*²⁶, Maron *et al.*²⁷, and Illingworth and Tobert²⁸

Cosa facciamo?

- **Aumentiamo la Metformina:**

Metformina 500mg

1c colazione + 1c pranzo + 1c cena

poi

Metformina 500 + 850 + 850

- **Aumentiamo il dosaggio dell'antipertensivo**

- **Aggiungiamo la Statina**

Controllo clinico tra 15-30 giorni ed esami tra 3 mesi

TARGET METABOLICI

HbA_{1c}:

<7,0%
(alcuni Pz 6,5%)



Tabella 9
Obiettivi glicemici in diabetici adulti di tipo 1 e 2

HbA _{1c} < 7,0%* (< 6,5% in singoli pazienti)
Glicemia a digiuno e pre-prandiale 70-130 mg/dl
Glicemia post-prandiale [§] < 180 mg/dl ^{§#}

* Facendo riferimento ai valori di 4,0-6,0% della popolazione non diabetica, con il metodo utilizzato dal DCCT.

[§] La misurazione della glicemia post-prandiale deve essere effettuata 2 ore dopo l'inizio del pasto.

[#] Valori post-prandiali < 140 mg/dl sono perseguibili nel diabete tipo 2 (IDF 2007).



INDIVIDUALIZE GOALS

$A1C \leq 6.5\%$

For patients without
concurrent serious
illness and at low
hypoglycemic risk

$A1C > 6.5\%$

For patients with
concurrent serious
illness and at risk
for hypoglycemia

TARGET METABOLICI



Tabella 9
Obiettivi glicemici in diabetici adulti di tipo 1 e 2

HbA _{1c} < 7,0%* (< 6,5% in singoli pazienti)
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[#]Valori post-prandiali < 140 mg/dl sono perseguibili nel diabete tipo 2 (IDF 2007).

HbA_{1c}: <7,0%
(alcuni Pz 6,5%)

Glic. Digiuno: 70-130 mg/dl

Glic. post-P.: <140 mg/dl

Col. Totale: <175 mg/dl

Col. LDL: <100 mg/dl

Col. HDL: >40 mg/dl

Triglicer.: <150 mg/dl

PAS: <130 mmHg

PAD: <80 mmHg



Obiettivi

Il colesterolo LDL deve essere considerato l'obiettivo primario della terapia e l'obiettivo terapeutico da raggiungere è rappresentato da valori < 100 mg/dl. **(Livello della prova I, Forza della raccomandazione A)**

Nei diabetici con malattia cardiovascolare e fattori multipli di rischio cardiovascolare non correggibili, valori di colesterolo LDL < 70 mg/dl possono rappresentare un obiettivo terapeutico opzionale. **(Livello della prova II, Forza della raccomandazione B)**

3. Dislipidemia e suo trattamento

RACCOMANDAZIONI

Ulteriore obiettivi della terapia sono il raggiungimento di valori di trigliceridi < 150 mg/dl e di colesterolo HDL > 40 mg/dl nell'uomo e > 50 mg/dl nella donna. **(Livello della prova III, Forza della raccomandazione B)**

Il colesterolo non HDL può essere utilizzato come obiettivo secondario (30 mg in più rispetto ai valori di colesterolo LDL) in particolare nei diabetici con trigliceridemia superiore a 200 mg/dl. **(Livello della prova III, Forza della raccomandazione B)**

4. Ipertensione e suo trattamento

RACCOMANDAZIONI

Obiettivi

Il trattamento antipertensivo nei pazienti con diabete ha come obiettivo il raggiungimento di valori di pressione sistolica < 130 mmHg. **(Livello della prova III, Forza della raccomandazione B)**

Il trattamento antipertensivo nei pazienti con diabete ha come obiettivo il raggiungimento di valori di pressione diastolica < 80 mmHg. **(Livello della prova II, Forza della raccomandazione B)**

Un obiettivo pressorio < 125/75 mmHg è raccomandato nei soggetti diabetici con proteinuria > 1 g/die. **(Livello della prova II, Forza della raccomandazione B)**

RACCOMANDAZIONI

Gli operatori sanitari devono consigliare a tutte le persone con diabete la sospensione del fumo di sigaretta. **(Livello della prova I, Forza della raccomandazione A)**

LA FAMIGLIA DOLCE

Dopo 15 giorni il Paziente torna a visita riferendo che da alcuni gironi ha mal di pancia e deve sempre andare in bagno di corpo.

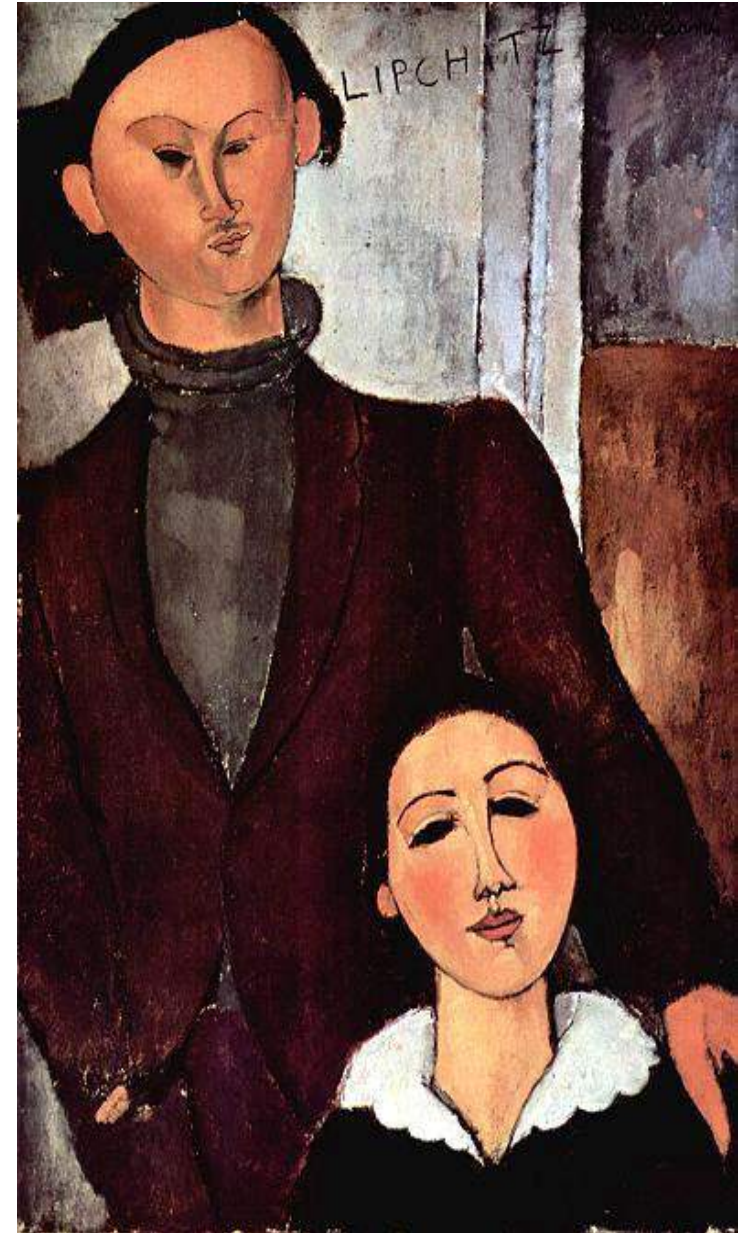
Cosa succede?

Sta assumendo Metformina 500mg
1c colazione + 1c pranzo + 1c cena

Cosa facciamo?

Sostituisco la Metformina con un
altro insulino-sensibilizzante:

- **Glitazone:** posso fare da solo
- **Nuovi Farmaci** → al Diabetologo



“Jacques Lipchitz e sua moglie Bertha” di Modigliani del 1916



PROFILES OF ANTIDIABETIC MEDICATIONS



	MET	GLP-1 RA	SGLT-2i	DPP-4i	AGi	TZD (moderate dose)	SU GLN	COLSVL	BCR-QR	INSULIN	PRAML
HYPO	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate/ Severe Mild	Neutral	Neutral	Moderate to Severe	Neutral
WEIGHT	Slight Loss	Loss	Loss	Neutral	Neutral	Gain	Gain	Neutral	Neutral	Gain	Loss
RENAL / GU	Contraindicated if eGFR < 30 mL/min/1.73 m ²	Exenatide Not Indicated CrCl < 30 Possible Benefit of Liraglutide	Not Indicated for eGFR < 45 mL/min/1.73 m ² Genital Mycotic Infections Possible Benefit of Empagliflozin	Dose Adjustment Necessary (Except Linagliptin) Effective in Reducing Albuminuria	Neutral	Neutral	More Hypo Risk	Neutral	Neutral	More Hypo Risk	Neutral
GI Sx	Moderate	Moderate	Neutral	Neutral	Moderate	Neutral	Neutral	Mild	Moderate	Neutral	Moderate
CHF	Neutral	Possible Benefit of Liraglutide	Possible Benefit of Empagliflozin	Possible Risk for Saxagliptin and Alogliptin	Neutral	Moderate	More CHF Risk	Neutral	Neutral	More CHF Risk	Neutral
CARDIAC*		Possible CV Benefit	Possible CV Benefit	Neutral		May Reduce Stroke Risk	?	Benefit	Safe	Neutral	
ASCVD											
BONE	Neutral	Neutral	Canagliflozin Warning	Neutral	Neutral	Moderate Fracture Risk	Neutral	Neutral	Neutral	Neutral	Neutral
KETOACIDOSIS	Neutral	Neutral	DKA Occurring in T2D in Various Stress Settings	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral

■ Few adverse events or possible benefits
 ■ Use with caution
 ■ Likelihood of adverse effects
 ? Uncertain effect
 ⓘ FDA indication to prevent CVD death in diabetes plus prior CVD events

LA FAMIGLIA DOLCE

A questo punto anche Giulia chiede di fare gli esami ematochimici come «controllo»!

Oltretutto di recente accusa una maggiore stanchezza ed ha sempre sete.

- Glicemia: 332 mg/dl
- Creatininemia: 0,9 mg/dl
- Colesterolo: 300 mg/dl
- HDL: 45 mg/dl Col. non HDL: 255 mg/dl
- Trigliceridi: 1263 mg/dl
- Uricemia: 3,6 mg/dl
- Emocromo: normale
- Sodio: 140 mmol/l
- Potassio: 3,9 mmol/l
- Urine Completo: Ketonuria e Glicosuria

Diabete Mellito Tipo 1 all'esordio

Indicata Visita Diabetologica Urgente

Quale terapia se la vedono entro le 48 ore? → Abbondante idratazione

Quale terapia se non la vedono in 48 ore! → Terapia insulinica intensiva

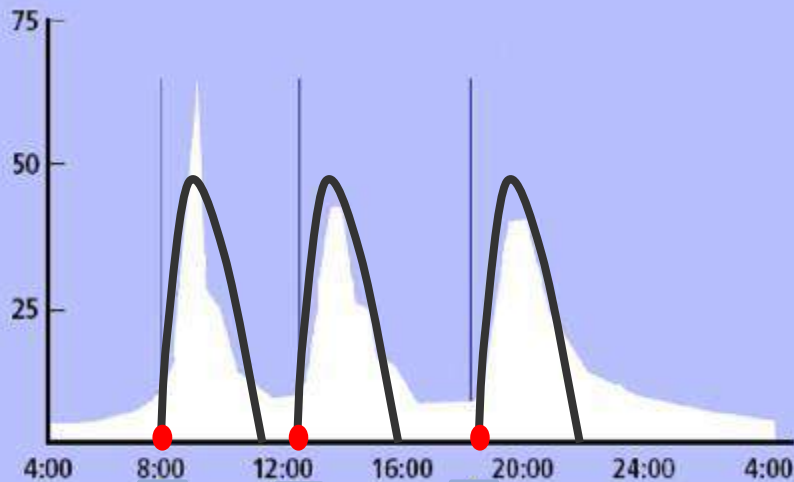


“Jacques Lipchitz e sua moglie Bertha” Particolare; di Modigliani del 1916

DOMANDA

Cosa prescriviamo?

Insulina rapida ai 3 pasti:



LA POSOLOGIA COMPLESSIVA DI INSULINA È COMPRESA TRA 0,5 ED 1 U/KG DIE DI CUI:

- 0,15 – 0,20 U/Kg die a pranzo e cena
- 0,05 – 0,10 U/kg a colazione
- 0,20 – 0,25 u/Kg di Lenta prima di coricarsi

Peso: 54Kg (-3Kg)

Quale dosaggio?

0,1U/Kg Colazione

4-6U a Colazione

0,2U/Kg Pranzo

8-10U a Pranzo

0,2U/Kg Cena

8-10U a Cena

Monitoraggio della glicemia capillare

colazione



pranzo



cena

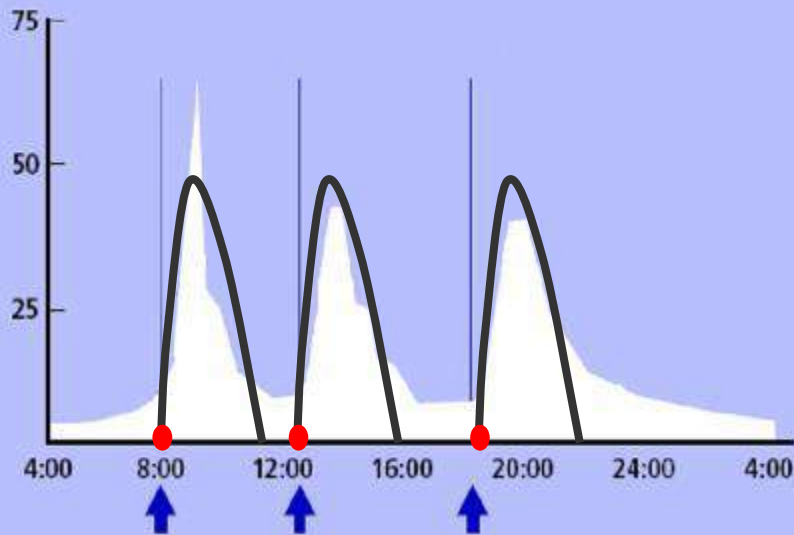


“Jacques Lipchitz e sua moglie Bertha” Particolare; di Modigliani del 1916

DOMANDA

Cosa prescriviamo?

Analogo rapido ai 3 pasti:



LA POSOLOGIA COMPLESSIVA DI INSULINA È COMPRESA TRA 0,5 ED 1 U/KG DIE DI CUI:

- 0,15 – 0,20 U/Kg die a pranzo e cena
- 0,05 – 0,10 U/kg a colazione
- 0,20 – 0,25 u/Kg di Lenta prima di coricarsi

Peso: 54Kg (-3Kg)



Quale Insulina?

Meglio un Analogo



ritengono che, ad oggi, non esistano evidenze scientifiche significative che dimostrino differenze tra le insuline glulisina (Apidra®), lispro (Humalog®) e aspart (NovoRapid®)

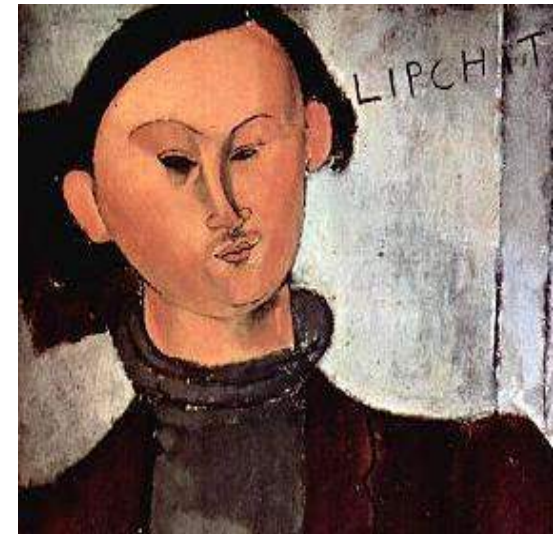
LA FAMIGLIA DOLCE

Passano 15 anni e..

...nonostante il dosaggio massimo di Ipoglicemizzanti orali, il compenso di Dario peggiora progressivamente.

Gli ultimi esami fatti mostrano:

- Glicemia: 163 mg/dl
- Creatininemia: 1,1 mg/dl
- Colesterolo: 181 mg/dl
- HDL: 55 mg/dl
- Trigliceridi: 135 mg/dl
- Uricemia: 5,6 mg/dl
- Emocromo: normale
- Sodio: 139 mmol/l
- Potassio: 4,0 mmol/l
- Urine Completo: normale
- Emoglobina Glicata (HbA1c): 8,1 %
- Microalbuminuria: 15,7 mg/dl
- ALT, GGT: normali
- CPK: 84 U/l



“Jacques Lipchitz e sua moglie Bertha” Particolare; di Modigliani del 1916

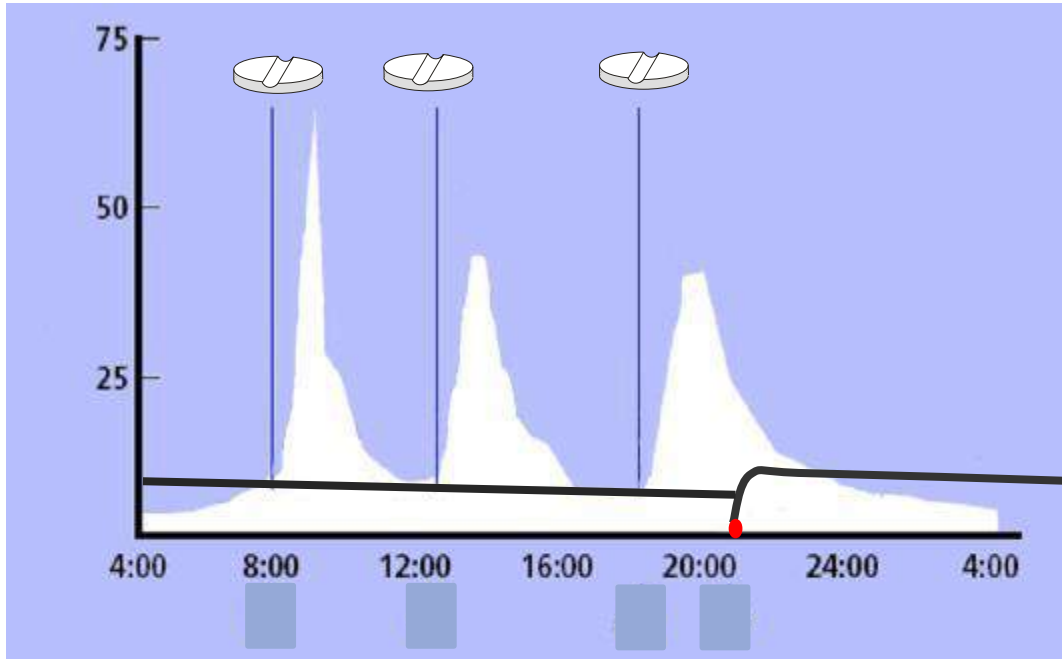
DOMANDA

Cosa facciamo per Dario?

Aggiungiamo Insulina Analogo Lento:

LA POSOLOGIA COMPLESSIVA DI INSULINA È COMPRESA TRA 0,5 ED 1 U/KG DIE DI CUI:

- 0,15 – 0,20 U/Kg die a pranzo e cena
- 0,05 – 0,10 U/kg a colazione
- 0,20 – 0,25 u/Kg di Lenta prima di coricarsi

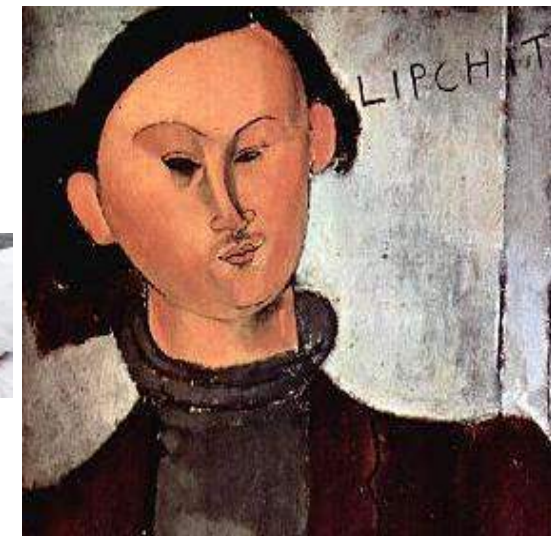


Peso: 85Kg

Quale dosaggio?

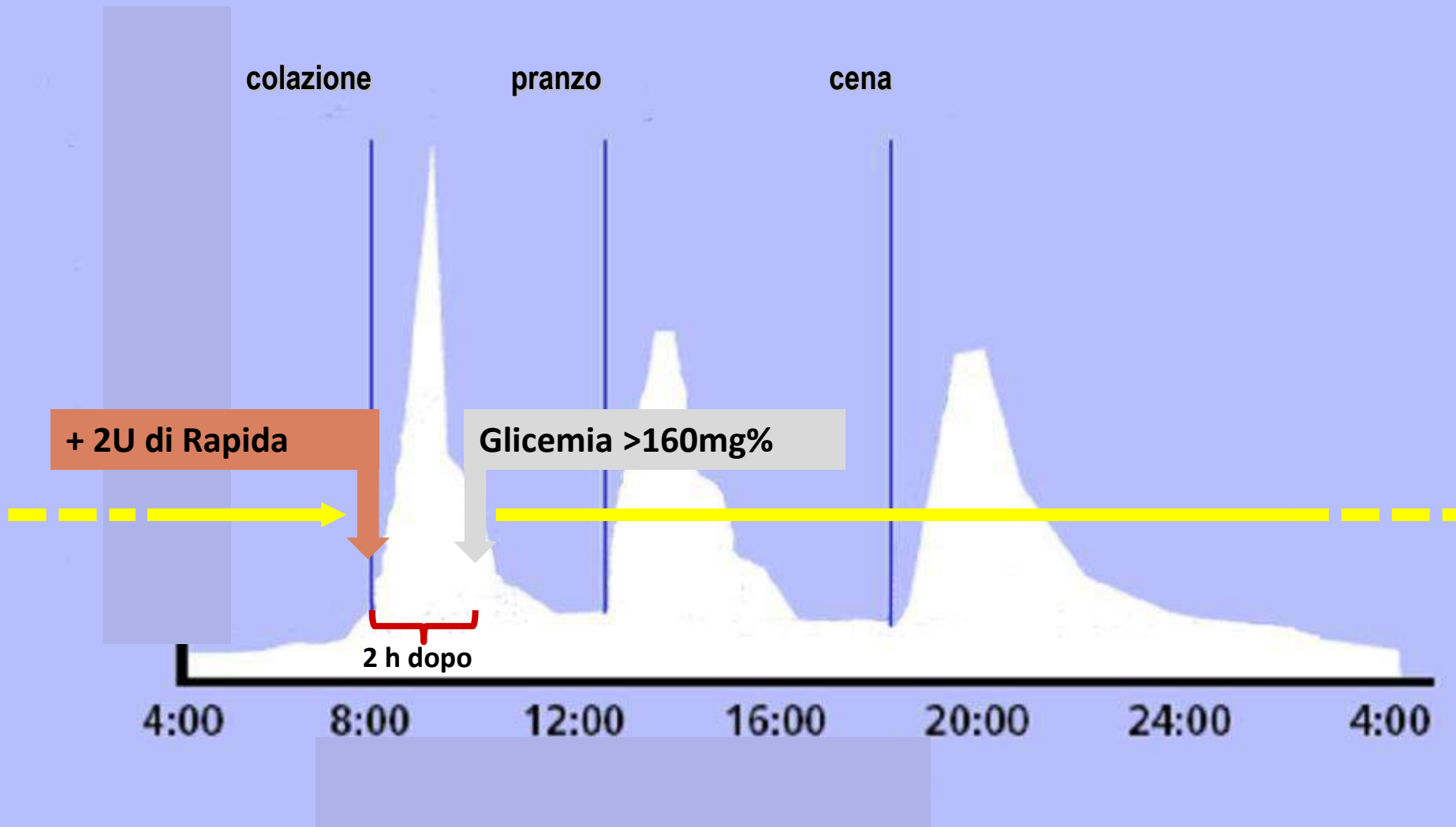
0,20 – 0,25 U/Kg «*Bed Time*» **14-16U** prima di dormire

Quale Insulina?

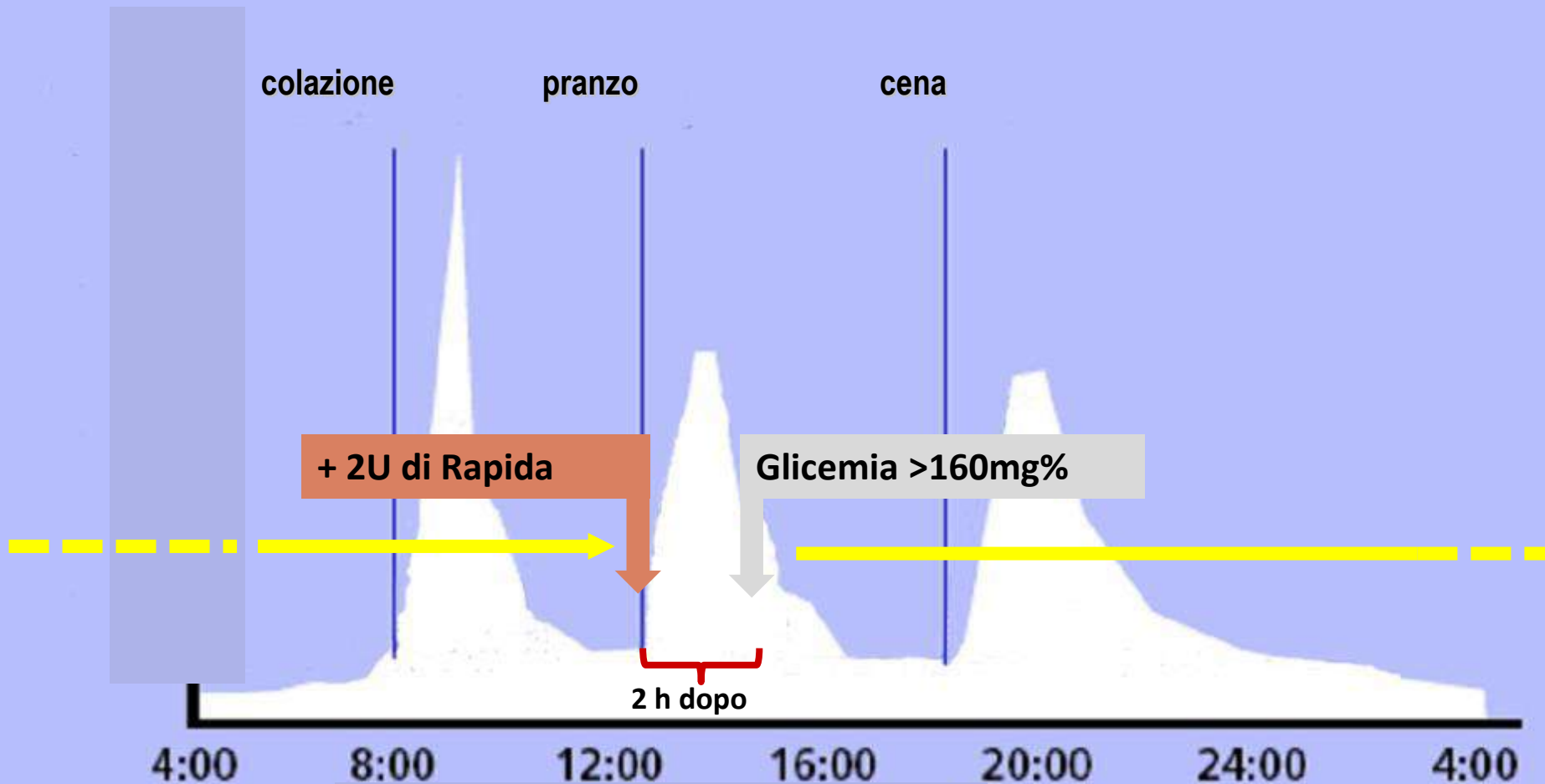


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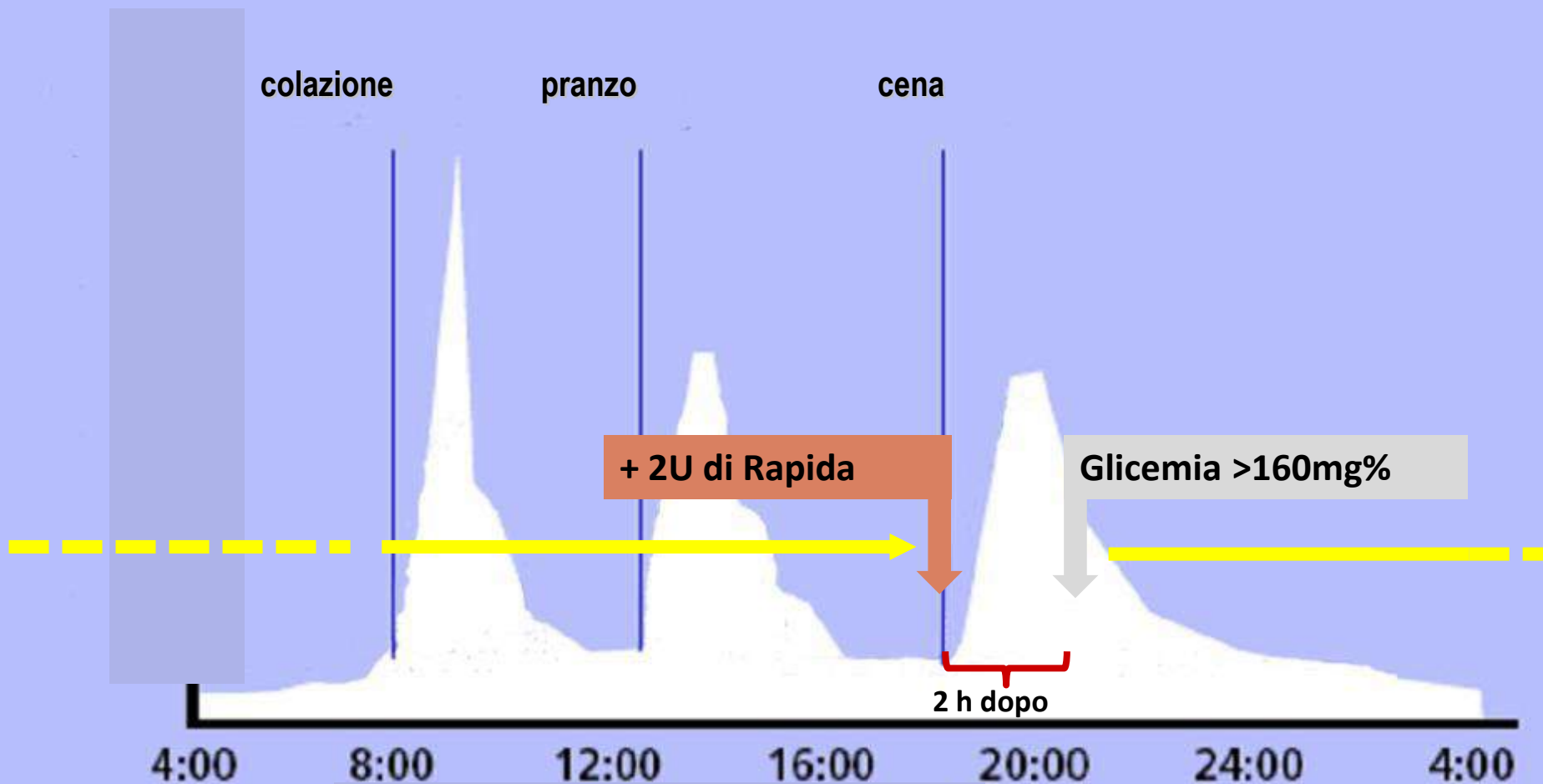
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