Cancer Health Disparities; Challenges and solutions through NOLA (No one left Alone)

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- **Recognized by the US congress as an outstanding citizen who set the Gold Standard for decades**
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AACR Cancer Disparities Progress Report 2020

34% of cancer deaths among all U.S. adults ages 25 to 74 could be **prevented if socioeconomic disparities were eliminated** (45).

U.S. Cancer Health Disparities at a Glance

Adverse differences in numerous measures of cancer burden exist among certain population groups in the United States. Examples of such disparities include:

111% and 39% HIGHER RISK	African American men and women have a **111 percent and 39 percent higher risk of dying from prostate cancer and breast cancer**, respectively, compared with their white counterparts (4).
20% and 38% MORE LIKELY	Hispanic children and adolescents are **20 percent and 38 percent more likely to develop leukemia** than non-Hispanic white children and adolescents, respectively (5).
TWICE AS LIKELY	Asian/Pacific Islander adults are **twice as likely to die from stomach cancer** as white adults (6).
TWICE AS LIKELY	American Indian/Alaska Native adults are **twice as likely to develop liver and bile duct cancer** as white adults (6).
3.5X HIGHER	Men living in Kentucky have **lung cancer incidence and death rates that are about 3.5 times higher** than those for men living in Utah (7).
<HALF AS LONG	Patients with localized hepatocellular carcinoma, the most common type of liver cancer, who have no health insurance have **overall survival that is less than half as long** as those who have private health insurance (8 months versus 18 months) (8).
35% HIGHER	Men living in the poorest counties in the United States have a **colorectal cancer death rate that is 35 percent higher** than that for men living in the most affluent counties (6).
70% MORE LIKELY	Bisexual women are **70 percent more likely to be diagnosed with cancer** than heterosexual women (9).

Eliminating health disparities for racial and ethnic minorities from 2003 to 2006 would have reduced

Direct medical costs by:
$230 BILLION

Indirect costs associated with illness and premature death by:
>$1 TRILLION

As of 2018, nearly **80 percent** of individuals included in genome-wide association studies—the most common type of research that detects genetic alterations that are associated with disease risk—**were of European descent; 10% were Asian, 2% African, 1% Hispanic, and less than 1% other population groups** (92).

DEATH RATES*

Cancer Type	African Americans	Whites	Rate Ratio
Prostate, males	38.4	18.2	2.11
Stomach	5.3	2.6	2.04
Multiple myeloma	6.0	3.0	2.00
Cervix uteri, females	3.1	2.2	1.41
Breast, females	27.3	19.6	1.39
Colorectal	18.3	13.4	1.37
Liver and intrahepatic bile duct	8.5	6.3	1.35
Pancreas	13.3	11.0	1.21
Lung and bronchus	40.2	39.3	1.02
Kidney and renal pelvis	3.4	3.7	0.92

*Both sexes unless otherwise specified

Data from: SEER Cancer Statistics Review 1975-2016 (Howlader N, Noone AM, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2016, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2016/, based on November 2018 SEER data submission, posted to the SEER website, April 2019.

Our limited knowledge of cancer biology in racial and ethnic minorities diminishes the potential of precision medicine in these populations.

Map of life expectancy: disparities in New Orleans, Louisiana. NOTE: The average life expectancy gap for babies born to mothers in New Or- leans can reach up to 25 years. SOURCE: RWJF, 2013b.

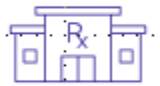
Summary of Factors Leading to Disparities

No One Left Alone (NOLA)

Solving cancer health disparities through new value-based care models

Improve SDoH data collection

Mandate the collection and reporting of key data elements to better understand the sub-populations and their health outcomes



Improve access to cancer care

Increase access to cancer screening

Extend clinic availability, including after hours and weekends

Reduce financial toxicities

Improve access to testing and therapies

Include appropriate biomarker testing

Leverage biomarker findings to select most appropriate treatment options

Lower costs through the use of generics and biosimilars

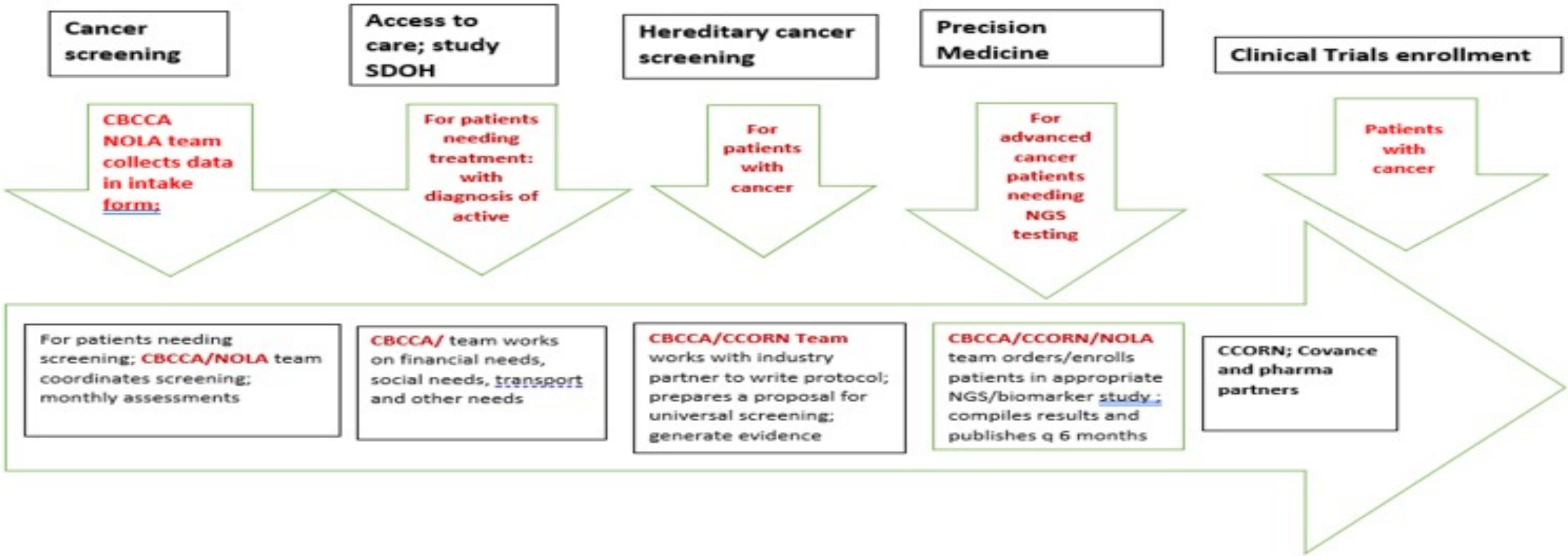
Increase in clinical trial participation

Identify community clinics serving these patient populations

Provide customized patient materials to increase participation

Leverage real world evidence studies to better understand the impact of disparities on patient outcomes

SDoH: Social Detriments of Health



Identified 900 plus patients who did not have cancer screening and arrangements being made for same	Raised close to $3 million last year for OOP cost or free drugs; Created insurance fund and already supported 20 plus patients	Pilot already in place with a large lab with purpose to identify gaps in germline tests; paper expected soon	Three large studies; reached NGS testing rate to 80% plus	**Have started multiple phased studies**

NOLA PATIENT INTAKE FORM/Cancer screening/SDOH/Cognitive assessment needs

TODAYS DATE	Chart No.	
FIRST NAME	LAST NAME DOB:	

1.	What is your country of birth: USA, including Puerto Rico / Other			
2.	How many years have you lived in the United States			
3.	WHAT IS YOUR RACE?			
4.	What is your Gender/sexual orientation: Male / Female/ Transgender /Prefer not to identify			
5.	Sexual orientation: heterosexual/bisexual/LGBT/prefer not to identify			
6.	EDUCATION status	Less than High school/high school/Undergraduate/Graduate/Doctorate		
7.	WHAT IS YOUR MARITAL STATUS?	Married/living as married/Widowed/ Divorced/ Separated/ Never married/ Other		
8.	ANNUAL INCOME? (household)	< than $25,000/ $25,000-$49,999/ $50,000-$74,999/ $75,000-$100,000/$100,000-149,999/$150k-$199,999/ $200,000 or more How many members live on this income		
9.	HOW OFTEN DO YOU FEEL THIS	I DON'T HAVE ENOUGH MONEY TO PAY MY BILLS NEVER / RARELY/ SOMETIMES/OFTEN/ALWAYS		
10.	EMPLOYMENT	FULL TIME/PARTIME/ UN EMPLOYED/RETIRED/SELF EMPLOYED/STUDENT		
11.	IF SELF- EMPLOYED (OR EMPLOYED-FIELDS	Sales/ IT/Hardware Software/Transportation/Homemaker/education/ clergy/ healthcare /hospitality		

Access to healthcare/Transportation

	Do you have a doctor or clinic for your regular care? ***If no where do you get your care***	Yes	No	FQHC/ER/Urgent care
	In the past year, was there a time when you needed health care but could not get	Yes	No	If not why
	Do you have any problems with transportation to your health care visits?	Yes	No	

Language/literacy/Mental Health

	Are you able to communicate with your doctor in your language?	Yes	No	Preferred language
	Do you have cell phone/ access to the internet, if yes, do you use for visit	Yes	No	
	Do you often feel anxious, depressed, or worried? Are you experiencing any memory lapses or forgetfulness? Do you ever feel confused?	Yes	No	If yes, cognitive assessment
	Are you under care from a psychologist and/or mental health counselor	Yes	No	
	Are you on any medications like ~~anti anxiety~~, sleep or opioids	Yes	No	

Food insecurity

	In the past 12 months has there been a point where the food you bought just didn't last and you didn't have money to get more?			If yes, is it often or sometimes
	Within the past 12 months, have you worried that your food would run out before you got money to buy more			If yes, is it ~~often or~~ sometimes

Family responsibilities for family members/friends/social support/community activity

	Are you responsible for child/elder care in your family? Do problems getting childcare make it difficult for you to work/study	Yes	No	
	Do problems getting childcare make it difficult for you to get healthcare?			
	Do you have friends or neighbors support	Yes	No	

Housing: access, utility services, household density

	Do you have any of these problems with your housing? Pest infestation/Mold/ Lead paint or pipes/ Inadequate heat/ Oven or Stove not working/ Water Leaks/ No or non-function smoke detector/ None of the above	Yes	No	If yes, how often
	How many people live in your house/apartment?			
	Do you exercise	Yes	No	
	Do you drink alcohol	yes	No	If yes; daily or a social drinker
	Do you smoke	yes	No	Pack years
	Do you take any recreational drugs	yes	No	

PERSONAL AND FAMILY HISTORY OF CANCER

12. FAMILY H/O	CANCER	(WRITE IN) TYPE OF CANCER?	AGE/YEAR AT DIAGNOSIS
a. SELF	Yes/ No	_____	_____ or Don't know
b. Sibling	Yes/ No	_____ or Don't know	_____ or Don't know
c. Birth mother	Yes/ No	_____ or Don't know	_____ or Don't know
d. Her Parents	Yes/No	_____ or Don't know	_____ or Don't know
e. Her Siblings	Yes/No	_____ or Don't know	_____ or Don't know
f. Father	Yes/No	_____ or Don't know	_____ or Don't know
g. His Parents	Yes/No	_____ or Don't know	_____ or Don't know
h. His Siblings	Yes /No	_____ or Don't know	_____ or Don't know

Colon Cancer Screening Assessment

Does any of your family members had colon cancer	Yes (at what age)	No
Do you have ulcerative colitis/ Crohn's disease or IBD		
Have you been screened or provider discussed colon cancer screening		

Lung Cancer Screening Assessment

Do/Did you smoke	Yes	No
How many packs and years		
Have you been screened for lung cancer	No insurance/did not know/never heard about it (is eligible)	

BREAST Cancer Screening

Have you ever had a discussion with your doctor about the risk/benefits of breast cancer screening with mammogram?		Yes	No
Have you ever had a mammogram? If yes,		If Yes; when	No
Have you ever had a breast biopsy?		Yes	No
If "Yes", result of biopsy	Right/left	. Result: Breast cancer/pre-cancerous	
Have you or anyone in your family been tested breast cancer gene mutation?	Yes	No	If yes, type of mutation

CERVICAL CANCER ASSESSMENT

	Have you ever had a Pap smear?	Yes	No/ Don't know
	27b. If "No", is there a reason why you have not had a Pap smear yet/in the past 2 years?		

Prostate Cancer Screening/:

	Have you ever had your PSA checked	Yes	No/ Don't know

Bone density

	Have you ever had Bone density checked for osteoporosis	Yes	No/ Don't know

Advanced Care Planning

	Do you have a living will or have you completed advance care planning? Do you want us to help you? (will not cost you)	Yes	No/ Don't know

Research: Our cancer center participates in multiple national research studies to develop understanding about cancer, how it occurs, what tests help us, how best to develop new treatments and how to bring equity, equality and better access to all socioeconomic class of individuals (all of these studies are in full compliance of regulatory agencies like Office of Human Research Protection ACT)

Would you be willing to participate in research to better understand disease process by certain tests (blood or tissue)	yes	no	If not why
Would you be willing to participate in a research that helps develop newer drugs for cancer patients (including for you or future)	yes	No	If not, why

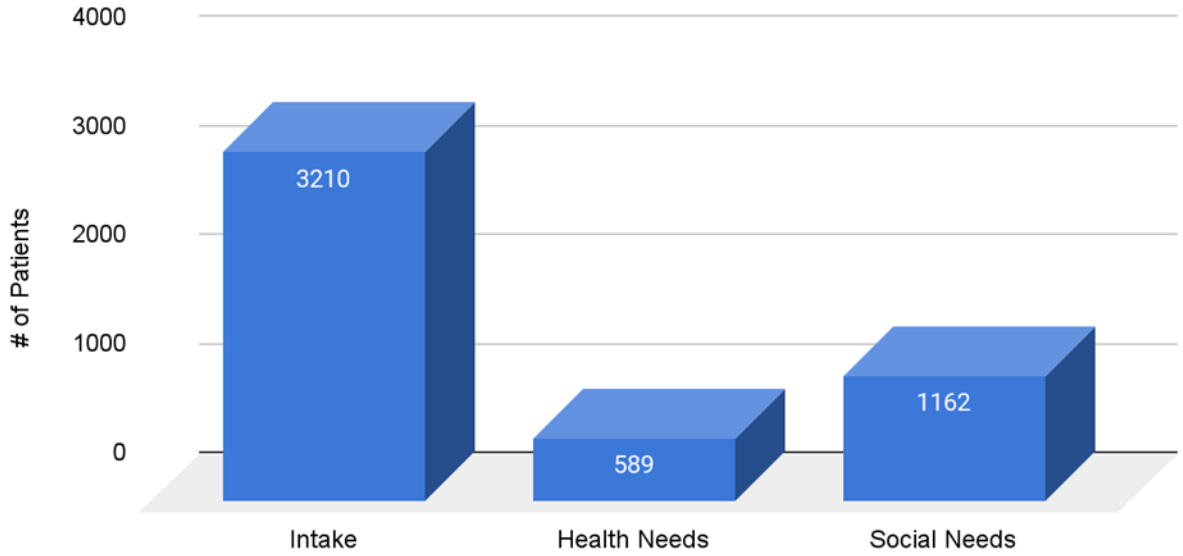
PATIENT SIGNATURE _____ *date*

TASK List

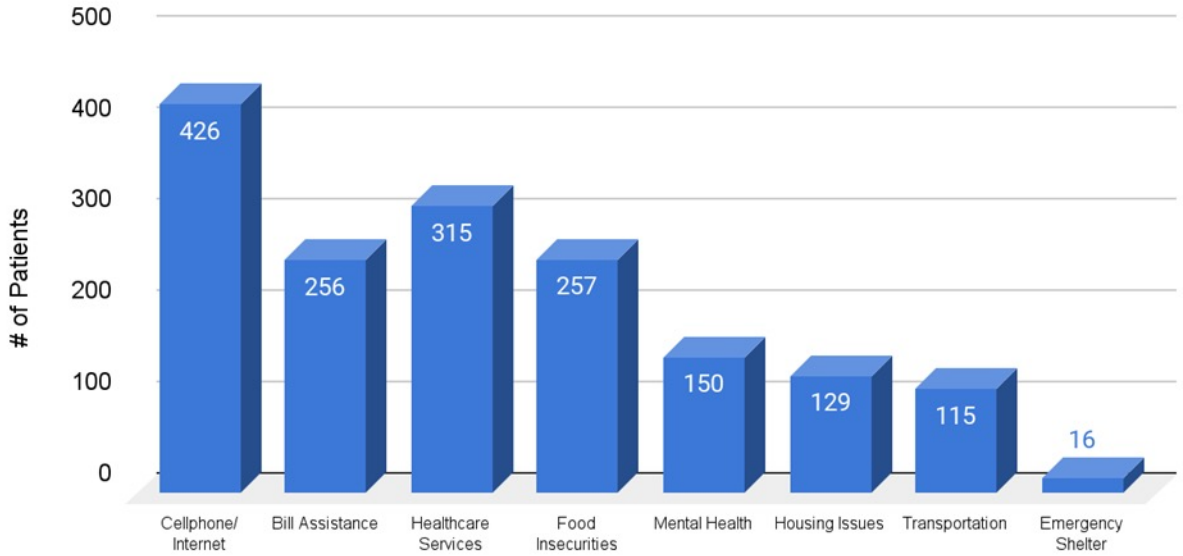
Reviewed by and action plan

CANCER SCREENING SERVICES Needed	**Yes/No**	**Scheduled**
BREAST		
CERVICAL		
COLORECTAL		
LUNG		
PROSTATE		
Bone density		
SMOKING CESSATION		
Alcohol counselling		
Depression/Mental health counselling/cognitive screening		
Research participation		
Advance Care Planning		
Other		
Other SERVICES; DSS/Financial counsellor	**YES/No**	**Referral/assistance**
Medicaid/Dual Eligibility? LISS/DSS		Catawba agency on ageing/Norrell/Congressional office
Health Insurance/ACA/Other		
Foundation support		CBCCA financial counsellor/Pharmacy team
Free drugs		CBCCA financial counsellor/Pharmacy team
Mental Health Services		
Transportation		
Housing/Free clinics/FQHC/Food/Utility/Other		

NOLA Intake



Type of Social Need



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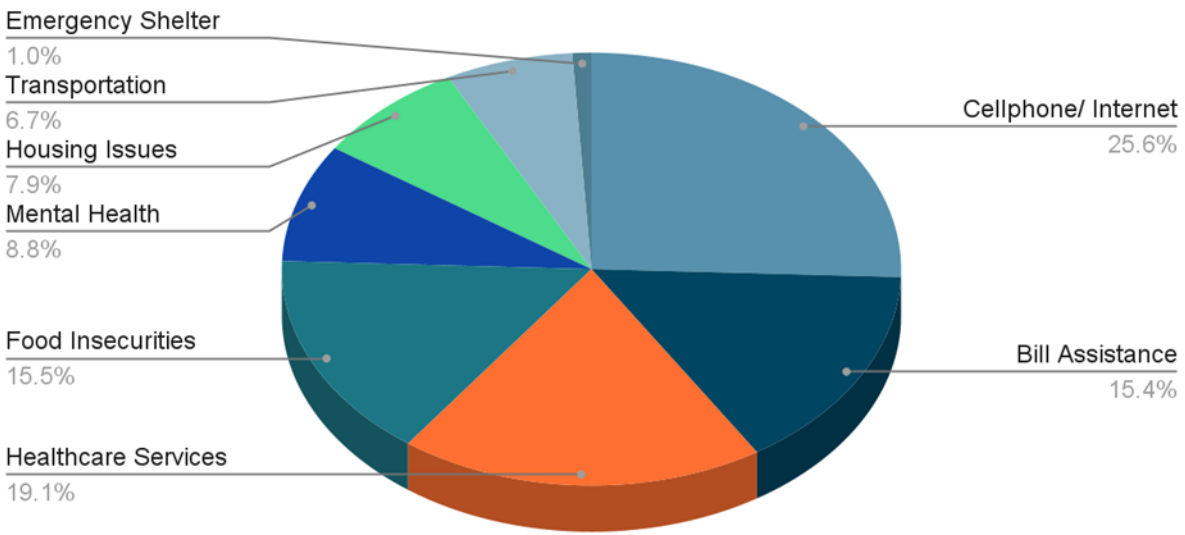
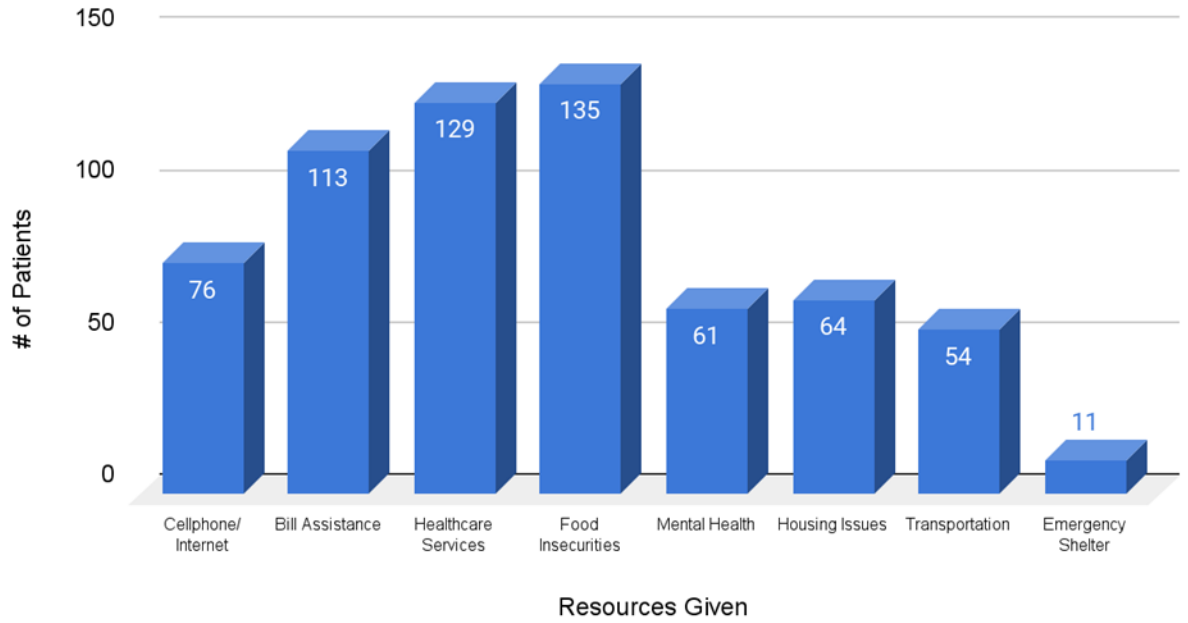


Types of Resources Given



Principal Illness Navigation (PIN)

Documentation requirements
Informed consent; verbal should suffice
Care plan:
Include cancer, stage and co-morbidity
Mention specific HrSN and SDOH
Any findings from ROS
Assessment and plan to include cancer, stage and co-morbidity, Any findings from ROS
Assessment and plan to include patient-driven goals aiming for remission and/or palliation, reducing symptoms burden
Maintain quality of life, care coordination, monitoring labs and medication side effects on regular basis, care coordination with other providers. Patient and/or family input was considered in preparation of comprehensive care plan.
Use CPT code G0023 for initial visit 60-minute time (care plan) and plan for monthly follow up (increment of 30-minute CPT code: G0024). For elaborate information PIN algorithm

Where services can be used

Providing tailored support as needed to accomplish the practitioner's treatment plan—post-chemotherapy or post-office visit follow up for side effects management;
Providing the patient with information/resources to consider participation in clinical trials/research

Identifying or referring patient (and caregiver or family) to appropriate supporting services including community resources for SDOH

Helping the patient contextualize health education, patient's treatment team with the patient's individual needs, goals, preferences and SDOH need(s)

Calling patients to act on abnormal labs, schedule follow-up appointments or additional tests as well as appointment to see another MD
Follow up after an emergency department visit; or discharges from hospitals and/or other healthcare facilities

Health care access/health system navigation: coordinating receipt of needed services as well as scheduling appointment with other healthcare practitioners, providers and facilities; home and community-based service providers and caregiver education

Community resource health integration

Documentation requirements
Informed consent; verbal should suffice
Care plan:
include cancer, stage and co-morbidity
Mention specific HrSN and SDOH
Any findings from ROS
Assessment and plan to include Assessment and plan to include what resources are provided and which entity; Plan to call monthly
Maintain quality of life, care coordination, care coordination with other providers
Patient and/or family input was considered in preparation of comprehensive care plan.
Use CPT code G0136 once for SDoH ; G0019 for initial visit 60-minute time (care plan) and plan for monthly follow up (increment of 30-minute CPT code: G0020); For elaborate information see CHI algorithm
Even if patient does not need any help, please use G0136 for SDoH assessment once every six months

Zcodes:

Z55 education and literacy: coordinate appropriate health education. Follow common algorithm per central box

Z59 housing and economics: financial assistance, shelter and other OOP costs

Z60 social environment: problems related to social environment. Connect patient to support groups

Z62 upbringing

Z63 primary support group, including family circumstances: coordinate support groups

Z56 employment: connect patient to local resources

Z57: occupational exposure to risk factors: connect patient to local county resources