THE METRICS MATRIX:

EVIDENCE-BASED CARE-DELIVERY BASED INTERVENTIONS FOR ADVANCING POPULATION HEALTH

NYAM PRIMARY CARE AND POPULATION HEALTH WORKING GROUP

"BETA-TESTING" VERSION

PLEASE SEND COMMENTS AND FEEDBACK TO: ANNA POMYKALA, JD: APOMYKALA@NYAM.ORG

The New York Academy of Medicine's Primary Care and Population Health Working Group evaluated a spectrum of local, state, and national recommendations to create a "Metrics Matrix" of evidence-based interventions employable across a spectrum of clinical, community-based and health system actors. These interventions are organized around a common set of 11 high-priority population-based metrics, with a spotlight on health disparities. Taken together, the Metrics Matrix is intended to provide a framework to foster strategies to integrate evidence-based interventions that advance population health into primary care and other settings.

The New York Academy of Medicine Primary Care and Population Health Working Group is comprised of representatives from academia, New York City and State health departments, payors, community health centers, and major hospital systems. The Working Group's mission is to ensure that population health is central to the implementation of health care reform, with a special focus on urban communities.

Among the high-priority obstacles to greater collaboration between clinical and public health entities identified by the Working Group is the lack of an organizing framework for achieving mutually-valued population health goals. To this end, the PCPH Working Group set out to create a "Metrics Matrix" of evidence-based interventions employable across a spectrum of clinical- and community-based actors, and oriented around a set of high-priority population-based metrics.

In reviewing metrics, we evaluated multiple priority-setting agendas at the local, state, and national levels. We prioritized metrics that would be ambitious yet realistic for a broad range of community stakeholders, as well as those that articulated the most specific benchmarks. Almost all of the metrics utilized apply to total populations in a geographic area, rather than populations in care or subpopulations with already-diagnosed disease. In each case, the metrics proposed by New York City and New York State most explicitly met these organizing criteria and thus were used as the foundation for the matrix.

We also sought to separate out and elevate any metrics that specifically addressed the elimination of health disparities, which are pulled out and displayed separately in the bottom left of each figure. It should be emphasized that there was a notable lack of clear and specific metrics focused on health disparities to consider among national agendas.

Metric Sources Reviewed:

- New York State Prevention Agenda
- Take Care New York
- National Quality Forum
- National Prevention Strategy
- HHS Action Plan to Reduce Racial and Ethnic Health Disparities
- National Stakeholder Strategy for Achieving Health Equity

In our review of interventions, we considered both clinical and non-clinical approaches, with the highest priority reserved for interventions with the strongest supportive evidence base. Our intention was not to create an exhaustive database, but rather to propose a framework to build upon and to provoke conversation about how to create a collaborative and multi-disciplinary population health system.

Intervention Recommendation Sets Reviewed:

- CDC Community Guide
- U.S. Preventive Services Task Force
- Mobilizing Action Toward Community Health
- NYAM Compendium of Proven Community-Based Prevention Programs

Using the Take Care New York and New York State Prevention Agenda as foundational sources, a set of 11 metric domains was used to scaffold the matrix. These 11 domains were cross-checked with other priority-setting agendas—such as the National Prevention Strategy—and were demonstrated to be a "superset" of the domains used by other efforts. The accompanying literature survey conducted by the Working Group also informed the selection of these domains.

Domains:

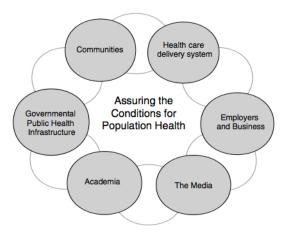
- 1. Tobacco
- 2. Chronic Disease Management
- 3. Access to Quality Health Care
- 4. Promote Physical Activity and Health Eating
- 5. Infectious Diseases
- 6. Mental Health
- 7. Alcohol and Substance Abuse
- 8. Cancer
- 9. Maternal and Child Health

- 10. Healthy Environment
- 11. Unintentional Injuries

Finally, interventions were stratified according to which actor in the health system bears primary responsibility for implementation. While some interventions are irreducibly crosscutting across actors, it was attempted to assign *primary* responsibility where possible. Definitions for the various groups of actors were drawn from the literature and previous analyses as described below.

Actors:

- Clinician: any health care provider who is accountable for addressing a large majority of
 personal care needs, developing a sustained partnership with patients, and practicing in
 the context of family and community (Institute of Medicine, Defining Primary Care, 1994)
- Patient-Centered Medical Home: a health care setting for providing comprehensive primary care by facilitating partnerships between individual patients, their personal physicians, and the patient's family (Patient-Centered Primary Care Collaborative, 2007)
- Community Partners: groups that collaborate due to affiliation by geographic proximity, special interests, or similar situations with respect to issues affecting their well-being (Centers for Disease Control and Prevention, Principles of Community Engagement, 1997, also Figure below)
- Government: local, state, and national agencies dedicated to public health or health care delivery, as well as activities of other agencies affecting broader determinants of health (e.g. housing, transportation, education, economic development etc.)
- Payors: public and private sources of funding for health care delivery and public health interventions (note that payors' practices regarding covered services are not specifically included)



Institute of Medicine, The Future of the Public's Health in the 21st Century, 2002.

NYAM PRIMARY CARE AND POPULATION HEALTH WORKING GROUP

Metrics Matrix

	Clinician	РСМН	Community Partners	Government	Payors	
Talaaaa	Screen for tobacco	Plug in to quit lines and support (CGR)	Partnering with	Increasing the unit price for tobacco (CGR, MATCH, NYAM)	Reducing out-of- pocket costs for	
Tobacco Candidate	use, advise to quit, and provide cessation interventions	Mobile phone-based cessation	neighborhood retailers	Coordinated mass media education campaigns (CGR, NYAM)	effective cessation therapies (CGR)	
metrics: TCNY – Be Tobacco	(USPSTF A)	interventions (CGR)		School-based education campaigns (CGR)		
Free •Reduce % adults who currently smoke •Reduce % high-	Screen all pregnant women for tobacco use and provide tailored counseling (USPSTF A)	Healthcare provider reminder systems	Community-based screening initiatives (NYAM)	Smoking bans and restrictions (CGR, MATCH)	Incentives and competitions to increase cessation	
school students who currently smoke		(CGR)			Offering free NRT (CGR)	(CGR)
 Reduce deaths from smoking- related illnesses 		men for tobacco se and provide lored counseling Incentives and competitions to increase cessation	Patient navigators to identify and connect with resources	Mobile phone-based cessation interventions (CGR)	Funding worksite	
NYPA – Tobacco Use •Reduce % adults				Quit lines and support (CGR)	cessation programs (NYAM)	
who currently smoke •Reduce % adolescents who smoked in past month		Universal panel screening	Partnerships with	Supporting/facilitatin g coalitions and community-wide strategy	Funding community- based prevention initiatives	
•Reduce rate of			schools, faith-based groups	Retailer education		
hospitalizations •Reduce lung cancer incidence		Data sharing with public health institutions	groops	Reconciling community-wide metrics	Value-based purchasing	
Focus on Disparities •Reduce education-level disparity in smoking (TCNY)	Connect to quit lines and support			Community-wide data collection and surveillance		
	(CGR)	Patient navigators to identify and connect	Community education to reduce exposure in the	Funding community- based prevention initiatives	Data sharing with providers and public health institutions	
		with resources	home	Data compilation and sharing with payors and providers		

	Clinician	РСМН	Community Partners	Government	Payors
Chronic Disease Management	Aspirin for indicated 45- 79 men, 55-79 women (USPSTF A)	Disease management programs(CGR)	Self-management education in	Self-management education programs in schools, camps, worksites	
Candidate metrics:	Screen for HBP age ≥18 (USPSTF A)	quit lines and support (CGR)	community gathering places (CGR)		
TCNY Be Heart Healthy •Reduce rate of premature deaths from	Screen lipids men ≥ 35, women ≥25 (USPSTF A)	Case management interventions to improve glycemic control in DM (CGR)			
major CVD Reduce racial/ethnic disparity Increase % adults with HTN who need Rx getting Rx Increase % adults with	Screen for tobacco use, advise to quit, and provide cessation interventions (USPSTF A)	Team-based care to improve blood pressure control (CGR)			
HLD who need Rx getting Rx •Reduce rate of preventable hospitalizations (from	AAA screen 65-75 male ever smokers (USPSTF B)	Intensive behavioral dietary counseling for those with HLD or other chronic disease			
Promote Quality Health Care for All metric) NYPA Chronic Disease •Reduce % adults with	Screen lipids increased risk men 20-35, women 20-45 (USPSTF B)	screen adults for obesity and offer weight loss			
DM •Reduce rate of hospitalization for short- term complications of	Screen for DM in those with HTN (USPSTF B)	counseling (USPSTF B)			
DM •Reduce rate of hospitalization for CHD	Intensive behavioral dietary counseling in those with HLD or other Chronic disease risk factors (USPSTF B)	Healthcare provider reminder systems			
hospitalization for CHF •Reduce CVA mortality rate		Patient navigators to identify and connect with resources and educate in the home			
Focus on Disparities •Reduce racial/ethnic disparity in rate of premature deaths from major CVD (TCNY)	parity in rate of and offer weight loss and offer weight loss				

	Clinician	РСМН	Community Partners	Government	Payors						
Access to Quality Health Care Candidate metrics: TCNY Promote Quality Health Care for All •Reduce rate of	Reduce inappropriate care through patient shared decision making, by providing incentives for providers to educate patients about treatment alternatives through decision aids that help people understand options and consider the personal importance	Expand scope of practice for nurse practitioners, i.e., expand the types of services nurse practitioners may provide and the settings where they may practice independently of a physician (MATCH) Cultural competency training for health	Programs to recruit and retain staff who reflect the community's cultural diversity (MATCH)	Expand use of community health workers by improving role definition and education curricula and increasing funding (MATCH) Increase use of telemedicine as a way for patients to access qualified health and mental health professionals (MATCH)	Implement payment reform to change incentives toward quality (MATCH)						
preventable hospitalizations •Reduce % adults who did not get needed medical care NYPA	of possible benefits and harms (MATCH)	care providers – (MATCH) Provide case management		Encourage enrollment in existing programs such as Medicaid via outreach/education and expedited enrollment (MATCH)							
Access to Quality Health Care •Eliminate uninsurance •Increase % with PCP •Increase % who have seen a dentist in past		programs involving assignment of a single person (case manager) who coordinates all aspects of a patient's care, e.g., providing information to multiple providers, seeing that the patient receives services in a timely manner, etc (MATCH)	assignment of a single person (case manager) who coordinates all aspects of a patient's	assignment of a single person (case manager) who coordinates all aspects of a patient's	assignment of a single person (case manager) who coordinates all aspects of a patient's	assignment of a single person (case manager) who coordinates all aspects of a patient's	assignment of a single person (case manager) who coordinates all aspects of a patient's	assignment of a single person (case manager) who coordinates all aspects of a patient's care, e.g., providing	Culturally specific health care settings	Link electronic health records across systems (MATCH)	
year Focus on Disparities Reduce individual income-level disparity in % adults who did not get needed medical care (TCNY)				Institute standardized quality/performance measurement and reporting, e.g., publicly releasing performance data							
modicarcare (TCIVI)			Use of linguistically and culturally appropriate health education materials	stimulates quality improvement activity at the hospital level (MATCH)							

	Clinician	РСМН	Community Partners	Government	Payors
Physical Activity	Intensive behavioral dietary	Allied health professional- led weight loss counseling and behavioral	Social support interventions in	Worksite nutrition and physical activity programs (CGR)	Worksite nutrition
and Healthy Eating	and Healthy Eating Candidate metrics: Counseling in those with HLD or other chronic disease risk factors	interventions (USPSTF B, CGR, NYAM)	community settings (CGR, NYAM)	Street-scale urban design and land use policies (CGR)	and physical activity programs
o o			Promote exercise and recreation in	Social support interventions in community settings (CGR, NYAM)	(CGR, MATCH)
TCNY		Behavioral interventions to reduce screen time (CGR)	communities, e.g., by allowing evening access	Enhanced school-based physical	Reduce health insurance
Promote Physical Activity and Healthy	Screen adults for obesity		to school recreational facilities (MATCH)	education (CGR, NYAM)	premiums for fitness club members (MATCH)
Eating •Reduce % adults who consume ≥ 1 SSB/day	and offer weight loss counseling (USPSTF B)	Mobile phone-based weigh loss interventions	Promotion of reduced screen time	Creation of or enhanced access to places for physical activity combined with informational outreach activities (CGR, MATCH)	Reducing out-of- pocket costs
 Reduce % adults eating 0 servings fruits/vegetables previous 	(031 311 1)	Proactive panel screening		Community-scale urban design and land use policies (CGR)	weight management programs
day • Reduce % adults		Health care provider reminder systems		Campaigns to reduce screen time (CGR)	
physically inactive •Stabilize % adults who are obese		Allied health professional- Screen led intensive behavioral	Partnering with neighborhood retailers; e.g., provide point-of- purchase prompts to highlight healthier alternatives such as fruits and vegetables (MATCH)	Supporting/facilitating coalitions and community-wide strategy (CGR, NYAM)	Incentives and competitions to increase healthy behaviors
NYPA Physical Activity and Nutrition				Point-of-decision prompts to encourage use of stairs (CGR, MATCH)	
•Reduce % WIC-enrolled children 2-4y who are				Label foods to show serving size and nutritional content (MATCH)	
obese •Reduce % children 6-11y who are obese				Make water available and promote consumption of water in place of sweetened beverages (MATCH)	
•Reduce % children 12- 19y who are obese	children ≥6y for obesity	dietary counseling in those with HLD or other Chronic		Tax on sugar-sweetened beverages	
•Reduce % adults who	and offer	disease risk factors (USPSTF		Trans fat ban	
are obese •Increase % adults	weight loss behavioral	В)		Subsidizing healthy foods (MATCH)	Value-based
engaged in leisure-time physical activity	interventions (USPSTF B)		Community-based screening initiatives	Coordinated mass media education campaigns (NYAM)	purchasing
•Increase % adults who consume			(NYAM)	Negotiate salt reduction in food supply	Funding community-based
fruits/vegetables ≥5 times/day •Increase % mothers who breastfeed at 6 months Focus on Disparities			Partnerships with schools,	Sugar-sweetened beverage size limits	prevention initiatives
			faith-based groups	Limit access to non-nutritious food in schools (MATCH, NYAM)	
 Reduce neighborhood income-level disparity in 		Incentives and		Retailer education	Data sharing with providers and
% adults eating 0 servings fruits/vegetables previous		competitions to increase healthy behaviors	Community education to support healthy lifestyle	Transportation and	public health institutions
day (TCNY)		Data sharing with public health institutions	(NYAM)	travel policies and practice	

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Infectious Diseases	Screen for chlamydia in sexually active women ≤ 24y (USPSTF A) Screen for HIV in all adolescents and adults at increased	Home visits to increase vaccination rates (CGR)	Worksite, free or reduced-cost, actively promoted vaccination campaigns (CGR)	Free vaccination programs (CGR)	Reducing out-of- pocket costs for vaccinations (CGR)
Candidate metrics: TCNY Stop the Spread of HIV and Other STIs	risk (USPSTF A) Screen for syphilis for all at increased risk (USPSTF A) Screen all pregnant	. ,	Offer condom availability programs that provide condoms free of	Comprehensive sexual health risk reduction interventions for	
•Increase % MSM reporting 100% condom use with anal sex	women for syphilis (USPSTF A)		charge or at a reduced cost and that can be	adolescents (CGR)	
Reduce rate of HIV/AIDS-related deaths Increase % adults ever tested for HIV Increase % sexually active women <26yo	Behavioral interventions to increase barrier protective behaviors among MSM (CGR)		implemented in a variety of settings (MATCH, NYAM)	Interventions coordinated with community service to reduce sexual risk behaviors in	
screened for chlamydia •Increase % girls ages 13-17 who have received HPV vaccination	High-intensity behavioral counseling to prevent STIs for adolescents and adults at		Implement service learning programs, i.e., youth development programs that include a volunteer	adolescents (CGR) Outreach campaigns to increase barrier protective behaviors among MSM (CGR)	
NYPA Infectious Disease •Reduce incidence of	increased risk (USPSTF B) Screen for chlamydia	Describe to the springer	component (often linked to academic		
HIV •Reduce incidence of gonorrhea	in pregnant women ≤ 24y (USPSTF B)	Provide behavioral counseling to prevent STIs for adolescents	instruction)and that may include a health curriculum but also		
•Reduce incidence of TB •Increase % adults >65y who receive recommended vaccines Focus on Disparities •Reduce racial/ethnic disparity in rate of HIV/AIDS-related deaths (TCNY)	Screen for gonorrhea in all sexually active women (USPSTF B)	and adults at increased risk (USPSTF B)	address nonsexual factors (MATCH)	Abstinence education	
	Vaccinate males and females for HPV	Provide partner counseling and referral services for HIV-positive people and their sexual or needle-sharing partners (MATCH)	Behavioral intervention program to reduce the risk of contracting HIV among high-risk individuals and to reduce risk of transmission among people living with HIV (NYAM)	interventions for adolescents	

	Clinician	РСМН	Community Partners	Government	Payors
Mental Health Candidate metrics: TCNY - Recognize and Treat Depression •Reduce % adults with psych distress not receiving Tx •Reduce rate of suicide •Stabilize % adults	Screen all adolescents for depression and offer behavioral and pharmacologic treatments (USPSTF B)	Collaborative care for the management of depressive disorders (CGR)		Community based	
with psych distress interfering with life or activities NYPA – Mental Health Reduce suicide mortality rate Reduce rate of self-reported poor mental health Focus on Disparities Reduce racial/ethnic disparity in % adults with psych distress not receiving Tx (TCNY)	Screen all adults for depression and offer behavioral and pharmacologic treatments (USPSTF B)	Clinic-based depression care management (CGR)	Home-based depression care management (CGR)	Community-based exercise interventions to reduce depression	

	Clinician	РСМН	Community Partners	Government	Payors
Alcohol and Substance Abuse Candidate metrics: TCNY - Reduce Risky Alcohol Use and Drug Dependence	Screen for alcohol misuse and provide behavioral counseling (USPSTF B)	Behavioral counseling for alcohol misuse (USPSTF B)		Dram shop liability (CGR, MATCH) Increasing alcohol taxes (CGR, MATCH) Maintaining limits on days of alcohol sale (CGR, MATCH) Maintaining limits on hours of alcohol sale (CGR, MATCH)	
Reduce rate of alcohol-related hospitalizations Reduce rate of unintentional drugrelated overdose deaths Reduce high-school students who consumed alcohol in past 30d NYPA – Substance Abuse Reduce % adults reporting episode of binge drinking in past month Reduce rate of drugrelated hospitalizations Focus on Disparities Reduce neighborhood-level disparity in rate of unintentional drugrelated overdose deaths (TCNY)	Increase use of buprenorphine, suboxone for opioid dependence	Social worker support	Introduce school- and community-based prevention programs such as instructional programs, peer organizations such as Students Against Destructive Decisions (SADD), social norming campaigns, and restricting alcohol advertising placement (MATCH)	Public control of retail alcohol sales (CGR, MATCH) Regulation of retail alcohol outlet density (CGR, MATCH) Overservice law enforcement initiatives (MATCH) Responsible beverage service training (MATCH) Counter-advertising media campaigns Increase job placement services and alternatives to incarceration programs Use sobriety checkpoints where law enforcement officers can stop drivers to assess their level of alcohol impairment (officers must have reason to suspect a driver has been drinking before testing) (MATCH)	

	Clinician	РСМН	Community Partners	Government	Payors
Cancer	Screen for colorectal cancer ages 50-75	Provider reminder and recall systems (CGR)		Subsidize or provide free screening interventions	
Candidate metrics: TCNY – Prevent and	(USPSTF A)	Reducing structural barriers to screening (CGR)		(CGR	
Detect Cancer •Increase % adults ≥50y who have had colonoscopy in past 10y •Reduce rate of CRC deaths	Pap smear every 3 years women ages 21-65 (USPSTF A)	Provider assessment and feedback (CGR)		Mass media education campaigns on screening interventions	
•Increase % girls 13- 17y who have received HPV vaccination NYPA – Access to	BRCA screening and genetic counseling in women with high risk breast cancer family	Proactive panel identification of patients due for screening		(CGR)	Reduce or eliminate client out-of-pocket costs for screening interventions (CGR)
Quality Health Care Increase % breast, cervical, and colorectal CA	history (USPSTF B) Discuss chemoprevention for	Provider incentives for screening		Skin cancer education in primary school	
diagnosed at early stage •Reduce mortality rate for breast, cervical, and	women at high risk for breast cancer (USPSTF B)	Social media materials to promote screening		settings (CGR)	
colorectal CA Focus on Disparities •Reduce racial/ethnic disparity in rate of CRC deaths (TCNY) Mammog 2 years for ages	Mammograms every 2 years for women ages 50-74 (USPSTF B)	Skin cancer behavior education		Skin cancer education in outdoor recreation settings (CGR)	

	Clinician	РСМН	Community Partners	Government	Payors
Maternal and Child Health	Provide 0.4-0.8mg folic acid supplement to women capable of pregnancy (USPSTF A) Prophylactic ocular topical anti- gonorrheal for newborns (USPSTF	Health care system- based interventions for increase vaccination rates (CGR)		Center-based, comprehensive early childhood development programs for low income children aged 3-5y (CGR)	
Candidate metrics: TCNY Raise Health Children	A) Screen for PKU in newborns (USPSTF A) Rh blood testing at first prenatal	Immunization information systems (CGR)	Center-based, comprehensiv e early	Vaccination programs in schools and child care centers (CGR)	
 Reduce rate of teen pregnancies Reduce infant mortality rate 	visit (USPSTF A) Urine culture for pregnant women 12-16 weeks gestation (USPSTF A)	Provider assessment and feedback	childhood development programs for low income	Vaccination programs in WIC settings (CGR)	
 Increase % mothers who breastfeed exclusively for 	Screen pregnant women for syphilis (USPSTF A)	(CGR)	children aged 3-5y (CGR)	Community water fluoridation (CGR)	
2 months NYPA Healthy Mothers, Healthy Babies, Healthy Children	Screen for HBV in pregnant women at 1st prenatal visit (USPSTF A)	Standing vaccination orders (CGR)		Vaccination requirements for child care, school, and	
 Increase % women receiving 1st trimester prenatal care 	Screen for sickle cell disease in	Person-to-person interventions to improve		college attendance (CGR)	Child/family incentive
Reduce % low birthweight births Reduce infant mortality	hypothyroidism (USPSTF A) Iron supplementation for children	caregivers' parenting skills (CGR)		Immunization information systems (CGR)	rewards for vaccinations
rate •Increase % 19-35 months who are fully immunized •Increase % children with	6-12months if increased risk (USPSTF B) Screen for iron-deficiency anemia in all pregnant women (USPSTF B)	Reminder and recall systems for vaccinations (CGR)		School-based dental sealant delivery programs (CGR)	
a lead screening by 36 months •Reduce prevalence of tooth decay among 3rd graders •Reduce rate of adolescent pregnancy •Increase % mothers who breastfeed at 6 months Focus on Disparities •Reduce racial/ethnic disparity in rate of teen	Promote and support breastfeeding (USPSTF B)	Support for	Promote	Community-wide campaigns to promote the	
	Repeat Rh testing in unsensitized Rh (-) women at 24-28 weeks (USPSTF B)	breastfeeding counseling (USPSTF B)	awareness of fluoridated water sources	use of folic acid supplements (CGR)	
	Oral fluoride supplementation for children > 6 months whose primary water source is deficient in fluoride (USPSTF B)	Client-held immunization		Interventions to fortify food products with folic acid (CGR)	
	Screen for hearing loss in newborns (USPSTF B)	record		Full day kindergarten (CGR)	
pregnancy (TCNY)	Visual acuity screening in children < 5y (USPSTF B)	Clinic-based vaccine education		Community-wide vaccination education programs	

	Clinician	РСМН	Community Partners	Government	Payors
				Smoking bans and restrictions (CGR)	
Healthy	o althy	Center-based, comprehensive early childhood development	Home-based multi-trigger, multicomponent environment interventions for children and adolescents with asthma (CGR, NYAM)		
Environment			programs for low income children aged 3-5y (CGR)	Streetscape design to encourage walking (MATCH)	
Candidate metrics:			3-3y (CGK)	Engineering and traffic calming measures to reduce speed (MATCH)	
TCNY – Make All Neighborhoods Healthy Places			Develop pedestrian/bicycle	Require vehicle inspection and maintenance as part of vehicle registration programs (MATCH)	
 Reduce % inspected properties with signs of rats 			master plans that work to increase walking and biking trails and improve connectivity of non-auto paths and trails. (MATCH) Encourage zoning that	Retrofit buses to reduce emissions (MATCH)	
NYPA – Healthy				Institute pricing policies to reduce road congestion (MATCH)	Assessments of
Environment •Reduce incidence of				Offer financial and other incentives for energy efficient buildings (MATCH)	Health Risks with Feedback to change employee
elevated lead levels in children and adults in workforce				Promote Energy Star Program energy- efficient consumer products (MATCH)	health at the workplace (CGR)
•Reduce rate of asthma-related			enables physical activity, e.g., high-	Implement or expand Groundwater Stewardship (MATCH)	
hospitalizations •Reduce work-related hospitalization			density mixed use zoning. (MATCH)	Implement or expand the Conservation Reserve Enhancement Program (MATCH)	
Focus on Disparities Reduce housing quality disparity				Implement or expand Conservation Tillage or No-till (zero-till) farming (MATCH)	
low income neighborhoods			Increase access to healthy foods, including promotion of	Bus pass incentive programs or deep discounting (MATCH)	
(TCNY)			local food systems and farmers' markets.	Carpooling and rideshare programs (MATCH)	
			(MATCH)	Mixed-income housing developments	
				Tenant-based rental assistance programs	

	Clinician	РСМН	Community Partners	Government	Payors
				Laws mandating use of child safety seats (CGR)	
				Laws mandating use of seat belts (CGR)	
				Primary (vs. Secondary) seat belt enforcement laws (CGR)	
Unintentional		prevention program for the elderly integrating awareness raising, community education, policy development (with both state and loca governments), home hazard reduction, media campaigns, and working with clinicians (NYAM)		Blood alcohol concentration (BAC) laws (CGR)	
Injuries				Lower BAC laws for young or inexperienced drivers (CGR)	
Candidate metrics: NYPA – Unintentional				Enhanced seat belt law enforcement programs (CGR)	
injuries •Reduce rate of unintentional injury-			Multicomponent fall	Community-wide information and enhanced enforcement campaigns for child safety seats (CGR)	
related hospitalizations •Reduce rate of	d hospitalizations ace rate of		for the elderly	Distribution and education programs for child safety seats (CGR)	
unintentional injury- related mortality •Reduce rate of motor	osteoporosis		awareness raising, community education, policy development (with both state and local governments), home	Incentive and education programs for child safety seats (CGR)	
vehicle-related injury mortality	≥65y or			Sobriety checkpoints (CGR)	
Reduce rate of pedestrian injury	high risk (USPSTF B)			Mass media campaigns against drunk driving (CGR)	
hospitalizations •Reduce rate of fall-			media campaigns,	Multicomponent drunk driving interventions with community mobilization (CGR)	
related hospitalizations in age 65 and older				Maintaining current minimum legal drinking age laws (CGR)	
Focus on Disparities •Reduce child				Ignition interlocks (CGR)	
pedestrian injury rate disparity between high and low income neighborhoods (TCNY)		helmets, facemasks, and mouthguards in		School-based drunk driving educational programs (CGR)	
		contact sports		Drunk driving peer organizing interventions	
				Drunk driving social norming campaigns	
				Designated driver incentive programs	
				Population-based interventions to encourage use of helmets, facemasks, and mouthguards in contact sports	