

#### **Introduction**:

The members of the Brooklyn Health Disparities Center (BHDC)'s Community Advisory Board (CAB) were asked to participate in a Delphi survey in order to identify the health issues, research topics, and policy recommendations that were priorities for the communities they serve. The Delphi method is a technique that is widely used for gathering group consensus, and can be used to generate a research agenda that captures the shared views of a group. This information will be used to facilitate grant writing and project development between researchers and community leaders/members.

#### **Methods:**

The survey was conducted over the course of several months with three month intervals between each phase. The panel consisted of the 12-members from our CAB, who serve areas across New York City. The Delphi survey process aimed to gather information in four key areas, they include the social determinants of health, health concern, proposed research activity and policy recommendations as it pertains to the communities they serve. Phase one of the Delphi method used a six-question open ended survey, that covered four areas of exploration. This survey yielded over 40 responses per question. The answers were then merged and compiled to create selection choices for phase two. Phase two was prepared in the format of a Likert scale and uploaded to an online survey service (Survey Monkey). Responses from phase two revealed the top ten to thirteen priorities under each topic, with some priority issues receiving the same ranking. For Phase three, the CAB members ranked the responses, generated in Phase two, on a scale of one to ten with one corresponding to an issue of high priority and ten to lower priority issue in the communities they serve.

#### **Results:**

Participation varied throughout the Delphi survey process (91%, 75% and 83%, for phases one, two and three respectively). The topics were kept consistent throughout the Delphi survey process; and, the responses were eliminated based on ratings, to narrow down to the top ten in each question. Below are the top three responses in the four areas explored. The top ten responses can be found in Appendix I.

Rank	Social Determinant	Score	Rank	Research Activity	Score
1	Socioeconomic status	8.40	1	Pilot and evaluate strategies to increase the level of physical activity	7.56



2	Housing insecurity	7.40	2	Evaluate the impact of access to healthy food and dietary choices	7.22
3	Unemployment	7.30	3	Evaluate the effectiveness of current community health programs	6.67
	Health Concern			Policy Recommendation	
1	Health Concern Hypertension	6.50	1	Policy Recommendation Increase affordable housing	10.40
1 2		6.50 6.20	1 2	· ·	10.40 10.30

#### **Discussion**

Participation in the Delphi survey process varied throughout the phases. Three organizations changed there point of contact person, and another three organizations moved there headquarter location, which attributed to the three month period between each phase. This was done to ensure that the maximum number of organizations would be able to submit their input.

This round of the Delphi survey varied in some ways from the Center's previous Delphi survey process, which resulted in the shared community research agenda in 2010. Nevertheless, there were several health concerns and policy recommendations that reoccurred. Similarities in health concerns across the two surveys periods were noted for diabetes, obesity, and hypertension; and these similarities mirror the statistics for Brooklyn and in New York City. There are some areas in Brooklyn such as Bedford Stuyvesant where rates for diabetes and hypertension are more than twice that of NYC overall at 45.3 per 100,000 and 21.9 per 100,000 respectively (NYC Community Health Profile, 2015). Diabetes has become increasing prevalent illness across the nation (National Diabetes Surveillance System, 2016). In the United States, 29.1 million people are affected by diabetes, 27.8% of these individuals are undiagnosed. Hypertension accounts for 1,100 deaths each day (National Diabetes Statistics Report, 2014). Having one or either of these illnesses places one at risk for heart disease and stroke, which are the leading causes of death in the U.S and in NYC. In the U.S, two in three adults are considered obese, which places them at risk for diabetes, hypertension and heart disease. Therefore, it is important to address these risk factors since they contribute to comorbidities and ultimately poorer health outcomes, if not addressed.

Two of the research activities that ranked in the top three, 'Pilot and evaluate strategies to increase the level of physical activity' and 'Evaluate the impact of access to healthy food and dietary choices," are widely accepted means to reducing one's risk for hypertension, diabetes and



obesity. In addition to the research activities proposed by the panel, the Centers of Disease Control and Prevention and New York City of Health and Mental Hygiene has several initiatives aimed at addressing the diabetes epidemic, some of which include:

- Diabetes Action Toolkit
- National Diabetes Prevention Program
- Take Care New York 2020
- National Diabetes Education Program

The policy recommendations highlighted by the Delphi survey include increasing affordable housing, providing free health care and the decreasing closure of hospitals in poor neighborhoods. These items are currently on the policy agenda of both the City and the nation. Lack of health insurance was also identified as a social determinant of health during the Delphi survey process. The Affordable Care Act aims to allow for affordable health care and coverage for all. In addition, NYC launched the GetCovered initiative to increase health insurance enrollment. In 2016, it was reported that funding for affordable housing would create rent protected housing for more than 40,000 families, and build 20,800 affordable apartments in NYC; and, funding would also go to repair NYCHA buildings. Protecting an individual's home is one means of creating a healthier nation. Housing insecurity, and unsafe housing were ranked second and eighth as the social determinants of health that affect neighborhoods in Brooklyn. The top ranked social determinants were socioeconomic status (living on or below the poverty line), housing insecurity, and unemployment.

### Conclusion

The Delphi survey method brought a consensus to issues faced by community members in Brooklyn neighborhoods. There are some initiatives that have been launched to address the identified topics such as housing, health care, diabetes, hypertension and obesity. Through this process, housing and mental health services were ranked as key priority areas. Although mental health did not rank in the top three in any of the areas explored by the Delphi survey, it was evident in all areas, ranking sixth as a social determinant, ninth as a health concern, tenth as a health related research topic, and tenth as a policy recommendation. The City has recognized this need through the initiative ThriveNYC, which aims to train 250,000 New Yorkers in Mental Health First Aid. This will reduce stigma, and raise awareness of mental illness, thereby, allowing more people to seek and be linked to the services they need.



Although, not all of the policy recommendations or health concerns are being addressed on a political agenda, the results from this Delphi survey process may serve to justify the services and changes needed to reduce the disparities within neighborhoods across New York City, and primarily in Brooklyn.



### Reference

Center for Disease Control and Prevention, National Diabetes Surveillance System, 2016. Available from: https://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm

Center for Disease Control and Prevention, National Diabetes Statistics Report, 2014. Available from: <a href="https://www.cdc.gov/diabetes/data/statistics/2014statisticsreport.html">https://www.cdc.gov/diabetes/data/statistics/2014statisticsreport.html</a>

New York Department of Health and Mental Hygiene, New York City Community Health Profiles, 2015. Available from: <a href="https://www1.nyc.gov/site/doh/data/data-publications/profiles.page">https://www1.nyc.gov/site/doh/data/data-publications/profiles.page</a>



### APPENDIX I

## **Social Determinant**

Rank	Issue	Score
1	Socioeconomic status	8.40
2	Housing insecurity	7.40
3	Unemployment	7.30
4	Lack of health insurance	6.80
5	Racial Trauma	6.11
6	Lack of or limited access to mental health services	5.70
7	Food insecurity	5.60
8	Unsafe housing	5.50
9	Limited access to healthy foods	5.20
10	Lack of dental insurance	4.50

## **Health Concern**

Rank	Health Concern	Score
1	High Blood Pressure	7.50
2	Diabetes	7.20
3	Obesity	6.40
4	High Cholesterol	6.20
5	Psychological Trauma	5.70
6	Asthma	5.60
7	Heart Disease	5.40



8	Breast Cancer	5.00
9	Mental Illness	5.00
10	Arthritis	4.29*

<sup>\*</sup>this value was taken from phase two, not phase three.

## **Health Related Research**

Rank	Issue	Score
1	Pilot and evaluate strategies to increase the level of physical activity	7.56
2	Evaluate the impact of access to healthy food and dietary choices	7.22
3	Evaluate the effectiveness of current community health programs	6.67
4	Conduct ethnographic research in order to get a better understanding of community behaviors	5.67
5	Evaluation of diet on health outcomes	5.67
6	Evaluate the impact of food stamps to improve health	5.33
7	Conduct a survey to identify the relationship between stress and hypertension	5.00
8	Conduct needs assessment to identify youth services in North and Central Brooklyn	4.56
9	Conduct a survey to identify the relationship between substance abuse, diabetes and HIV/AIDs	3.78
10	Evaluate the need of mental health services to refugees	3.56



## **Policy Recommendation**

Rank	Issue	Score
1	Increase affordable housing	10.40
2	Completely free health care	10.30
3	Decrease closure of hospitals in poor neighborhoods	7.90
4	Increase funding to support community based youth services	7.90
5	Mental health and health care givers should be required to receive cultural competency courses	7.70
6	HIV/STD testing should be a part of regular annual check –up	7.56
7	Address the poor education system	7.20
8	All health care policy should be viewed from an anti-oppression lens before implementation	7.00
9	Free college education	6.80
10	Policy that gives youth access to mental health services	6.20