


Forming partnerships and collaborating are effective interventions that may help decrease health disparities?

A. True
B. False

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The Need for a New Medical Model: A Challenge for Biomedicine* Gerorge L. Engel. 1977

"A biopsychosocial model would take all of these factors into account. It would acknowledge the fundamental fact that the patient comes to the physician because either he does not know what is wrong or, if he does, he feels incapable of helping himself. The psychobiological unity of man requires that the physician accept the responsibility to evaluate whatever problems the patient presents and recommend a course of action, including referral to other helping professions. Hence the physician's basic professional knowledge and skills must span the social, psychological, and biological, for his decisions and actions on the patient's behalf involve all three"

Science. 1977 Apr 8;196(4286):129-36
Positive Medicine, David Beaumont, Oxford university Press. 2021.
DOI: 10.1093/psp/psaa019

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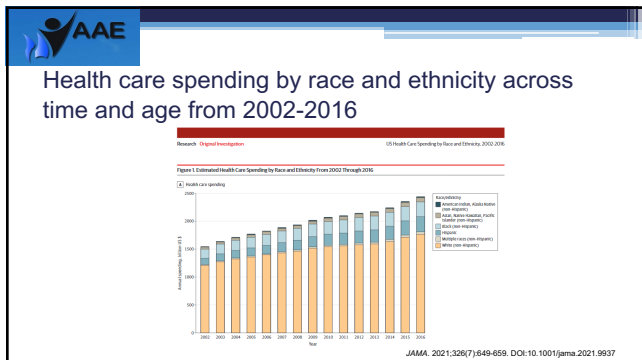


The five social determinants of health affecting our communities:

- Economic stability
- Education
- Social/community context
- Healthcare access/use
- Neighborhood/ physical environment of the patient

<https://www.cdc.gov/healthequity/whats/index.html>

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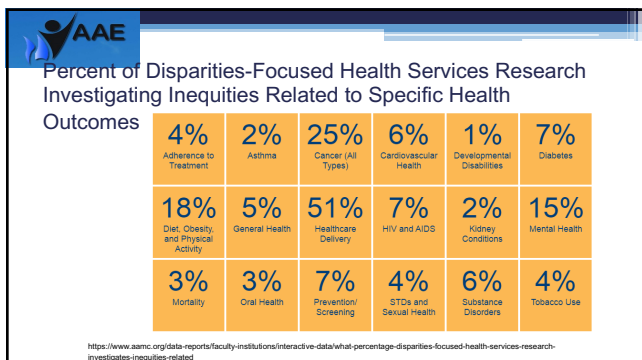
Table. Estimated Age-Specific, All-Age, and Age-Standardized Health Care Spending per Person by Race and Ethnicity in 2016*

Race and Ethnicity (non-Hispanic)	Spending per person, \$ US (95% CI)	0-29y	30-44y	45-64y	65y	All ages	Age standardized
American Indian, Alaska Native	2677 (1956-3641)	5159 (3961-6495)	19746 (8411-31436)	15118 (11136-20195)	6919 (6541-8089)	7649 (6129-8816)	
Asian, Native Hawaiian, Pacific Islander	2488 (2057-3014)	3496 (3031-4129)	3381 (3010-3753)	3602 (3074-4124)	4484 (3986-4959)	4201 (4083-5282)	
Black	2794 (2623-3431)	4307 (3776-4776)	9168 (8532-9808)	17365 (16151-18246)	6546 (6111-6981)	7361 (6783-7767)	
Hispanic	2803 (2348-3241)	3521 (3276-3787)	7000 (6327-7626)	14403 (13165-15776)	4682 (4411-4971)	6025 (5703-6373)	
Multiple races	3816 (2925-5427)	5750 (4238-6662)	12356 (9495-16292)	19249 (14765-27821)	6423 (5484-7313)	8276 (8046-10492)	
White	3453 (2816-3689)	5426 (5246-5616)	10419 (9185-12144)	18151 (16136-19301)	8941 (8627-9099)	8141 (8058-8248)	
Coefficient of variation, %	21 (9-48)	23 (17-29)	28 (23-39)	24 (18-28)	27 (24-29)	23 (18-28)	


*Uncertainty intervals (UIs) were based on comparing the analysis on 1000 independently bootstrapped samples of the underlying data. Spending is reported in 2016 US dollars per person. The coefficient of variation indicates dispersion relative to the mean. A larger coefficient of variation means a relatively larger amount of variation.

JAMA. 2021;326(7):649-659. DOI:10.1001/jama.2021.9937

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Reliever-triggered inhaled glucocorticoid in Black and Latinx adults with asthma

Abstract

Objective: Reliever-triggered inhaled glucocorticoid in Black and Latinx adults with asthma.

Design: Randomized controlled trial.

Setting: Academic medical center.

Participants: 1201 Black and Latinx adults with moderate-to-severe asthma.


Interventions: Usual care or usual care plus patient-activated reliever-triggered inhaled glucocorticoid strategy (PARTICS).

Measurements and Main Results: Annualized rate of severe asthma exacerbations during the subsequent 15 months.

Conclusions: Symptom-driven, reliever-triggered addition of ICS therapy led to a lower rate of severe asthma exacerbations than usual care.

N Engl J Med 2022;386:1505-18. DOI: 10.1056/NEJMoa2118813

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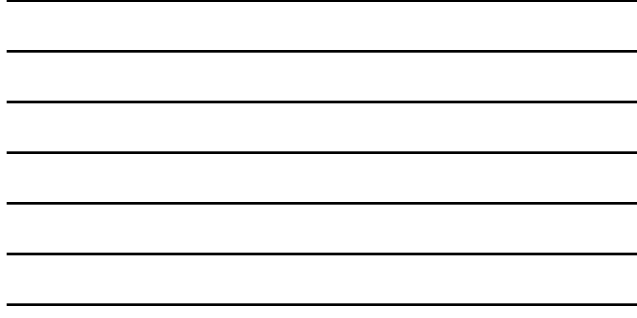

Baseline characteristics of the participants

Table 1. Characteristics of the Participants at Baseline*

Characteristic	Intervention Group (n=602)	Usual-Care Group (n=599)	Total (n=1201)
Demographics			
Race and ethnic group — %			
Black	502	493	995
Latinx	96	101	197
Both Black and Latinx	4	4	8
Age — yr	48.1 (SD 13.5)	49.2 (SD 13.9)	48.7 (SD 13.7)
Female sex assigned at birth — %	84.7	83.7	84.2
Body mass index	32.2 (SD 6.1)	32.1 (SD 6.1)	32.1 (SD 6.1)
Obesity — %	70.2	67.1	68.6
Smoking status — %			
Current smoker	11.9	12.3	12.1
Former smoker	3.0	7.7	5.3
Never smoker	85.0	80.0	82.5
Prescription or tobacco use in smoking cessation — %	10.4	13.8	12.1
No. of years of smoking	12.4	13.8	13.1
Maintenance asthma medications — %			
Inhaled glucocorticoid without LABA	38.3	38.1	38.2
Combination inhaled glucocorticoid with LABA	71.7	71.7	71.7
Long-acting muscarinic antagonist	10.7	13.1	11.9
Leukotriene receptor antagonist	11.1	9.3	10.2
Biologic agent	2.8	3.2	3.0
Quick-reliever inhaler use			
Use of quick-reliever inhaler — %	68.2	65.3	66.7
No. of quick-reliever inhalations per week	2.2 (SD 1.4)	1.9 (SD 1.3)	2.1 (SD 1.3)
No. of counseling conditions — %†			
0	27.7	33.8	30.7
1	25.0	21.0	23.0
2	22.2	19.4	20.8
3	18.5	14.3	16.4
≥4	11.7	15.1	13.4
EDUC — %§			
High school or less	24.2 (SD 17.8)	24.2 (SD 17.8)	24.2 (SD 17.8)
Some college	26.2 (SD 17.9)	25.0 (SD 17.8)	25.6 (SD 17.8)
College graduate	1.8 (SD 1.8)	1.9 (SD 1.8)	1.8 (SD 1.8)
≥2 college courses in past year — %¶	74.3	71.0	72.7
Asthma Control Test score	14.7 (SD 4.4)	14.5 (SD 4.5)	14.6 (SD 4.4)
Asthma Symptom Utility Index score	8.7 (SD 3.2)	8.7 (SD 3.2)	8.7 (SD 3.2)
Medication Adherence Report Scale-5 score¶¶	4.5 (SD 3.9)	4.5 (SD 3.9)	4.5 (SD 3.9)
Low or marginal health literacy — %	16.9	16.6	16.8
Perceived personal control health — %			
Sufficient	2.2	1.3	1.8
Not sufficient	11.3	10.0	10.7

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Explaining Racial Disparities in Child Asthma Readmission Using a Causal Inference Approach...

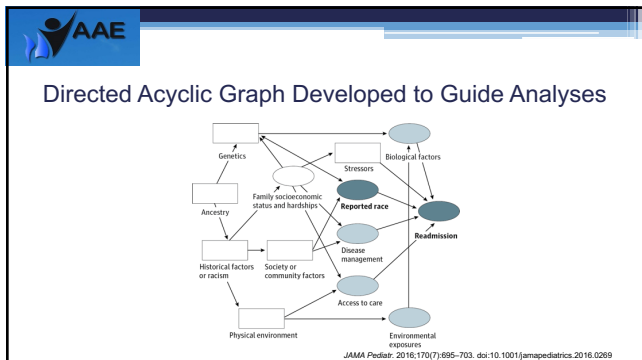
Methods:

- A population-based, prospective, observational cohort
- 695 children, aged 1 to 16 years
- Population; African American (n = 441) or white (n = 254) in an inpatient setting
- Primary outcome; time to asthma-related readmission and race was the predictor
- Variables measured; biologic, environmental, disease management, access, and socioeconomic hardship

JAMA Pediatr 2016;170(7):695-703. doi:10.1001/jamapediatrics.2016.0269

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Explaining Racial Disparities in Child Asthma Readmission Using a Causal Inference Approach

Results:

- African American children were 2.26 times more likely to be readmitted than white children
- African American children significantly differed with respect to nearly every measured biologic, environmental, disease management, access and socioeconomic hardship variable
- Socioeconomic hardship variables explained 53% of the observed disparity
- The addition of biologic, environmental, disease management, and access variables resulted in 80% of the readmission disparity

JAMA Pediatr. 2016;170(7):695-703. doi:10.1001/jamapediatrics.2016.0269

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Social risk interventions and healthcare utilization for pediatric asthma: A systematic review and Meta-analysis

Social Risk Interventions and Health Care Utilization for Pediatric Asthma: A Systematic Review and Meta-analysis

Key Points

Question: Are asthma-specific interventions addressing social risks associated with asthma-related health care utilization among children?

Findings: In this systematic review of 38 studies and meta-analysis of 19 studies (comprising 5441 participants), participation in a social risk-based intervention was associated with significantly reduced risk of asthma-related emergency department visits and hospitalizations among children.

Meaning: Findings suggest that it is important to consider universal social risk screening and implementation of social risk-based interventions as elements of pediatric asthma care guidelines.

JAMA Pediatr. 2022;176(2):e215103. doi:10.1001/jamapediatrics.2021.5103

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AAE

Social risks addressed in each social determinant of health domain:

- Access to primary care
- Access to health care
- Health literacy (health and health care)
- Social cohesion (social and community context)
- Environmental conditions and housing quality (neighborhood and the built environment)

JAMA Pediatr. 2022;176(2):e215103. doi:10.1001/jamapediatrics.2021.5103

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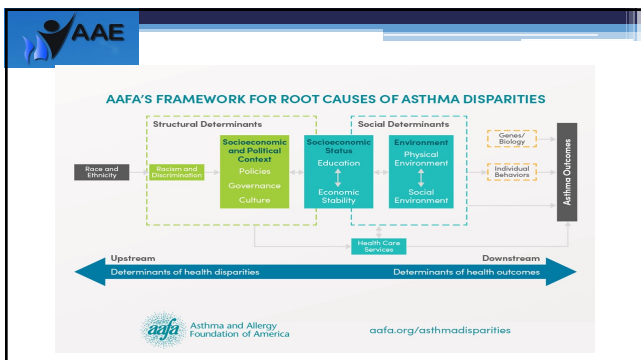
AAE

Results


- Social risk-based interventions were associated with significantly reduced risk of asthma-related emergency department visits and hospitalizations
- Health, environment, and community intervention cluster produced the lowest risk for ED visits
- No interventions focused on the economy or education domains

JAMA Pediatr. 2022;176(2):e215103. doi:10.1001/jamapediatrics.2021.5103

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What can we do and what needs to change?

Put research into practice:

- Clinical care
- Community action
- Health Policy

JAMA Pediatr. 2016;170 (7), 644-645.
<http://www.aae.org/asthma/clinical-practice/clinical-practice.aspx>
 Am J Health-Syst Pharm. 2019; 76:403-6

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Research to Practice: Clinic

- Guideline-treatment
 - Stepwise approach (maintenance/relievers)
 - Access to MART therapy
 - Collaboration
 - Disease management education (Including families)
 - Comorbidities
 - Asthma self-management education
 - Triggers
 - Smoking cessation
 - Proper medication use
 - Screen for social determinants of health
 - Connect families to resources

JAMA Pediatr. 2016;170 (7), 644-645.
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 Am J Health-Syst Pharm. 2019; 76:403-6

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Research to Practice: Community

- Community
 - Build strong partnerships with the community
 - Home-visits
 - Nurses
 - Community health workers
 - Environmental interventions
 - School-based programs
 - School-based asthma education programs

JAMA Pediatr. 2016;170 (7), 644-645.
<http://www.aae.org/asthma/clinical-practice/clinical-practice.aspx>
 Am J Health-Syst Pharm. 2019; 76:403-6

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Research to Practice: Health Policy

- Socioeconomic hardship variables are responsible for more than half of the observed disparity in asthma readmission
- Poverty among racial and ethnic groups must be addressed
- Payment reform
- Reimbursement models
 - Community health workers for in-home asthma education
- Home remediation
 - Pest management; home high-efficiency particulate air filters
- School-based administration of asthma controller medications

JAMA Pediatr. 2016;170 (7): 644-645.
<https://www.aaaf.org/asthma-disparities-burden-on-minorities.aspx>


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Conclusions...

- Disparities within our healthcare system continue to affect our communities in need
- Unaddressed social determinants of health also lead to health disparities affecting asthma outcomes
- Targeting social determinants of health can positively impact or communities

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Thank you!

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