Social Determinants of Health and Diabetes

Outcomes from the Introduction of a SDOH Screening Tool at an FQHC

Dr. Michael Colli March 6, 2020



Disclosures

• I have no relevant financial interests pertaining to this CME activity to disclose.

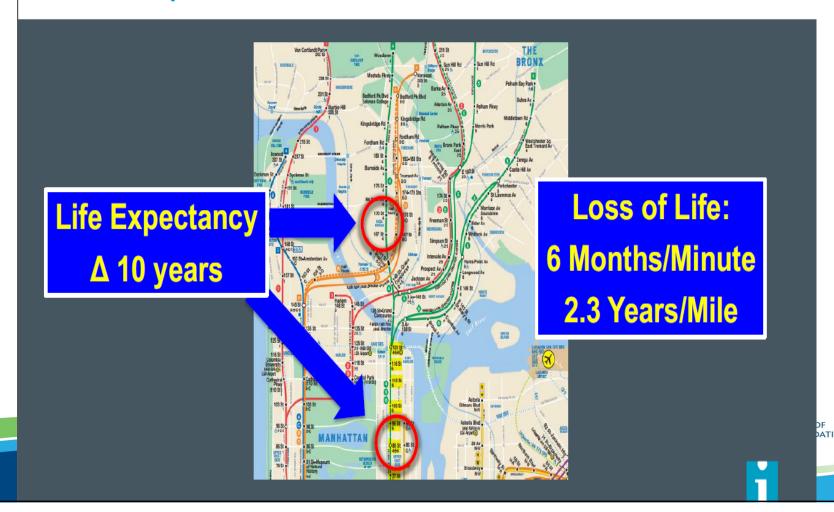


Social Determinants of Health and Diabetes - Goals

- 1. Understand what SDOH are.
- 2. Understand the impact of SDOH at a societal level.
- 3. How SDOH impact human physiology.
- 4. Evaluate the findings from a SDOH screening program at Keystone Health.



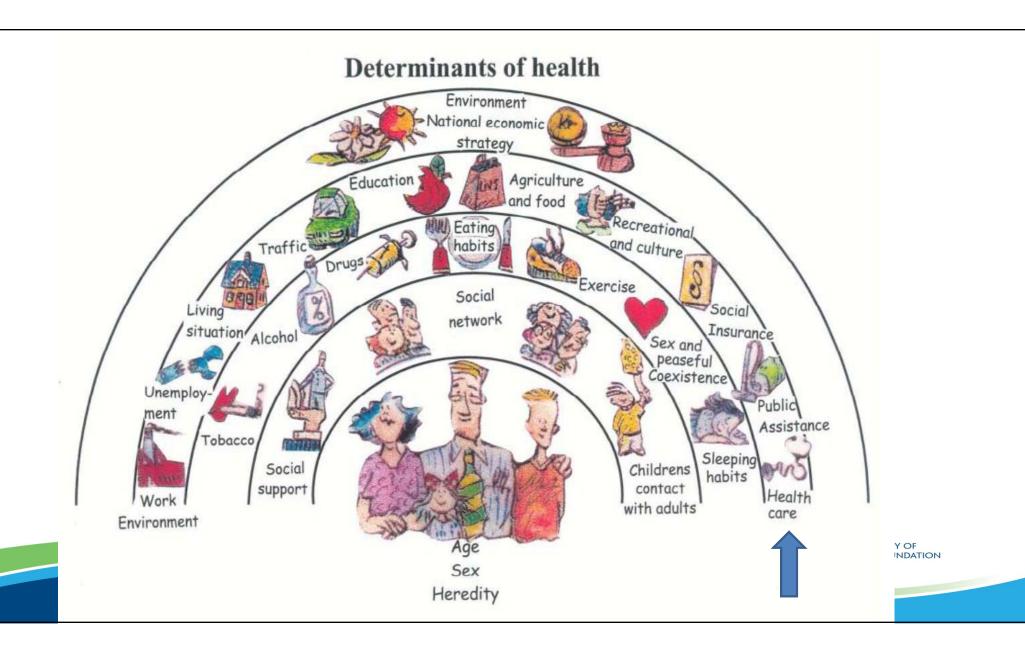
Life Span and Life Circumstances



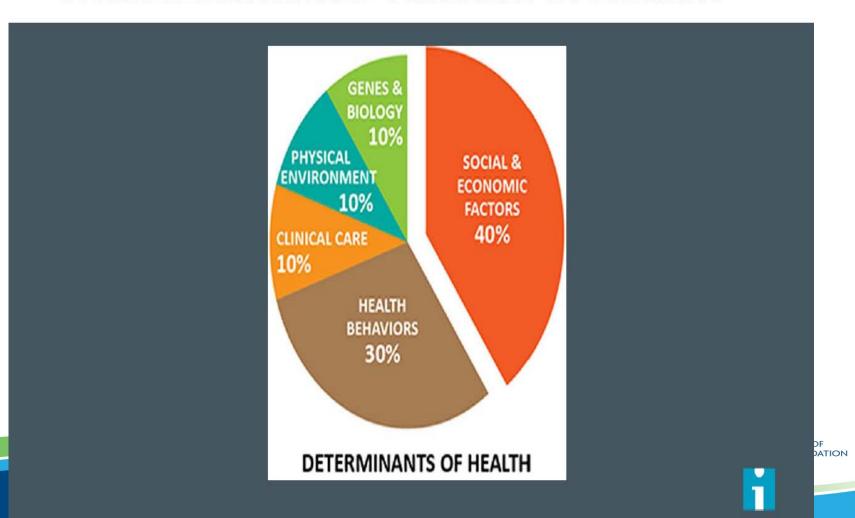
What are Social Determinants?

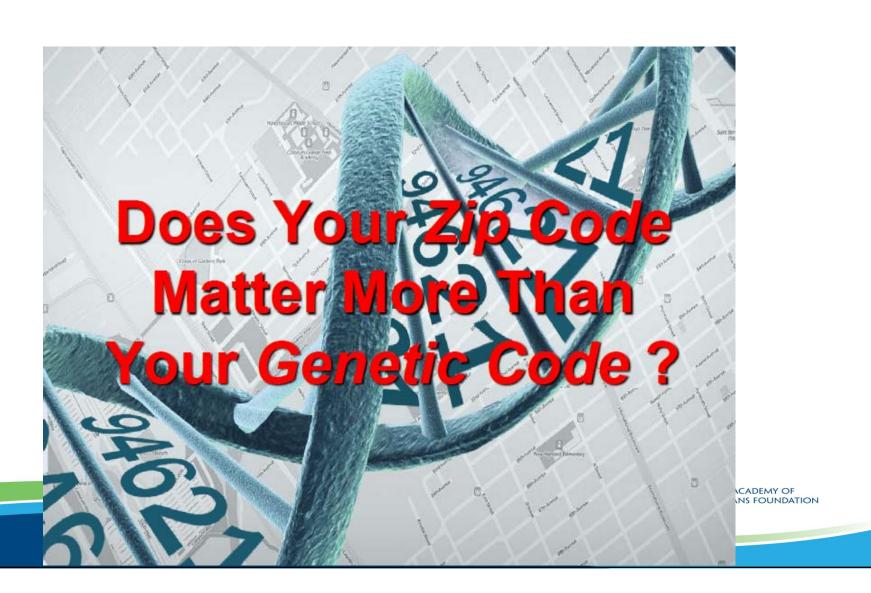
- WHO Definition: Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
- **Dr. Colli Definition:** The Non-Healthcare related factors that impact our Physical and Emotional Well-Being.





What Determines Variation in Health?

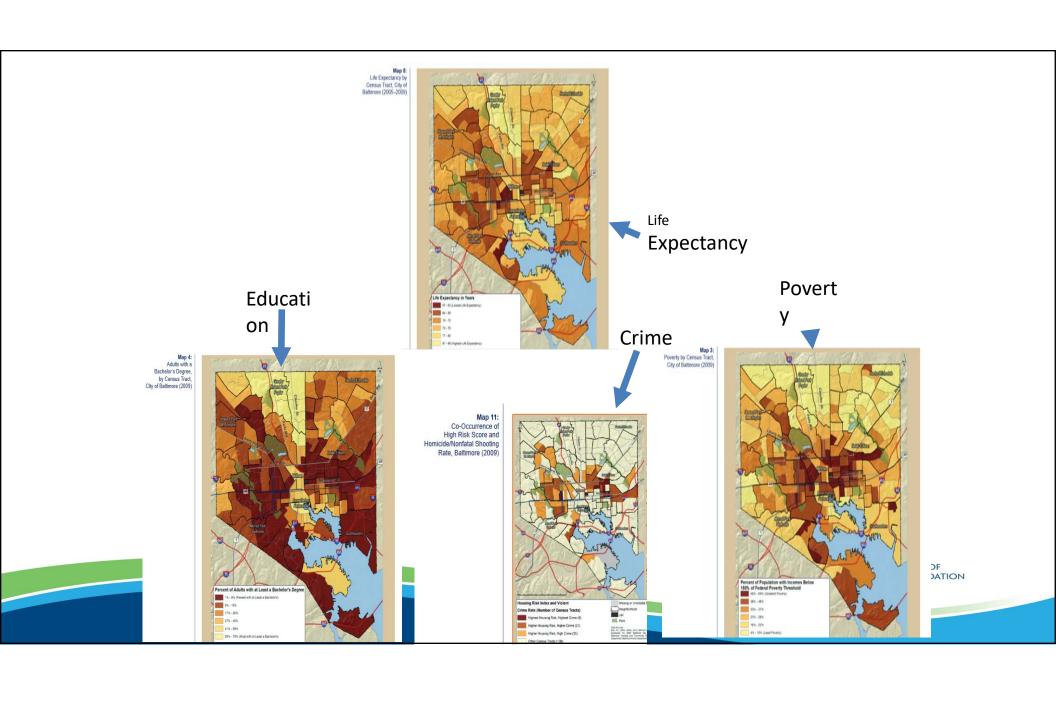




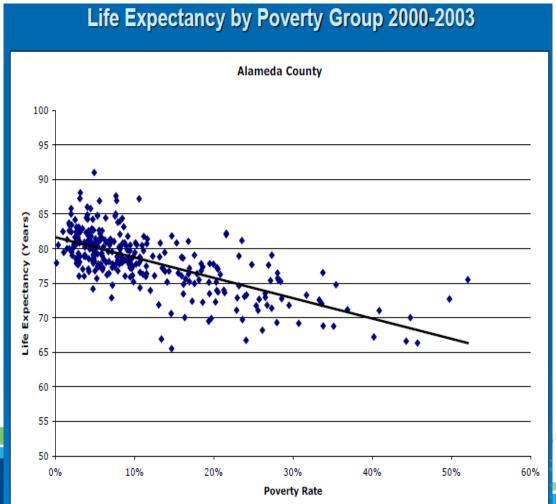
Consider Baltimore



isylvania academy of Ly physicians foundation



Poverty and Life Expectancy



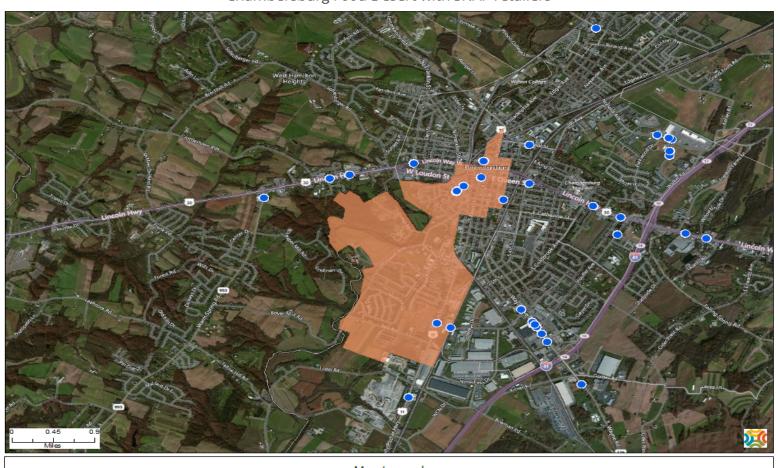
PENNSYLVANIA ACADEMY OF FAMILY PHYSICIANS FOUNDATION

Cost of Poverty in San Francisco Bay Area

- Every additional \$12,500 in household income buys one year of life expectancy
- (Benefit appears to plateau at household incomes above \$150,000)
- Similar gradients in Baltimore, NYC,
 Philadelphia, Hennepin County
 (Minneapolis-St. Paul), Colorado, California,
 AND Cuyahoga County (\$6304/year of life)



Chambersburg Food Desert with SNAP retailers



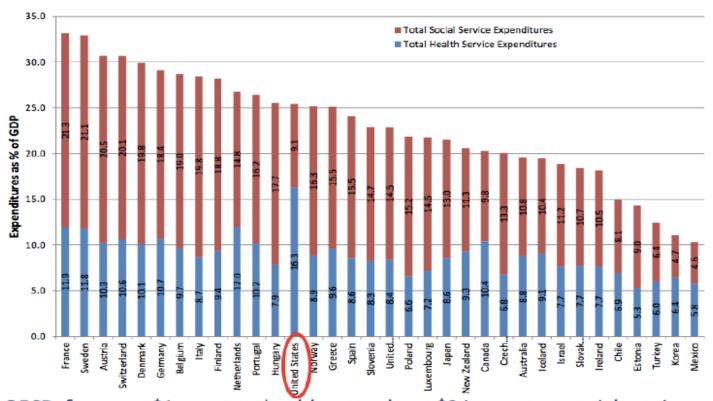




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Social vs. Healthcare Expenditures

Total health care investment in US is less



In OECD, for every \$1 spent on health care, about \$2 is spent on social services In the US, for \$1 spent on health care, about 55 cents is spent on social services

MY OF

In OECD, for every \$1 dollar spent on health care, \$2 is spent on Social Services:



- Unemployment benefits
- Social assistance
- Housing benefits
- Family benefits
- Lone-parent benefits
- Employment-conditional benefits
- Tax treatment of benefits
- Childcare Policies

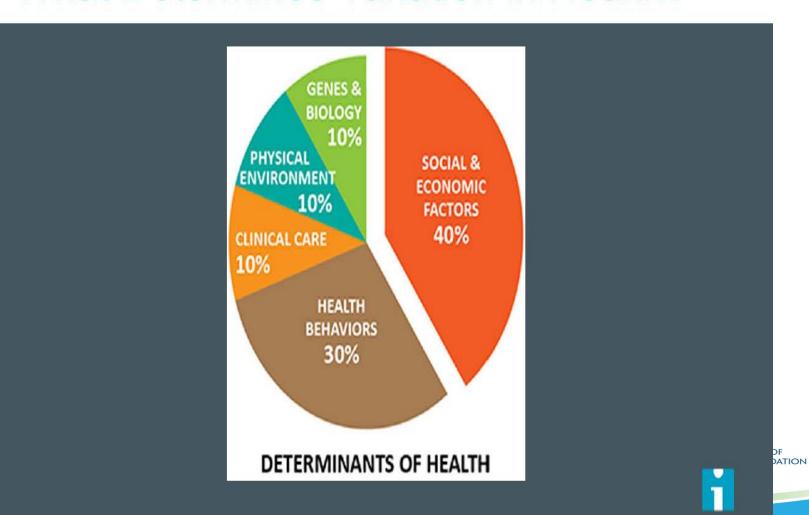
In the US, for every \$1 dollar spent on health care, 55 cents is spent on Social Services:

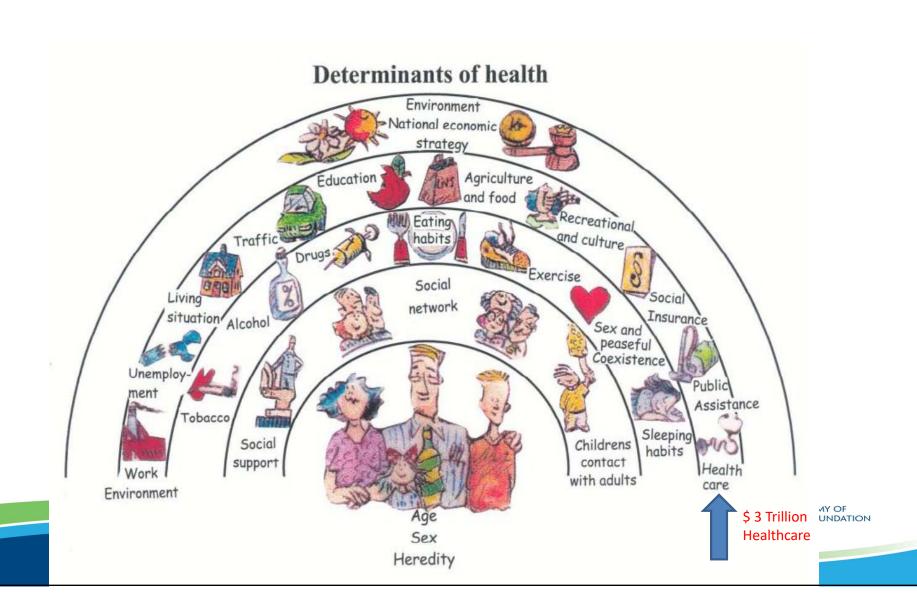


- Prevention
- Pension
- Paid Sick Leave
- Public Education
- Child Care

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What Determines Variation in Health?





The Upstream Parable

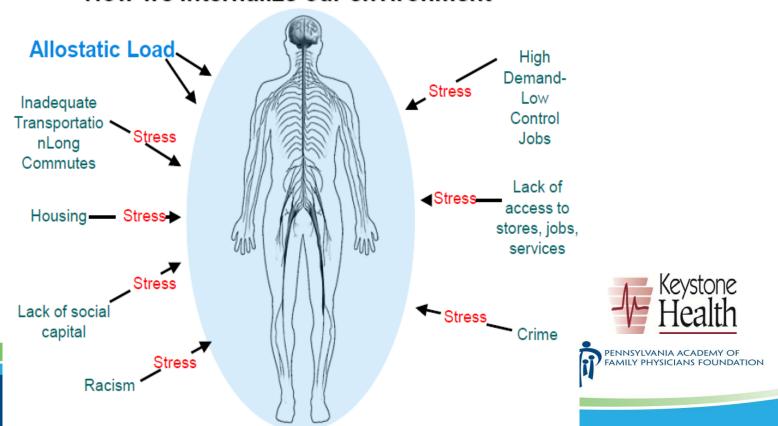
Rishi Manchanda, MD:

- "Three friends approach a river with a young child flailing his arms drowning, about to go over a waterfall. As they get closer, they notice many children in the river. The first friend dives in to save the child closest and bring to safety. The second friend begins to tie together piece of wood to create a raft and save more children. While the 3rd friend begins to run upstream. The first 2 friends ask the third, 'Why are you running away?' To which he responds, 'I am going to find who keeps throwing these children in the water and make them stop."

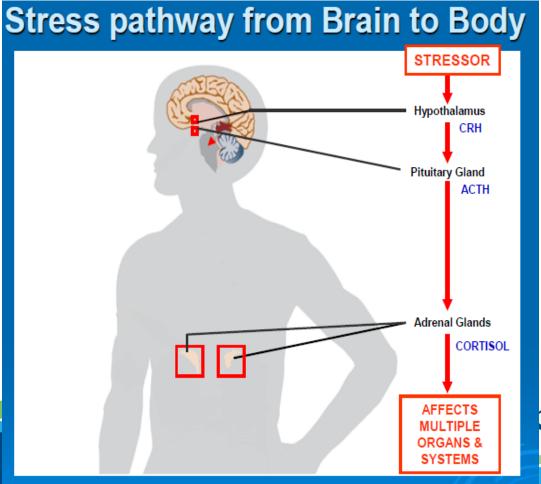
How do SDOH Affect Health?

When the External Becomes Internal:

How we internalize our environment



How do SDOH Affect Health?





The Intersection between Food Insecurity and Diabetes: A Review

Authors

Authors and affiliations

Enza Gucciardi 🗹 , Mandana Vahabi, Nicole Norris, John Paul Del Monte, Cecile Farnum

"Food-insecure adults are two to three times more likely to have diabetes than adults who are food-secure, even after controlling for important risk factors such as income, employment status, physical measures, and lifestyle factors. Furthermore, more food-insecure pregnant women are at risk for gestational diabetes than those who are food-secure."

SDOH IMPACT AT KEYSTONE



Goals and Objectives of Social Determinants of Health Data Collection

 Goal: To utilize the NACHC-endorsed PRAPARE Tool to collect Social Determinants of Health (SDOH) Data on patients at Keystone Health, a Federally Qualified Health Center in South Central Pennsylvania.

Objectives:

- To identify correlative properties between SDOH characteristics and clinical outcomes in our patient population.
- To develop more refined risk stratification criteria to help identify patients who would benefit from increased Care Management resources.
- To link patients with certain Social Determinants to available community resources AND identify where our local community resources may be insufficient to meet our patient's needs.

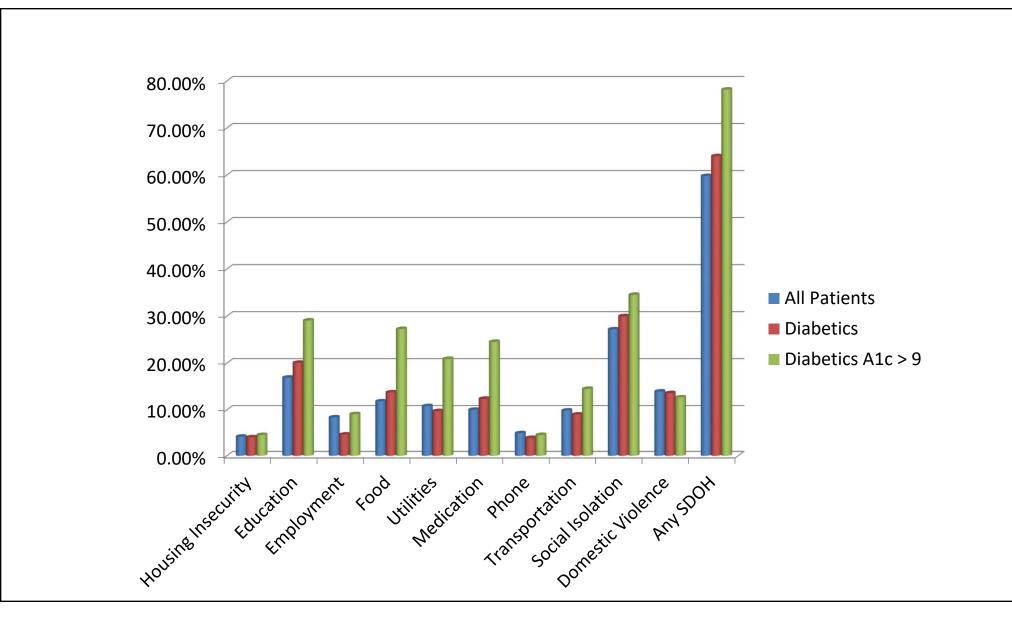


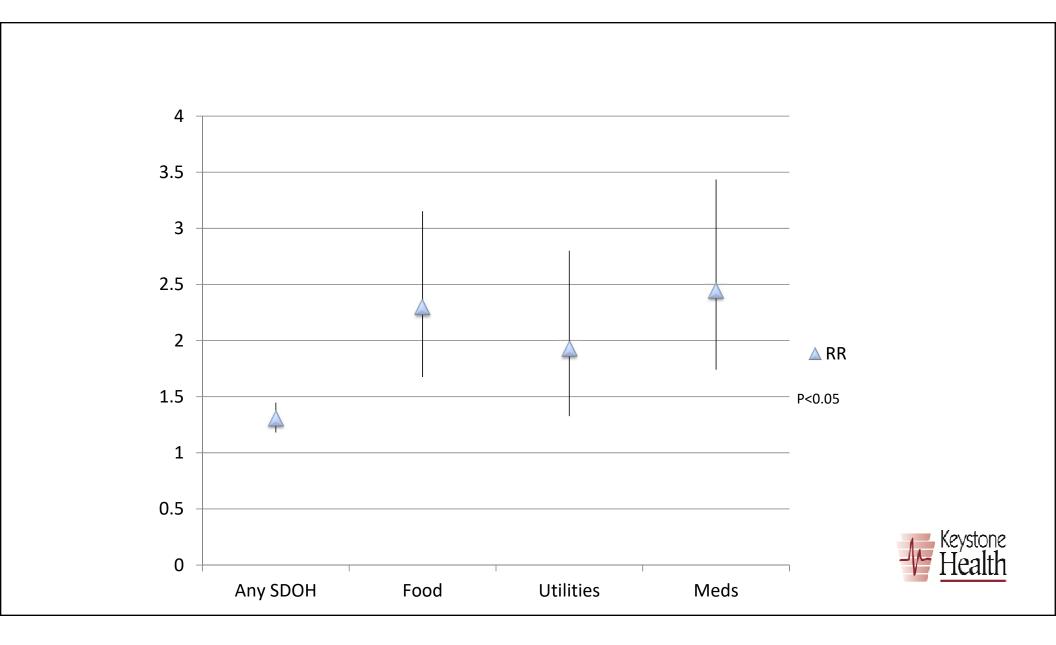
SDOH at Keystone

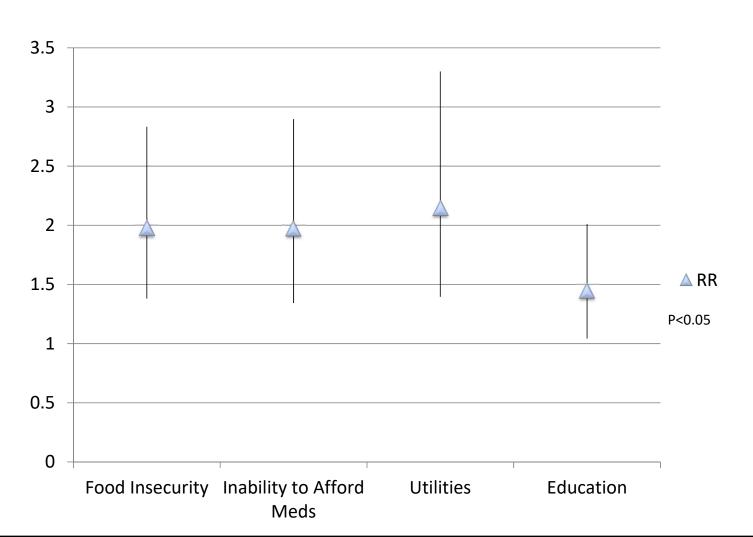
- Transportation
- Affording Medications
- Affording Utilities
- Affording Phone
- Housing Insecurity

- Social Isolation
- Exposure to Domestic Violence
- Under Education
- Lack of Stable Employment
- Food Insecurity

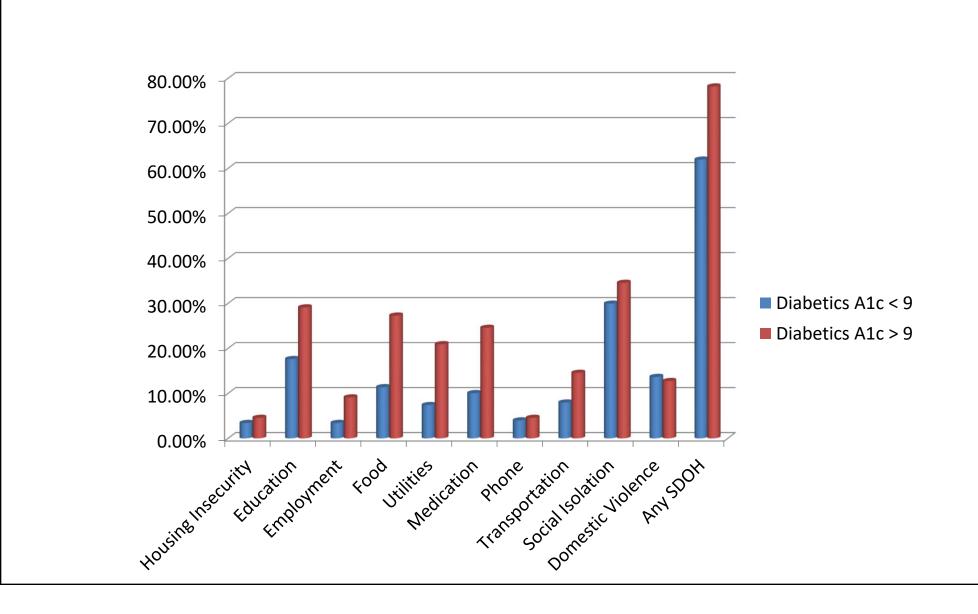


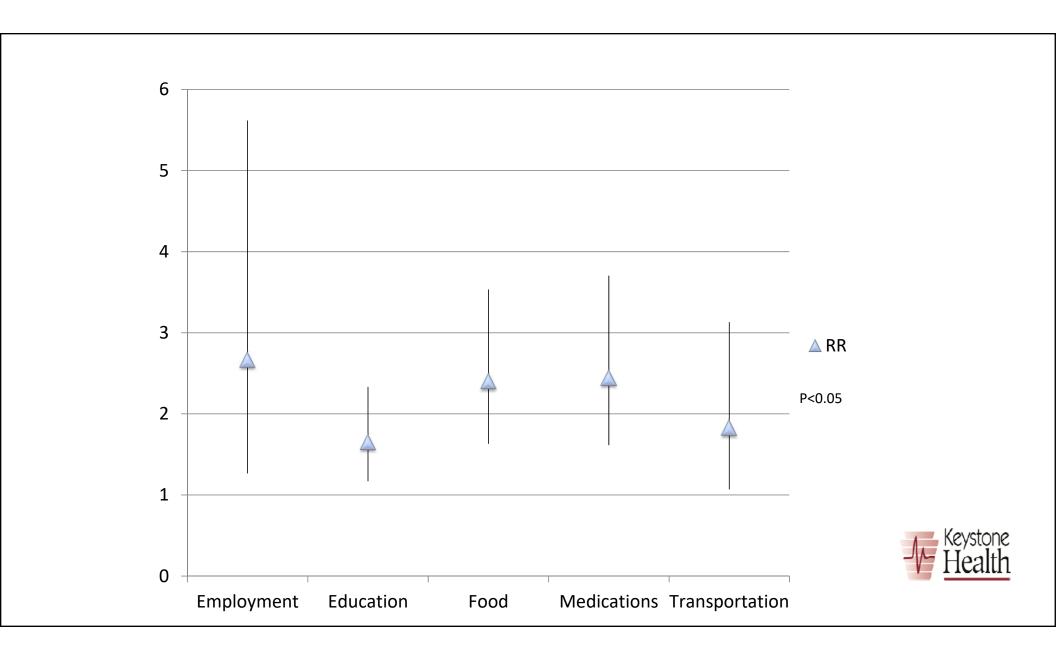












SDOH and Diabetes - Conclusions

- Compared to the general population, Diabetics are more likely to report at least one Social Determinant of Health.
- Diabetics with poor glycemic control are more likely to report statistically significant barriers with Under Education, Under Employment, Inability to Afford Medications, Food Insecurity, Inability to Afford Utilities, and Transportation, compared to the general population, other diabetics and especially diabetics with good glycemic control.
- We should consider SDOH when treating diabetic patients, especially diabetics with A1c > 9.



SDOH and Diabetes - Future

- 1. Identify meaningful ways to reduce the cost of medications in patients with Diabetes.
- 2. Develop partnerships with local community resources to reduce food insecurity for our Diabetics with poor glycemic control.
- 3. Utilize Enabling Services, such as Community Health Workers, for Diabetic patients with identified SDOH.



Easing the Financial Burden of Diabetes Management

Michael Geishauser, Pharm.D.
Clinical Pharmacist, UPMC Altoona Family
Physicians



Disclosure

I have no actual or potential conflict of interest in relation to this presentation.



Learning Objectives

At the end of this presentation, participants should be able to:

- 1. Reiterate the costs of diabetes
- 2. Review the history of insulin
- 3. List the types of information to gather from a patient facing difficulty affording diabetes medications
- 4. Summarize effective strategies for specific patient populations
- 5. Identify resources for additional information



Case Study

HS is a 54-year-old male who is seen in the family medicine clinic today for a three month follow-up on his DM2. Since his last visit, he has lost his construction job and no longer has any prescription coverage. He is due for refills on his diabetes medications and cannot afford his current regimen due to the recent job loss.



Case Study - Assessment and PMH

BP: 148/95 mmHg

• HR: 70 bpm

• RR: 22/min

Physical Exam: WNL

Height: 6'0"

• Weight: 230 lbs

• BMI: 31.2 kg/m²

- HTN x 10 years
- DM2 x 8 years
- Dyslipidemia x 5 years
- Hypothyroidism x 2 years



Case Study - Recent Labs

Na: 136 mEq/L

• K: 4.4 mEq/L

• SCr: 1.2 mEq/L

BUN: 14 mEq/L

FBG: 115 mEq/L

• HbA1c: 8.7%

TC: 160 mg/dL

HDL-C: 44 mg/dL

LDL-C: 92 mg/dL

• TG: 120 mg/dL



Case Study - Medication History

- Losartan 100 mg PO daily
- Chlorthalidone 25 mg PO daily daily
- Amlodipine 5 mg PO daily
- Simvastatin 20 mg PO daily
- Levothyroxine 75 mcg PO qAM
- Metformin IR 1000 mg PO BID
- Liraglutide 0.6 mg subQ weekly



When considering the patient's lack of prescription coverage and overall diabetes picture, which the following would be the best initial regimen to use for the patient?

- A. Metformin IR 1000 mg PO BID + insulin NPH 10 units subQ BID
- B. Metformin XR 2000 mg PO daily + pioglitazone 15 mg PO daily
- c. Metformin XR 2000 mg PO daily + glipizide 2.5 mg PO before breakfast
- D. D/C metformin, + insulin isophane/insulin regular 70/30 19 units before breakfast + 10 units before supper



Over the course of the past 3 months, HS has been increased to the maximum dose of the agent that you selected at the previous office visit. You check a point-of-care HbA1c on the patient and it results as 7.5%. What is your next step?

- A. Add pioglitazone 15 mg PO daily
- B. Add nateglinide 60 mg PO TID before meals
- c. Stop all oral agents and initiate insulin glargine 20 units subQ qHS + insulin lispro 7 units subQ TID before meals
- D. Add insulin NPH 10 units subQ BID



After filling the new regimen that you recommended, the patient consulted "Dr. Google" and heard that the new medication has a number of scary side effects. He has stopped taking the medication and his HbA1c remains stable at 7.5% after another 3 months. He states that he has heard "good things" about an injectable medication that he would only have to take once a week and would like to try that, as long as it did not cost him "his first-born." You agree to try semaglutide, with an end goal of titrating the patient off of his sulfonylurea. What is the best option to make it affordable? The patient has been doing handyman work and does not qualify for Medicaid.



Case Study - Question 3 (Cont.)

- A. As the patient's income level is below 400% of the FPL Sign him up for the NovoCare Patient Assistance Program
- B. Use a GoodRx coupon to bring down the price of semaglutide
- Tell the patient that he should see a physician who can provide him with medication samples
- D. If during open enrollment, advise the patient to visit healthcare.gov and sign up for a subsidized health insurance through the federal marketplace



An Overview of the Costs of Diabetes



The Staggering Costs of **Diabetes**



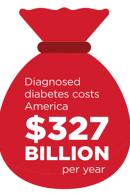
More than

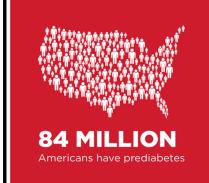
30 MILLION

AMERICANS
have diabetes



Health care costs for Americans with diabetes are **2.3X GREATER** than those without diabetes







\$1 IN \$7

Health care dollars is spent treating diabetes and its complications



Today, **4,110** Americans will be diagnosed with diabetes. Additionally, diabetes will cause **295** Americans to undergo an amputation and **137** will enter end-stage kidney disease treatment.

Learn how to fight this costly disease at diabetes.org/congress



American Diabetes Association. The Cost of Diabetes. https://www.diabetes.org/resources/statistics/cost-diabetes. Published March 2018. Accessed January 24, 2020.

Cost of Noninsulin Diabetes Medications

American Diabetes Association. Diabetes Care. 2020 Jan;43(Supplement 1): S106.

Class	Compound(s)	Dosage strength/product (if applicable)	Median AWP (min, max)†	Median NADAC (min, max)†	Maximum approved daily dose*
Biguanides	Metformin	500 mg (IR) 850 mg (IR) 1,000 mg (IR) 500 mg (ER) 750 mg (ER) 1,000 mg (ER)	\$84 (\$4, \$85) \$108 (\$6, \$109) \$87 (\$4, \$88) \$89 (\$87, \$7,412) \$74 (\$65, \$74) \$242 (\$242, \$7,214)	\$2 \$3 \$2 \$5 (\$5, \$988) \$4 \$224 (\$224, \$910)	2,000 mg 2,550 mg 2,000 mg 2,000 mg 1,500 mg 2,000 mg
Sulfonylureas (2nd	Glimepiride	4 mg	\$74 (\$71, \$198)	\$4	8 mg
generation)	Glipizide	10 mg (IR) 10 mg (XL)	\$75 (\$67, \$97) \$48	\$5 \$15	40 mg (IR) 20 mg (XL)
	Glyburide	6 mg (micronized) 5 mg	\$50 (\$48, \$71) \$93 (\$63, \$103)	\$4 \$11	12 mg (micronized) 20 mg
Thiazolidinediones	Pioglitazone Rosiglitazone	45 mg 4 mg	\$348 (\$283, \$349) \$407	\$4 \$330	45 mg 8 mg
α-Glucosidase inhibitors	Acarbose Miglitol	100 mg 100 mg	\$106 (\$104, \$106) \$241	\$23 \$311	300 mg 300 mg
Meglitinides (glinides)	Nateglinide Repaglinide	120 mg 2 mg	\$155 \$878 (\$162, \$897)	\$39 \$39	360 mg 16 mg
DPP-4 inhibitors	Alogliptin Saxagliptin Linagliptin Sitagliptin	25 mg 5 mg 5 mg 100 mg	\$234 \$505 \$523 \$541	\$168 \$403 \$419 \$433	25 mg 5 mg 5 mg 100 mg
SGLT2 inhibitors	Ertugliflozin Dapagliflozin Empagliflozin Canagliflozin	15 mg 10 mg 25 mg 300 mg	\$338 \$591 \$591 \$593	\$271 \$473 \$473 \$475	15 mg 10 mg 25 mg 300 mg
GLP-1 RAs	Exenatide (extended release)	2 mg powder for suspension or pen	\$840	\$672	2 mg**
	Exenatide	10 µg pen	\$876	\$730	20 μg
	Dulaglutide	1.5/0.5 mL pen	\$911	\$730	1.5 mg**
	Semaglutide	1 mg pen 14 mg (tablet)	\$927 \$927	\$745 N/A	1 mg** 14 mg
	Liraglutide	14 mg (tablet) 18 mg/3 mL pen	\$1,106	\$886	1.8 mg
	Lixisenatide	300 μg/3 mL pen	\$744	N/A	20 μg
Bile acid sequestrant	Colesevelam	625 mg tabs 3.75 g suspension	\$712 (\$674, \$712) \$675	\$177 \$415	3.75 g 3.75 g
Dopamine-2 agonist	Bromocriptine	0.8 mg	\$906	\$729	4.8 mg
Amylin mimetic	Pramlintide	120 µg pen	\$2,623	\$2,097	120 µg/injection††

AWP, average wholesale price; DPP-4, dipeptidyl peptidase 4; ER and XL, extended release; GLP-1 RA, glucagon-like peptide 1 receptor agonist; IR, immediate release; N/A, data not available; NADAC, National Average Drug Acquisition Cost; SGLT2, sodium—glucose cotransporter 2. †Calculated for 30-day supply (AWP[54] or NADAC [55] unit price × number of dose srequired to provide maximum approved daily dose × 30 days); median AWP or NADAC listed alone when only one product and/or price. *Utilized to calculate median AWP and NADAC (min, max); generic prices used, if available commercially. **Administered once weekly. †††AWP and NADAC calculated based on 120 µg three times daily.

Cost of Insulins

American Diabetes Association. Diabetes Care.

2020 Jan;43(Supplement 1): S107.

Insulins	Compounds	Dosage form/product	Median AWP (min, max)*	Median NADAC (min, max)*
Rapid-acting	Lispro follow-on	U-100 vial	\$157	\$126
and the same of the same	product	U-100 prefilled pen	\$202	\$162
	• Lispro	U-100 vial	\$330	\$264
		U-100 3 mL cartridges	\$408	\$327
		U-100 prefilled pen; U-200 prefilled pen	\$424	\$340
	Glulisine	U-100 vial	\$341	\$273
		U-100 prefilled pen	\$439	\$353
	Aspart	U-100 vial	\$347†	\$278†
		U-100 3 mL cartridges	\$430	\$345
		U-100 prefilled pen	\$447†	\$358†
	 Inhaled insulin 	Inhalation cartridges	\$924	\$606
Short-acting	human regular	U-100 vial	\$165 (\$165, \$178)++	\$134 (\$134, \$146)++
Intermediate-acting	human NPH	U-100 vial U-100 prefilled pen	\$165 (\$165, \$178)++ \$377	\$135 (\$135, \$146)++ \$304
Concentrated human regular insulin	U-500 human regular insulin	U-500 vial U-500 prefilled pen	\$178 \$230	\$144 \$184
Long-acting	Glargine follow-on product	U-100 prefilled pen	\$261	\$210
	Glargine	U-100 vial; U-100 prefilled pen	\$340	\$272
		U-300 prefilled pen	\$346	\$280
	Detemir	U-100 vial; U-100 prefilled pen	\$370	\$295
	Degludec	U-100 vial; U-100 prefilled pen; U-200 prefilled pen	\$407	\$326
Premixed insulin products	NPH/regular 70/30	U-100 vial U-100 prefilled pen	\$165 (\$165, \$178) \$377	\$134 (\$134, \$145) \$303
	• Lispro 50/50	U-100 vial	\$342	\$274
		U-100 prefilled pen	\$424	\$338
	• Lispro 75/25	U-100 vial	\$342	\$274
		U-100 prefilled pen	\$424	\$340
	 Aspart 70/30 	U-100 vial	\$360	\$289
		U-100 prefilled pen	\$447	\$358
Premixed insulin/GLP-1 RA	Glargine/Lixisenatide	100/33 prefilled pen	\$565	\$454
products	Degludec/Liraglutide	100/3.6 prefilled pen	\$832	\$668

AWP, average wholesale price; GLP-1, glucagon-like peptide 1; NADAC, National Average Drug Acquisition Cost. *AWP or NADAC calculated as in **Table 9.2**. †Inclusive of both the original and "faster-acting" products. ††AWP and NADAC data presented do not include vials of regular human insulin and NPH available at Walmart for approximately \$25/vial; median listed alone when only one product and/or price.

Insulin: The Story of an Upside-Down Market



History of Insulin

- 1916 Nicolae Paulescu developed an aqueous pancreatic extract which had a normalizing effect on blood glucose levels in diabetic dogs
- 1920 Frederick Banting concluded that the digestive secretions were breaking down the islet secretion, thereby making it impossible to extract successfully
- **1921** Banting and Charles Best isolated an extract, "isleton," from the islets of a duct-tied dog and injected it into a diabetic dog



- 1921 Banting succeeded in extracting insulin from adult bovine pancreas
- 1922 Canadian patient named Leonard Thompson became the first human to receive an insulin injection
- 1922 Researchers assigned the patent for insulin to the University of Toronto Board of Governors for a payment of \$1.00
 - Congratulated in *The World's Work* in 1923 as "a step forward in medical ethics"



- **1923** Eli Lilly and Company began to mass produce porcine-bovine insulin (*Iletin*)
- 1926 Technique of insulin crystallization leads to improved soluble (or regular) insulin purity
- **1936** First commercially available, extended-action insulin, PZI (protamine zinc insulin), released

You can all guess what came next...



• 1941 - A federal grand jury indicted insulin manufacturer Eli Lilly, distributor Sharp & Dohme, and drug maker and distributor E.R. Squibb & Sons for conspiring to unlawfully "bring about arbitrary, uniform, and noncompetitive prices for insulin and to prevent normal competition in the sale of the drug."



- **1946** Nordisk Insulin Laboratory released insulin NPH (neutral protamine Hagedorn)
- 1956 Lente series of insulins was introduced
- 1983 First recombinant insulin, human insulin regular, was approved
- 1996 First rapid-acting insulin analog, insulin lispro, was approved

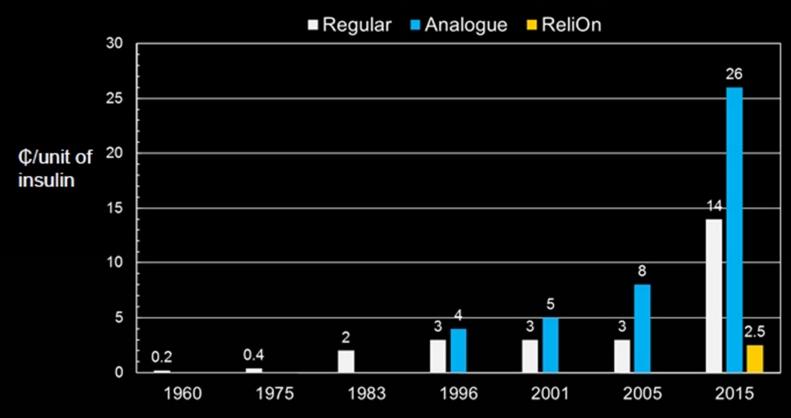


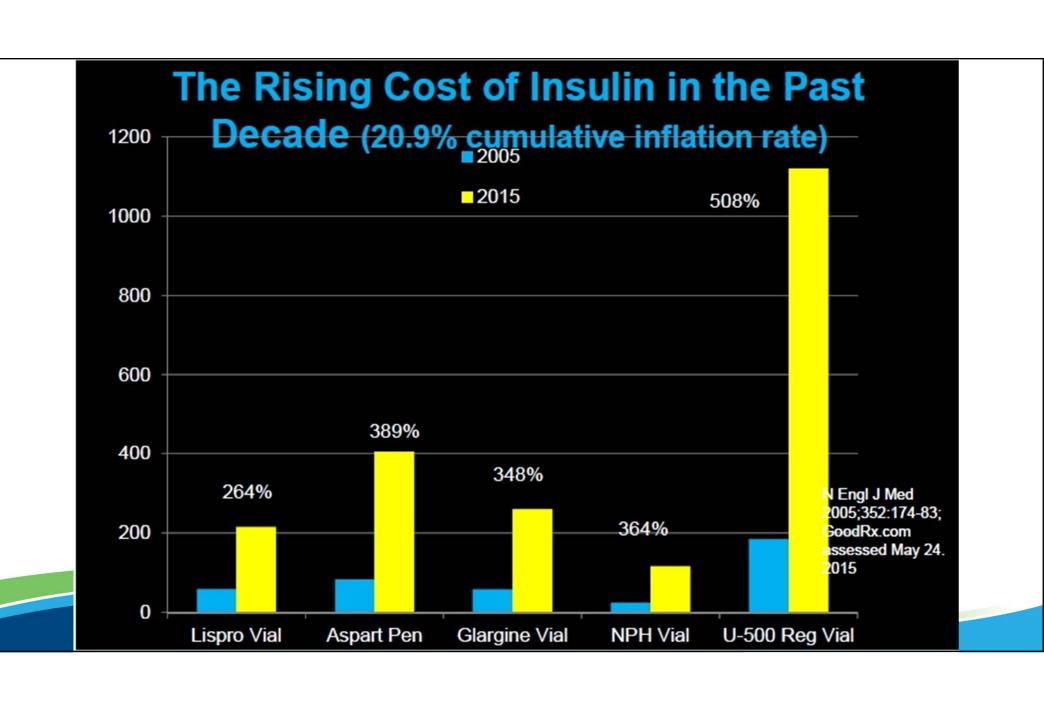
So What Do I Mean By an "Upside-Down Market?"

- In the 1970s, research on recombinant DNA types of insulin that would be synthetic human insulins were pushed by pharmaceutical companies
- The same "lower price" arguments were not made in the mid-to-late-1990s when the analog insulins came to market
- Despite the immensely larger supply of insulin available on the market,
 prices are still increasing



Price of Insulin: 1960-2015 US-per unit (Regular and Rapid-Acting Analogue)





So How Do We Help Patients Afford Medication?



Patient Background Information

- Patient age
- Current prescription coverage
 - Uninsured
 - Commercial/employer-sponsored
 - Medicare Part D
 - Medicaid
- Annual household income and size
 - https://www.needymeds.org/poverty-guidelines-percents



Patient Background Information (Cont.)

- Current copays/out-of-pocket costs
- Other medications/supplies
- Current patient pharmacy
 - Pharmacy may have information about the patient that have not come to light at office visits



Uninsured or "Cash-Paying" Patients

No Prescription Coverage

- Preferentially select older, generically-available medications
- Some pharmacies still have "\$4 programs" or discounted prices for some of these medications
- Independent pharmacies can be a great resource



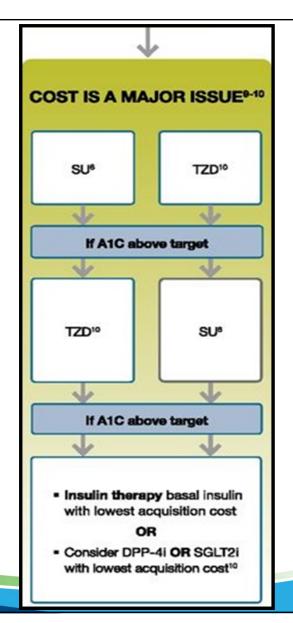
Uninsured or "Cash-Paying" Patients (Cont.)

- Discount mail-order pharmacies
 - https://rxoutreach.org
- Discount cards such as GoodRx as last resort
 - Terrible reimbursement to community pharmacies
- Most brands and some generics
 - Manufacturer patient assistance programs



The ADA algorithm for medication selection includes a column for patients where cost is a major issue

American Diabetes Association. Diabetes Care. 2020 Jan;43(Supplement 1): S103.



Type 2 Diabetes Medications

GLP-1 RA

↑ Insulin secretion
↓ Glucagon secretion
(~1-1.6% A1c lowering)

Exenatide ER (Bydureon)
Dulaglutide (Trulicity)
Semaglutide (Ozempic)
ORAL Semaglutide (Rybelsus)
Liraglutide (Victoza)
Lixisenatide (Adlyxin)

SGLT2i

↓ Renal glucose reabsorption
↑ Urinary glucose excretion
(~0.5-1% A1c lowering)

Canagliflozin (Invokana) Dapagliflozin (Farxiga) Empagliflozin (Jardiance) Ertugliflozin (Steglatro)

DPP-4i

↑ Insulin secretion
↓ Glucagon secretion
(~0.5-1% A1c lowering)

Sitagliptin (Januvia) Alogliptin (Nesina) Saxagliptin (Onglyza) Linagliptin (Tradjenta)

Biguanide

↓ Hepatic glucose production
 ↓ Intestinal glucose absorption
 ↑ Insulin sensitivity

(~1.5-2% A1c lowering)

Metformin (Glucophage)

SU RxSlid

† Insulin release from pancreatic β cells

(~1-1.5% A1c lowering)

Glimepiride (Amaryl) Glipizide (Glucotrol) Glyburide (Glynase)

TZD

↑ Insulin sensitivity in muscle and fat (~1-1.5% A1c lowering)

Pioglitazone (Actos) Rosiglitazone (Avandia)

Meglitinide

† Insulin release from pancreatic β cells (~1-1.5% A1c lowering)

Nateglinide (Starlix) Repaglinide (Prandin)

RxSlidel

α -glucosidase Inhibitor

↓ Intestinal carbohydrate digestion/absorption (~0.5-0.8% A1c lowering)

> Acarbose (Precose) Miglitol (Glyset)

CV Risk Reduction*

Liraglutide

Empagliflozin

↓ Risk of HF Hospitalization*

Dapagliflozin

*FDA Approved Indication

GLP-1 RA = Glucagon-like peptide-1 receptor agonist; SGLT2i = Sodium-glucose cotransporter 2 inhibitor; DPP-4i = Dipeptidyl peptidase-4 inhibitor; SU = Sulfonylurea; TZD = Thiazolidinedione

RxSlideKit



Uninsured or "Cash-Paying" Patients (Cont.)

Medicare Part A and B Only

- Is there an exception to enroll in a Part D plan outside of open enrollment?
- Is the patient eligible for "Extra Help" or a Medicare Savings Program?
- < 65 years old
 - Medical Assistance for Workers with Disabilities (MAWD)



Uninsured or "Cash-Paying" Patients (Cont.)

- > 65 years old
 - Pennsylvania PACE/PACENET

2020 PACE/PACENET Maximum Income Limits

PACE	Single	\$14,500	Copay Generic	\$6
	Married	\$17,700	Copay Single-Source Brand	\$9
PACENET	Single	\$27,500	Copay Generic	\$8
	Married	\$35,500	Copay Single-Source Brand	\$15



Medicare Part D Patients

- > 65 years old
 - Pennsylvania PACE/PACENET
- Is the patient eligible for "Extra Help" or a Medicare Savings Program?
- Medicare Part B covered products
- APPRISE Medicare Counseling
- Manufacturer patient assistance programs
 - Must meet threshold of out-of-pocket spend



Medicare Part D Patients (Cont.)

- Medicare Part D plan finder
- APhA's Pharmacy Today "What you should know about 2020 Medicare prescription drug plans"
- 2020 Medicare coverage gap "Donut hole"
- Consider using cheaper medications and formulations to defer entrance into the coverage gap



Medicaid Patients

- As of 01/01/2020, Fee-for-Service and all Medicaid managed care organizations use a statewide preferred drug list (PDL)
- Eligible for other programs to free up resources for medications
 - Transportation
 - Utilities
 - Food stamps
 - Low-income housing



Medicaid Patients (Cont.)

- Of note, cash-pay or use of discount cards by Medicaid patients is controversial
 - Some pharmacies may make patients sign a waiver if they cash-pay or use a discount card that states that they are aware if Medicaid discovers they are able to pay for their prescriptions, their benefits may be revoked



Commercially-Insured Patients

- Review the patient's prescription plan's formulary
 - Take advantage of your embedded or community pharmacists
 - Most pharmacies will allow running of "dummy scripts" to check coverage of medications
- Manufacturer copay cards
- Manufacturer patient assistance programs
- Use of older, generically-available medications, "\$4 programs," or discount cards

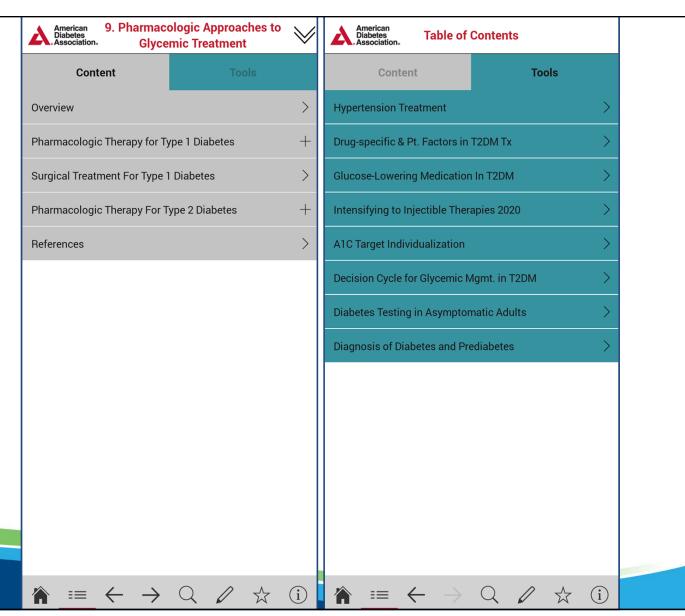


Useful Smartphone Applications



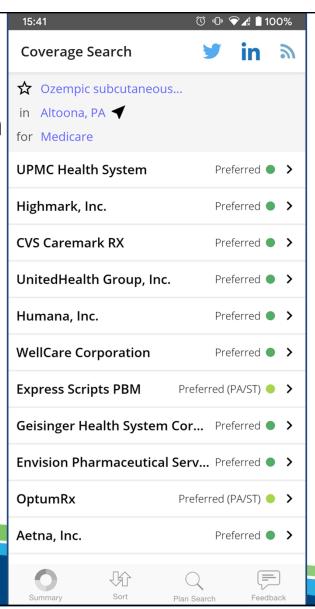
ADA Standards of Care smartphone application

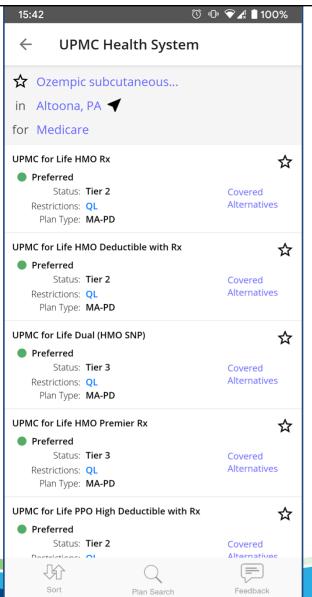
Available free on Android and iOS



MMIT Coverage Search smartphone application

Available free to healthcare professionals on Android and iOS





When considering the patient's lack of prescription coverage and overall diabetes picture, which the following would be the best initial regimen to use for the patient?

- A. Metformin IR 1000 mg PO BID + insulin NPH 10 units subQ BID
- B. Metformin XR 2000 mg PO daily + pioglitazone 15 mg PO daily
- c. Metformin XR 2000 mg PO daily + glipizide 2.5 mg PO before breakfast
- D/C metformin, + insulin isophane/insulin regular 70/30 19 units before breakfast + 10 units before supper



Over the course of the past 3 months, HS has been increased to the maximum dose of the agent that you selected at the previous office visit. You check a point-of-care HbA1c on the patient and it results as 7.5%. What is your next step?

- A. Add pioglitazone 15 mg PO daily
- B. Add nateglinide 60 mg PO TID before meals
- Stop all oral agents and initiate insulin glargine 20 units subQ qHS + insulin lispro 7 units subQ TID before meals
- D. Add insulin NPH 10 units subQ BID



After filling the new regimen that you recommended, the patient consulted "Dr. Google" and heard that the new medication has a number of scary side effects. He has stopped taking the medication and his HbA1c remains stable at 7.5% after another 3 months. He states that he has heard "good things" about an injectable medication that he would only have to take once a week and would like to try that, as long as it did not cost him "his first-born." You agree to try semaglutide, with an end goal of titrating the patient off of his sulfonylurea. What is the best option to make it affordable? The patient has been doing handyman work and does not qualify for Medicaid.



Case Study - Question 3 (Cont.)

- A. As the patient's income level is below 400% of the FPL Sign him up for the NovoCare Patient Assistance Program
- B. Use a GoodRx coupon to bring down the price of semaglutide
- c. Tell the patient that he should see a physician who can provide him with medication samples
- D. If during open enrollment, advise the patient to visit healthcare.gov and sign up for a subsidized health insurance through the federal marketplace



Resource Links

- NeedyMeds
 - https://www.needymeds.org/
- Medicare Part D enrollment
 - https://www.medicare.gov/sign-up-change-plans/when-can-i-join-ahealth-or-drug-plan/special-circumstances-special-enrollment-periods



Resource Links (Cont.)

- PACE/PACENET
 - https://pacecares.magellanhealth.com/
- Medicare Part B covered products
 - https://www.medicare.gov/supplierdirectory/search.html
- APPRISE Medicare Counseling
 - https://www.aging.pa.gov/aging-services/medicarecounseling/Pages/default.aspx
- Medicare Part D plan finder
 - https://www.medicare.gov/plan-compare



Resource Links (Cont.)

- "What you should know about 2020 Medicare prescription drug plans"
 - https://www.pharmacytoday.org/article/S1042-0991(19)31368-4/pdf
- Pennsylvania Medicaid Preferred Drug List
 - https://papdl.com/preferred-drug-list



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