INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

BOARD ON POPULATION HEALTH AND PUBLIC HEALTH PRACTICE

Roundtable on Population Health Improvement

Achieving Meaningful Population Health Outcomes: A Workshop on Spread and Scale

December 4, 2014

Location: Silberman Auditorium, Hunter College
The Silberman School of Social Work
2180 Third Avenue (at 119th Street) New York, NY 10035

WORKSHOP OBJECTIVES

(1) Explore the different meanings of the spread and scale of programs, policies, practices and ideas.
(2) Learn about a variety of approaches to spread and scale.
(3) Explore how users measure whether their strategies of spread and scale have been effective.
(4) Discuss how to accelerate the focus on spread and scale in population health.

8:00 am	**Welcome, introductions, and context** *George Isham, senior advisor, HealthPartners, senior fellow, HealthPartners Institute for Education and Research; co-chair of the Roundtable on Population Health Improvement* *Debbie Chang, vice president, policy and prevention, Nemours; co-chair workshop planning committee, Roundtable on Population Health Improvement*
8:15 am	**Welcome to Hunter College** Jennifer J. Raab, President
8:20 am	**Keynote: Mapping out the universe of spread and scale** Anita McGahan, associate dean of research, Ph.D. director, professor and Rotman chair in management, Rotman School of Management, University of Toronto
8:50 am	**Discussion**
9:20 am	**Interactive activity: Making sense of spread, scale, and sustainability** Arena Stage Facilitators
10:15 am	**Break**
10:30 am	**Panel I. What do different approaches to spread and scale offer us as we seek to achieve meaningful population health outcomes? How do we evaluate and measure our impact?** *Moderator: Wynne Norton, assistant professor, department of health behavior, school of public health, University of Alabama at Birmingham; member of the workshop planning committee*

	Speaker Rashad Massoud, director, USAID Applying Science to Strengthen and Improve Systems Project; senior vice president of Quality Performance Institute, University Research Co. LLC (URC) *Speaker* Steven Kelder, co-director, Coordinated Approach to Child Health (CATCH), and distinguished professor in spirituality and healing, University of Texas *Speaker* Darshak Sanghavi, director, population and preventive health models group at the Center for Medicare and Medicaid Innovation, Centers for Medicare & Medicaid Services
11:15 am	**Discussion**
11:45 am	**Lunch**
12:45 pm	**Panel II What can we learn from other sectors about effective ways to spread and scale impact to significant portions of the population?** *Moderator: Mary Pittman, president and chief executive officer of the Public Health Institute, member of the workshop planning committee and member of the Roundtable on Population Health Improvement* *Speaker* Linda Kaufman, national movement manager, Community Solutions' 100,000 homes campaign *Speaker* Ogonnaya Dotson-Newman, director of environmental health, WE ACT for Environmental Justice, New York *Speaker* Dan Herman, professor and Associate Dean for Scholarship & Research, Silberman School of Social Work, Hunter College, CUNY
1:30 pm	**Discussion**
2:00 pm	**Panel III. What can we learn from the spread and scale of Tobacco Control? From concept to movement.** *Moderator: Michelle Larkin, assistant vice president, Robert Wood Johnson Foundation, member of the Roundtable on Population Health Improvement* *Speaker* Cheryl Healton, director of the Global Institute of Public Health, dean of global public health and professor of public health at the NYU Wagner Graduate School of Public Service *Speaker* Brian King, senior scientist, Office of Smoking and Health, Centers for Disease Control and Prevention *Speaker* Jeannette Noltenius, director of the National Latino Tobacco Control Network Washington, DC *Speaker* Sally Herndon, director of North Carolina's Tobacco Control Network , and head, Tobacco Prevention and Control Branch, Division of Public Health, North Carolina Dept. of Health and Human Services
3:00 pm	**Discussion**
3:30 pm	**Break**
3:45 pm	**Keynote II: Where do we go from here? How can we accelerate the focus on spread and scale**

	in Population Health? Joe McCannon, The Billions Institute
4:15 pm	**Discussion**
4:45 pm	**Reactions to the day and significance for future action** *Introduction: David Kindig, professor emeritus of population health sciences, emeritus vice chancellor for health sciences, University of Wisconsin-Madison, School of Medicine and Public Health; co-chair, IOM Roundtable on Population Health Improvement.* *Moderator: Jacqueline Martinez Garcel, vice president, New York State Health Foundation; co-chair workshop planning committee, Roundtable on Population Health Improvement.*
5:30 pm	**Adjourn**

For more information about the roundtable, visit www.iom.edu/pophealthrt or email pophealthrt@nas.edu.

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Speaker, Moderator, and Planning Committee Member Biographies[1]

Ogonnaya Dotson-Newman, M.P.H., is the Director of Environmental Health at West Harlem Environmental Action, Inc. Prior to joining the WE ACT team, Ms. Dotson-Newman worked at Loma Linda University's School of Public Health as a Research Associate and Instructor. Born and raised in California to a family of community organizers and environmental activists, she learned at an early age the strong link between health and the environment. Her strong passion for linking social justice and science led to an undergraduate degree in Environmental Science. She holds an M.P.H. with an emphasis on Environmental Health.

Debbie Chang, M.P.H.,[*†] is Vice President of Policy and Prevention at Nemours Foundation where she is leveraging expertise and innovating to spread what works through national policy and practice changes with the goal of impacting the health and well-being of children nationwide. She serves as a Corporate Officer of Nemours, an operating Foundation focused on children's health and health care. Previously at Nemours, Ms. Chang was the founding Executive Director of Nemours Health & Prevention Services, an operating division devoted to improving children's health through a comprehensive multi-sector, place-based model in Delaware (DE). Strategic initiatives include spreading and scaling Nemours' early care and education learning collaborative approach to obesity prevention through an up to $20 million cooperative agreement with the Centers on Disease Control and Prevention (CDC); working with Federal partners on integrating population health and clinical care and providing strategic direction on Nemours' Center for Medicare and Medicaid Innovation (CMMI) Health Care Innovation Challenge award that integrates population health and the medical home for children with asthma in 3 primary care pilot sites in DE; and collaborating with the First Lady's Let's Move! Campaign on Let's Move Child Care, a website that Nemours created and hosts. Ms. Chang has over 26 years of federal and state government and private sector experience in the health field. She has worked on a range of key health programs and issues including Medicaid, State Children's Health Insurance Program (SCHIP), Medicare, Maternal and Child Health, national health care reform, and financing coverage for the uninsured. She has held the following federal and state positions: Deputy Secretary of Health Care Financing at the Maryland Department of Health and Mental Hygiene, with oversight for the State of Maryland's Medicaid program and the Maryland

[1] Notes: Names appear in alphabetical order; "†" = member of the workshop planning committee; "*" = member of the IOM Roundtable on Population Health Improvement.

Children's Health Program; National Director of SCHIP when it was first implemented in 1997; Director of the Office of Legislation and Policy for the Health Care Financing Administration (now Centers for Medicare and Medicaid Services); and Senior Health Policy Advisor to former U.S. Senator Donald W. Riegle, Jr., former chair of the Senate Finance Subcommittee on Health for Families and the Uninsured. She serves on the Institute of Medicine (IOM) Board on Children, Youth and Families and IOM Roundtables on Population Health and Improvement and Obesity Solutions, the Agency for Healthcare Research and Quality (AHRQ) Health Care Innovation Exchange Board, the Winter Park Health Foundation Board and the University of Michigan Griffith Leadership Center Board. She has published work on population health, child health systems transformation, Medicaid, SCHIP, and Nemours' prevention-oriented health system including its CDC Pioneering Innovation award-winning statewide childhood obesity program. Nemours is a founding member of the Partnership for a Healthier America and the National Convergence Partnership, a unique collaboration of leading foundations focused on healthy people and healthy places. Debbie holds a Master's degree in Public Health Policy and Administration from the University of Michigan School of Public Health and a bachelor's degree in Chemical Engineering from the Massachusetts Institute of Technology.

J. David Hawkins, Ph.D. † is the Endowed Professor of Prevention and Founding Director of the Social Development Research Group, School of Social Work, University of Washington, Seattle. He received his B.A. in 1967 from Stanford University and his Ph.D. in Sociology from Northwestern University in 1975. His research focuses on understanding and preventing child and adolescent health and behavior problems. He seeks to identify risk and protective factors for health and behavior problems across multiple domains; to understand how these factors interact in the development of healthy behavior and the prevention of problem behaviors. He develops and tests prevention strategies which seek to reduce risk through the enhancement of strengths and protective factors in families, schools, and communities. He is principal investigator of the Seattle Social Development Project, a longitudinal study of 808 Seattle elementary school students who are now 33 years old. This project began in 1981 to test strategies for promoting successful development. He is also principal investigator of the Community Youth Development Study, a randomized field experiment involving 24 communities across seven states testing the effectiveness of the Communities That Care prevention system developed by Hawkins and Richard F. Catalano. He has authored numerous articles and several books as well as prevention programs for parents and families, including *Guiding Good Choices, Parents Who Care,* and *Supporting School Success*. His prevention work is guided by the social development model, his theory of human behavior. He is a past President of the Society for Prevention Research, has served as a member of the National Institute on Drug Abuse's Epidemiology, Prevention and Services Research Review Committee, the Office for Substance Abuse Prevention's National Advisory Committee, the National Institutes of Health's Study Section for Community Prevention and Control, the Department of Education's Safe, Disciplined, Drug-Free Schools Expert Panel, and the Washington State Governor's Substance Abuse Prevention Committee. He is a member of the Editorial Board of *Prevention Science*. He is listed in *Who's Who in Science and Engineering*, was awarded the 1999 Prevention Science Award from the Society for Prevention Research, 1999 August Vollmer Award from the American Society of Criminology, and the 2003 Paul Tappan Award from the Western Society of Criminology. In 2008, he was awarded the Flynn prize for research. He is a Fellow of the American Society of Criminology

and the Academy of Experimental Criminology. He is committed to translating research into effective practice and policy to improve adolescent health and development.

Cheryl Healton, Dr.P.H., is Director of the NYU Global Institute of Public Health (GIPH), Dean of Global Public Health, and holds an academic appointment as Professor of Public Health at the NYU Wagner Graduate School of Public Service. In her capacity as Director, she is responsible for building the GIPH's academic, service and research programs in collaboration with partners at NYU and throughout the public health community. Prior to this appointment, Dr. Healton joined the staff of Legacy, the foundation created by the Master Settlement Agreement between the States Attorneys General and the tobacco industry as the first President and chief executive officer. In this role she worked to further the foundation's ambitious mission: to build a world where young people reject tobacco and anyone can quit. During her tenure with the foundation, she has guided the highly acclaimed, national youth tobacco prevention counter-marketing campaign, truth®, which has been credited in part with reducing youth smoking prevalence to near record lows. Dr. Healton holds a doctorate from Columbia University's School of Public Health (with distinction) and a master's degree in Public Administration from NYU Wagner in Health Policy and Planning. She is also an active member of the broader public health community, serving on several boards including currently the National Board of Public Health Examiners (treasurer), the Betty Ford Institute, Lung Cancer Alliance, and Phoenix House. Dr. Healton is a thought-provoking public speaker and has given presentations around the world. She is a frequent commentator on national and local broadcasts and print news coverage of tobacco control issues, appearing on ABC's Good Morning America; CNN's Larry King Live; NBC's Today, MSNBC's Hardball with Chris Matthews, National Public Radio and more.

Daniel Herman, Ph.D., is Professor and Associate Dean for Scholarship and Research at the Silberman School of Social Work at Hunter College and a member of the doctoral faculty of the School of Public Health of the City University of New York. Dr. Herman's work focuses primarily on the development, testing and dissemination of community-based interventions for persons with severe mental illness. He directs the Center for the Advancement of Critical Time Intervention (CTI), a time-limited psychosocial intervention designed to prevent recurrent homelessness and other adverse outcomes among persons with mental illness following discharge from institutional care. Listed in SAMHSA'S National Registry of Evidence-Based Programs and Practices, CTI was recently recognized as meeting the Congressional "top-tier" evidence standard devised by the GAO and assessed by the Coalition for Evidence-Based Policy. The model is currently being implemented throughout the US and in Europe, Latin America and Australia. Dr. Herman is a former vice-president and program chair of the Society for Social Work and Research and is a Fellow the American Academy of Social Work and Social Welfare. Before joining the Hunter, he was on the faculty of Columbia's Mailman School of Public Health (epidemiology) and the College of Physicians and Surgeons (psychiatry). He began his research career after a dozen years working as a social worker in New York City's public mental health and homeless services systems. Dr. Herman holds a Ph.D. in social welfare and a master's degree in epidemiology, both from Columbia University.

Sally Herndon, M.P.H., is the Director of North Carolina's Tobacco Control Network, and Head, Tobacco Prevention and Control Branch, Division of Public Health, North Carolina Department of Health and Human Services. She has been a leader in NC's public health efforts

in tobacco prevention and control since 1991. Ms, Herndon helped build support for the 2010 NC law that made all N.C. restaurants and bars smoke free, and she was able to work with state and local partners to successfully implement the new law. Ms. Herndon is the Chair-Elect of the Tobacco Control Network. In her previous role, Ms. Herndon worked in health promotion and disease prevention in Maine from1980 to 1986. She has an M.P.H. from the Department of Health Behavior and Health Education at the University of North Carolina. She was also a Fellow at NC State University's Natural Resources Leadership Institute and the Advocacy Institute Leadership Program.

Linda Kaufman is the National Movement Manager for Community Solutions' Zero: 2016 work. This nationwide initiative has a goal of ending veteran and chronic homelessness by the end of 2016. She is continuing to coordinate recruitment efforts. Ms. Kaufman has worked in homeless services in DC since the mid-1980s, most recently as Chief Operating Officer of Pathways to Housing DC. She was also the Director of Homeless Services at the Downtown Business Improvement District, and served at the Director of Adult Services for the DC Department of Mental Health. In addition to her work to end homelessness in DC, she is also involved in other issues of social justice in the City. Ms. Kaufman received a Masters of Divinity at Virginia Theological Seminary, and she is ordained as an Episcopal priest. She ministers at St. Stephen and the Incarnation Episcopal Church in Washington, DC.

Steven H. Kelder, Ph.D., M.P.H., is the Co-director of the Michael & Susan Dell Center for Healthy Living and the Beth Toby Grossman Distinguished Professor in Spirituality and Healing at the University of Texas, School of Public Health. He has more than 20 years of experience in design and evaluation of child and adolescent research, particularly interventions directed towards youth, schools, and parents. Recently, his emphasis is on interventions designed for promotion of physical activity and healthy eating, obesity prevention, and substance use prevention. Dr. Kelder is one of the lead investigators for CATCH, a research-based program that guides schools, families and children in the process of being healthy, reaching more than a million Texas children. Dr. Kelder served on the Institute of Medicine Committee on Accelerating Progress in Obesity Prevention which published its report in May, 2012 in conjunction with an HBO documentary special "Weight of the Nation" on obesity in America.

Brian King, Ph.D., M.P.H., is a Senior Scientific Advisor in the Office on Smoking and Health (OSH) within the National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control and Prevention (CDC). In this capacity, he is responsible for providing scientific leadership and technical expertise related to multiple aspects of tobacco prevention and control. Dr. King joined the CDC in 2010 as an Epidemic Intelligence Service Officer, before which he worked as a Research Affiliate in the Division of Cancer Prevention and Population Sciences at Roswell Park Cancer Institute in Buffalo, New York. During his time at Roswell Park, his primary research focus related to tobacco prevention and control, particularly the evaluation of secondhand smoke exposure and smoke-free policies in indoor environments. Dr. King has worked for nearly 10 years to provide sound scientific evidence to inform tobacco control policy and to effectively communicate this information to key stakeholders, including decision makers, the media, and the general public. He has authored or co-authored over 50 peer-reviewed scientific articles pertaining to tobacco prevention and control, was a contributing author to the 50th Anniversary Surgeon General's Report on Smoking

and Health, and was the lead author of CDC's 2014 update to the evidence-based state guide, "Best Practices for Comprehensive Tobacco Control Programs. Dr. King holds a PhD and MPH in Epidemiology from the State University of New York at Buffalo.

Michelle Larkin, J.D., M.S., R.N.[*], is Assistant Vice President and Deputy Director for RWJF's Health Group where Ms. Larkin helps to shape the Foundation's strategies and policies. She views her role as one of "contributing to the Foundation's intellectual and organizational development, and managing program operations to ensure that we meet RWJF's goals of reversing the childhood obesity epidemic, driving fundamental improvements in the nation's public health system, and addressing the needs of the country's most vulnerable populations." Ms. Larkin also co-leads the Foundation's major initiative on public health law. In this capacity, she strives to establish effective public health laws, regulations and policies; enhances the public health law infrastructure to support practitioners, advocates and their legal counsel in improving health; and promotes the use of law in fields that impact health. In supporting the Foundation's commitment to tackling some of the nation's toughest health and health care problems through evidence and policy, Ms. Larkin seeks to fulfill the promise she made to herself early in her career: "to create a positive impact on the lives of many and make it easier for people to live healthier lives." Previously, Ms. Larkin directed the Foundation's Public Health team in its work to improve federal, state, and local public health systems, build the evidence for effective public health practice and policy, and advocate for the use of law and policy to improve health. From 2003 through 2006, she co-led the Foundation's Tobacco team, promoting increased tobacco excise taxes, state and local smoke-free air laws, and funding for tobacco prevention and treatment. She has also worked on the Foundation's key areas of nursing, leadership development, and end-of-life care. Before joining the Foundation, Ms. Larkin worked as a health policy analyst at the Office on Smoking and Health at the Centers for Disease Control and Prevention in Washington, D.C., developing and analyzing policy proposals related to state, national and international tobacco prevention and control and contributing to the development of Healthy People 2010. She served as a Presidential Management Fellow, working as a policy analyst at CDC and as a legislative fellow for the U.S. Senate Labor and Human Resources Committee. Previously, she was an oncology nurse at the University of Maryland Medical System in Baltimore, MD.

Jacqueline Martinez Garcel, M.P.H., [*†] is the Vice President of the New York State Health Foundation. She serves as an advisor to the President and CEO and has a central role in developing the Foundation's program areas, identifying emerging opportunities and strategic niches, building partnerships with other foundations, ensuring quality and accountability, and evaluating the performance of programs and grantees. Ms. Martinez Garcel provides leadership and guidance to two priority areas: Improving Health Care for People with Diabetes and Integrating Mental Health and Substance Use Services. She also has a special interest in the strategic and creative development of leadership and capacity-building programs with community-based organizations throughout the State. Ms. Martinez Garcel has more than 10 years of experience in managing and developing community-based health programs for medically underserved communities throughout New York City. She previously served as the program director for the Northern Manhattan Community Voices Collaborative at Columbia University's Center for Community Health Partnerships where she implemented and evaluated health programs. Ms. Martinez Garcel was a research associate for the City University of New

York Medical School where she conducted an analysis of peer-reviewed literature on racial and ethnic disparities in diagnosis and treatment in the U.S. health care system. She was also a program manager for Alianza Dominicana, Inc., a National Institutes of Health fellow for the Department of Public Health in the City of Merida in Yucatan, Mexico, and an assistant coordinator for Beginning with Children, a Brooklyn-based charter school. Ms. Martinez Garcel holds a Master of Public Health degree from Columbia University and a Bachelor of Science degree in Human Development from Cornell University. She has served as adjunct professor of sociology at the Borough of Manhattan Community College, board director of the Institute for Civic Leadership, and board member of the National Alliance on Mental Illness-New York City Metro.

M. Rashad Massoud, M.D., M.P.H., F.A.C.P., is a physician and public health specialist internationally recognized for his leadership in global health care improvement. He is the Director of the USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project. He is Senior Vice President at the Quality and Performance Institute at University Research Co., LLC (URC), where he has led URC's quality improvement efforts in over 40 countries. Dr. Massoud pioneered the application of collaborative improvement methodology in several middle- and low-income countries. He helped develop the WHO strategy for design and scale-up of antiretroviral therapy to meet the 3x5 target; large-scale improvement in the Russian Federation; improving rehabilitation care in Vietnam; developing the Policy and Regulatory Framework for the Agency for Accreditation and Quality Improvement in the Republic of Srpska; and developing plans for the rationalization of health services in Uzbekistan. He founded and for several years led the Palestinian health care quality improvement effort. He was a founding member and Chairman of the Quality Management Program for Health Care Organizations in the Middle East and North Africa, which helped improve health care in five participating Middle East countries. Dr. Massoud chaired the April 2012 Salzburg Seminar: "Making Health Care Better in Low and Middle Income Economies: What are the next steps and how do we get there?" Dr. Massoud speaks English, Arabic, Russian, and French.

Joe McCannon is co-founder and Principal of the Billions Institute, a nonprofit that helps successful local initiatives expand broadly and rapidly. He is also currently a consultant to the Bill and Melinda Gates Foundation. He was the former Senior Advisor to the Administrator at the Centers for Medicare and Medicaid Services (CMS) in the United States Department of Health and Human Services. At CMS, he helped to introduce major pieces of the President's Affordable Care Act legislation, including the Center for Medicare and Medicaid Innovation (CMMI) and several national programs. Before joining CMS, he was Vice President and faculty on large-scale improvement at the Institute for Healthcare Improvement (IHI), where he led the organization's collaboration with the World Health Organization on the 3 by 5 Initiative and directed its major domestic initiatives to improve patient safety, the 100,000 Lives Campaign and the 5 Million Lives Campaign. He has advised or consulted with other large-scale quality improvement efforts in the United States, England, Japan, Canada, and Denmark. He has also been involved with large-scale initiatives outside health care in areas including homelessness and corrections. He is a graduate of Harvard University and was a Reuters and Merck Fellow at Stanford University.

Anita McGahan, Ph.D., MBA, is Associate Dean of Research, Ph.D. Director, Professor and Rotman Chair in Management at the Rotman School of Management at the University of Toronto. She is cross appointed to the Munk School of Global Affairs; is a Senior Associate at the Institute for Strategy and Competitiveness at Harvard University; and is Chief Economist at the Massachusetts General Hospital Division for Global Health and Human Rights. In 2013, she was elected by the Academy of Management's membership to the Board of Governors and into the Presidency rotation. In 2014, she joined the MacArthur Foundation Research Network on Opening Governance. Her credits include two books and over 100 articles, case studies, notes and other published material on competitive advantage, industry evolution, and financial performance. Dr. McGahan's current research emphasizes entrepreneurship in the public interest and innovative collaboration between public and private organizations. She is also pursuing a long-standing interest in the inception of new industries. Her recent work emphasizes innovation in the governance of technology to improve global health. Dr. McGahan has been recognized as a master teacher for her dedication to the success of junior faculty and for her leadership in course development. In 2010, she was awarded the Academy of Management BPS Division's Irwin Distinguished Educator Award and, in 2012, the Academy conferred on McGahan its Career Distinguished Educator Award for her championship of reform in the core curriculum of Business Schools.

Kerry Anne McGeary, Ph.D., M.A., † joined the Robert Wood Johnson Foundation in 2013 as a senior program officer in the Research-Evaluation-Learning unit. Coming to RWJF after a distinguished career as a professor of health economics at Ball State University, Drexel University, and the University of Miami, McGeary praises the Foundation as "an extraordinary opportunity to work on the most important and pressing problems facing our population today." She employs her background in health economics and health policy research to help the Foundation achieve its mission and to assist its researchers in promoting a Culture of Health. McGeary, the Phyllis A. Miller Professor of Health Economics at Ball State University in Indiana, directed Ball State's Global Health Institute, which focuses on various issues related to the function of health care systems and the promotion of health. Prior to her work at Ball State, she was an active faculty member in the Department of Economics and International Business and School of Public Health at Drexel University in Philadelphia, where she received the Academic Leadership Award from the LeBow College of Business in 2003. She also served as an assistant professor at the University of Miami, where she was awarded the 2000 Excellence in Teaching Award. In 2008, she received the Southern Economic Association's Georgesqu-Roegen "Best Paper" Prize for her paper entitled "Will Competitive Bidding Decrease Medicare Prices?" This paper, later used by Congress in Medicare deliberations, examined the use of competitive bidding to set reimbursement prices for durable medical equipment, prosthetics, orthotics, and supplies. McGeary received her BA in Economics from Lehigh University, and her M.A. and Ph.D. in Economics from The Pennsylvania State University. She was a member of the National Bureau of Economic Research, and a Faculty Fellow with the Center for Health Economics Research at Indiana University-Purdue University at Indianapolis. She has written and presented extensively on health care economics, substance abuse, behavioral risk factors, and Medicare.

Kevin Nolan, M.A., † is a Statistician and Consultant at Associates in Process Improvement, and a Senior Fellow at the Institute for Healthcare Improvement (IHI). He has focused on developing

methods and assisting organizations in accelerating their rate of improvement, including the spread of new ideas. He has worked with manufacturing, service, and health care organizations both in the public and private sectors. As an IHI Senior Fellow, Mr. Nolan has served on the faculty for several of IHI's Breakthrough Series Collaboratives, Innovation Communities, and large spread projects. He earned a Master's degree in Measurement and a Master's degree in Statistics from the University of Maryland. He is a co-author of the book The Improvement Guide: A Practical Approach to Improving Organizational Performance, and co-editor of the book Spreading Improvement Across Your Health Care Organization.

Jeannette Noltenius, Ph.D., is currently the National Director of the National Latino Tobacco Control Network (NLTCN). She is recognized nationally as a leader in the field of Latino and minority health; and an expert in tobacco, alcohol and other drug policy issues. An immigrant from El Salvador, she obtained a Master of Arts degree in Counseling Psychology from Antioch College, in Keene, New Hampshire, and then a Masters in Economics and a Doctorate in Social Sciences from the University of Paris 1, Sorbonne, in France. Dr. Noltenius has worked in El Salvador, Guatemala, Honduras, Costa Rica, Colombia, Ecuador, Haiti, Guyana and France. She speaks Spanish and French. Dr. Noltenius is also Vice President of Strategic Solutions Washington, an independent public health and public policy firm based in Washington, DC. She provides technical assistance; training and strategic planning services on health and health care policy issues to clients nationally and internationally. She has worked at the Pan American Health Organization/World Health Organization working on health planning environmental health, violence prevention, and health promotion. She has also worked in community mental health settings utilizing psychodrama with children and families and at a psychiatric hospital addressing substance abuse and mental health issues. Dr. Noltenius is a member of the Board of the North American Quitline Consortium (NAQC) and several other Boards. She is a founding member of the Out of Many, One a multicultural coalition working on a common agenda to achieve equity in health and health care in communities of color.

Wynne E. Norton, Ph.D., [†] is an Assistant Professor in the School of Public Health at the University of Alabama at Birmingham. Her research focuses on advancing the science of implementation of evidence-based practices and programs in health care and public health settings; she has received funding for her work from the NIH, VA, AHRQ, Bill and Melinda Gates Foundation, Commonwealth Fund, and the Donaghue Foundation. Dr. Norton routinely lectures on implementation science and scale-up/spread to a variety of research, practice and policy audiences. In 2010, she co-chaired a conference to advance the science and practice of scale-up and spread in health care and public health in Washington, D.C. Dr. Norton received her Ph.D. in Social Psychology from the University of Connecticut and completed a two-year fellowship in the NIH/VA-funded Implementation Research Institute at the Washington University in St. Louis.

Mary Pittman, Dr.P.H., [*†] is President and Chief Executive Officer of the Public Health Institute (PHI). A nationally recognized leader in improving community health, addressing health inequities among vulnerable people and promoting quality of care, Pittman assumed the reins at PHI in 2008, becoming the organization's second president and CEO since its founding in 1964. Her primary focus has been guiding the development of a strategic plan that builds on existing PHI program strengths to achieve greater impact on public policy and practice in public health. "In a changing environment, strategic planning is an ongoing process, not an end

product," she said. Pittman's overarching goal is for PHI to become known for leadership in creating healthier communities. To this end, PHI continues to work closely with the state on many programs, including the Supplemental Nutrition Assistance Program. What's more, she advocates that all PHI projects take the social determinants of health into account to better address health disparities and inequities. Under Pittman's leadership, PHI has emphasized support for the Affordable Care Act and the Prevention and Public Health Fund, the integration of new technologies and the expansion of global health programming. Other top priorities are: increasing advocacy for public policy and health reform, and addressing health workforce shortages and the impacts of climate change on public health. Under Pittman, PHI has created Dialogue4Health.com, the online platform for conferencing and social networking, and has been recognized as a preferred place to work. She strives for PHI's independent investigators to work together to achieve a synergy in which the sum of their contributions is greater than the whole. Pittman has deep, varied and multi-sectoral experience in local public health, research, education and hospitals. Before joining PHI, Pittman headed the Health Research and Educational Trust, a Chicago-based affiliate of the American Hospital Association, from 1993 to 2007. Previously, she was president and CEO of the California Association of Public Hospitals and a director of the San Francisco Department of Public Health. Pittman has authored numerous peer-reviewed articles in scientific journals and two books. She has served on the PHI board of directors since 1996. Pittman also serves on numerous boards and committees, including the World Health Organization's Health Worker Migration Global Policy Advisory Council and the National Patient Safety Foundation's board of governors.

Jennifer J. Raab is the 13th President of Hunter College, the largest college of the City University of New York. Since assuming the presidency in 2001, she has led a successful effort to enlarge the faculty and recruit distinguished professors and artists. Standards throughout the college have been raised, and fiscal management has been modernized and strengthened. Entering SAT scores increased by 89 points in just seven years and are now 137 points above the national average. Hunter has won new levels of government awards, private grants and philanthropic contributions and launched the first capital campaign in its history. Since her tenure began in 2001, President Raab has been responsible for more than $152 million in philanthropic support to Hunter College. Major changes include the renovation and reopening of the historic Franklin and Eleanor Roosevelt House, which is now the Public Policy Institute at Hunter College, and the construction of a $131 million home in East Harlem for Hunter's renowned School of Social Work that also houses the new CUNY School of Public Health at Hunter College. The reforms and improvements are reflected in Hunter's rising national standing. The Princeton Review has ranked it among the Top 10 "Best Value" public colleges in the nation for three consecutive years. In U.S. News & World Report's college rankings for 2012, Hunter placed 7th among the Top 10 public regional universities in the North, and Hunter has moved up 18 positions in just four years to No. 34 among all regional universities (public and private) in the North. Hunter is one of only seven colleges in the nation to be awarded an 'A' by the American Council of Trustees and Alumni in a study measuring the breadth of undergraduate core requirements. President Raab's role as an educational leader continues her long career in public service, from lawyer to political campaigner adviser to government official. Her career in government began in 1979 when she became special projects manager for the South Bronx Development Organization, an agency that played a critical role in the renewal of one of the city's most distressed areas, and she was later named director of public affairs for the New York City Planning Commission. President Raab went on to become a litigator at two of the nation's

most prestigious law firms - Cravath, Swaine & Moore and Paul, Weiss, Rifkind, Wharton & Garrison. Quickly earning a reputation as a strong but fair advocate, she was appointed Chairman of the New York City Landmarks Preservation Commission, a post she held from 1994 to 2001. She was known for her effective and innovative leadership of the agency that protects and preserves the city's historic structures and architectural heritage. In a 1997 profile, the New York Times's David Dunlap said she had "developed some untraditional ideas about who belongs to the preservation community," adding that the changes - which could have been made "only by an outsider" - had greatly reduced the city's historic battling over preservation. Crain's New York Business named her as one of New York's "100 Most Influential Women in Business" in 2007 and one of the "50 Most Powerful Women in New York" in 2009 and 2011. She has been honored by many New York and national organizations, including the Martina Arroyo Foundation, United Way, the Bella Abzug Leadership Institute and the League of Women Voters of New York. Long active in civic and national affairs, President Raab is a member of the Council on Foreign Relations and serves on the Board of Directors of The After School Corporation and on the Steering Committee of the Association for a Better New York. She was appointed a member of the 2004-05 New York City Charter Revision Commission by Mayor Michael Bloomberg. A graduate of Hunter College High School, President Raab is a Phi Beta Kappa graduate of Cornell University, holds a Master in Public Affairs from the Woodrow Wilson School of Public and International Affairs at Princeton and received her law degree cum laude from Harvard Law School. Harvard has named her to the Law School Visiting Committee, which reports to the University Board of Overseers. President Raab is the 2012 recipient of Albany Law School's Miriam M. Netter Award, which is awarded annually to the School's Kate Stoneman Day keynote speaker, in honor of Stoneman's lifelong commitment to actively seeking change and expanding opportunities for women.

Darshak Sanghavi, M.D., is the Director, Population and Preventive Health Models Group at the Center for Medicare and Medicaid Innovation, where he oversees the development of large pilot programs aimed at improving the nation’s health care costs and quality. Recently, he was the Richard Merkin fellow and a managing director of the Engelberg Center for Health Care Reform at the Brookings Institution, where he directed efforts to better engage clinician in health care payment and delivery reform. Sanghavi is also associate professor of pediatrics and the former chief of pediatric cardiology and at the University of Massachusetts Medical School, where he was charged with clinical and research programs dedicated to children's heart defects. An award-winning medical educator, he also has worked in medical settings around the world and published dozens of scientific papers on topics ranging from the molecular biology of cell death to tuberculosis transmission patterns in Peruvian slums. A frequent guest on NBC's Today and past commentator for NPR's All Things Considered, Dr. Sanghavi is a contributing editor to Parents magazine and Slate's health care columnist, and often writes about health care for the New York Times, Boston Globe, and Washington Post. His best-seller, A Map of the Child: A Pediatrician's Tour of the Body, was named a best health book of the year by the Wall Street Journal. He speaks widely on medical issues at national conferences, advises federal and state health departments, and is a former visiting media fellow of the Kaiser Family Foundation and a winner of the Wharton Business Plan Competition. He previously worked for several years as a U.S. Indian Health Service pediatrician on a Navajo reservation.

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INSTITUTE OF MEDICINE
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Board on Population Health and Public Health Practice

Roundtable on Population Health Improvement
Achieving Meaningful Population Health Outcomes: A Workshop on Spread and Scale
December 4, 2014 8:00-5:30pm

Location: Silberman Auditorium, Hunter College, Silberman School of Social Work
2180 Third Avenue (at 119th Street) New York, NY 10035

Please provide written responses (~2 pages) to the following questions by November 21.
The answers that you provide will be in the meeting agenda books, so you should assume that the roundtable members have read them before your panel takes the stage.

1. Describe what you are spreading (ideas, practices, programs, policies).
2. Please explain what spread and scale means in the context of what you do.
    a. What is the size or scope of the scale-up/spread?
    b. How many organizations (e.g., schools, hospitals, communities, etc.) have adopted the strategies (programs, practices, etc.)?
    c. How many individuals (e.g., clients, patients, students, etc.) have been reached by the scale-up effort?
        i. How do you measure this?
    d. What proportion of your target population have you reached?
        i. How do you measure this?
3. What is your ultimate goal?
    a. What is your timeline for achieving the goal?
    b. How long has it taken you to scale-up the ideas, practices, programs, policies to get where you are now?
    c. What barriers have limited your success in reaching your goals?
4. Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).
    a. What theory/approaches do you use to get people to adopt your (ideas, practices, programs, policies)?
        i. Have you used a particular theory of action or framework of scale or spread?
        ii. What steps did you go through in order to spread a program?
        iii. What investment strategies did you use to spread a program?
        iv. Did you need to make organizational changes to bring something to scale?
        v. Were resources already in place to support the scaling strategy or did you need to find special resources to implement the scaling?
            1. If you needed to find additional resources, how did you do it?

USAID
FROM THE AMERICAN PEOPLE

USAID
ASSIST PROJECT
Applying Science to Strengthen and Improve Systems

The USAID ASSIST Project

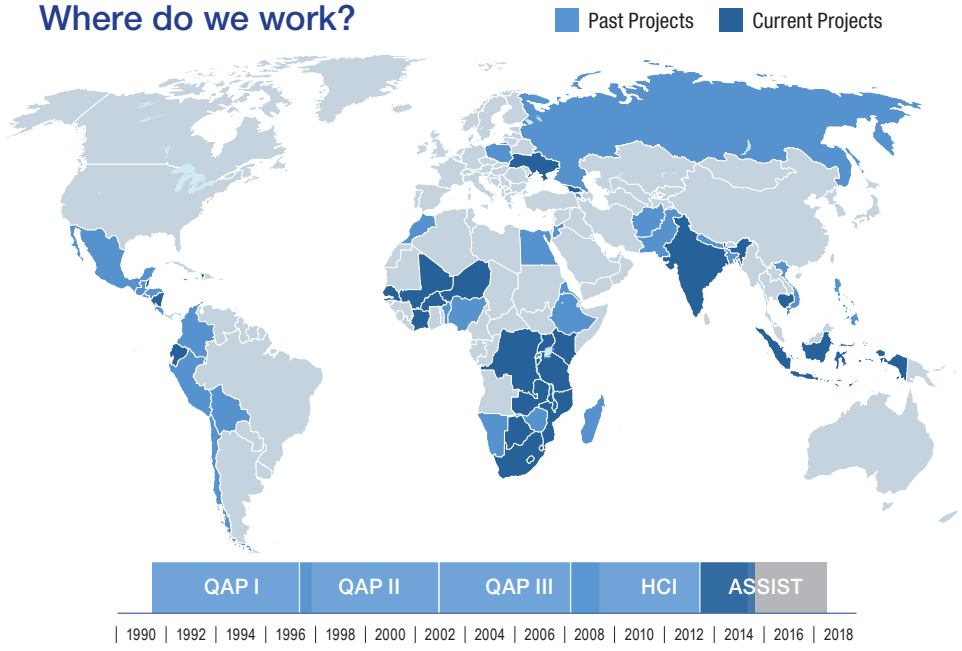
USAID Applying Science to Strengthen and Improve Systems (ASSIST) is a five-year project of the Office of Health Systems of the USAID Global Health Bureau designed to:

- Improve health and social services at scale
- Strengthen host country capacity to improve care
- Learn and share knowledge about improvement globally

Project technical areas

- Care and support for vulnerable children and families
- HIV and AIDS
- Maternal, newborn, and child health
- Non-communicable disease and care for chronic conditions
- Nutrition assessment, counseling and support
- Reproductive health and family planning
- Tuberculosis, malaria, and other infectious diseases
- Health workforce
- Community-based services and linkages with facility-based care
- Knowledge management
- Research and evaluation

Where do we work?



The USAID ASSIST Project is the fifth in a series of preceding contracts that have built on each other: Quality Assurance Projects (QAP): QAP I (16 countries), QAP II (18 countries), QAP III (26 countries), the USAID Health Care Improvement Project (HCI) (39 countries), and USAID ASSIST (to date 28 countries).

At what scale are we working?

Project wide

230+ government and implementing partners

4400+ facilities

900+ communities

2500+ QI teams

96+ million people in areas served

Example: India

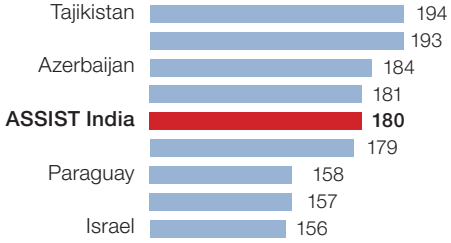
Ministry of Health and Family Welfare

263 facilities

12-14,000 deliveries per month

263 QI teams

30% of deliveries in 27 Districts



*If ASSIST India supported sites were their own country, they would rank **88th out of 180 countries** in the world in total deliveries, just behind Azerbaijan and the Netherlands*

2010 births per country (1000s)

The USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project is funded by the American people through USAID's Bureau for Global Health, Office of Health Systems. The project is managed by University Research Co., LLC (URC) under the terms of Cooperative Agreement Number AID-OAA-A-12-00101. URC's global partners for USAID ASSIST include: EnCompass LLC; FHI 360; Harvard University School of Public Health; HEALTHQUAL International; Institute for Healthcare Improvement; Initiatives Inc.; Johns Hopkins University Center for Communication Programs; WI-HER LLC; and the World Health Organization Service Delivery and Safety Department. For more information on the work of the USAID ASSIST Project, please visit www.usaidassist.org.

What are we improving at what scale?

Scale of USAID ASSIST activities in FY15

Country	Technical Area	Partners	Geographic scale	QI teams	Population coverage
AFRICA					
Botswana		MOH	101 facilities	84	49,047 of 50,048 live births
Burundi		MOH, 6 IPs	70 facilities 24 communities	70	5.6 of 10.6 million
DRC		MOH, 5 IPs	16 facilities	16	16.9 of 72.5 million
Cote d'Ivoire		MOH, 6 IPs	60 facilities	60	6 of 23 million
Kenya		MOH, MLSS&S, NASCOP, 9 IPs	530 facilities 387 communities	800	Health: 33 of 47 counties OVC: 43 of 47 counties (600,000 of 2.4 million vulnerable children)
Lesotho		MOH, 3 IPs	12 facilities 3 of 10 districts	3	417,129 of 1.9 million
Malawi		MOGCSW, MOH, Office of President & Cabinet	12 facilities 72 communities	17	402,664 of 587,214
Mali		MOH, 1 IP	153 facilities 50 communities	203	2.3 of 2.9 million
Mozambique		MMAS, 80 IPs	7 facilities 8 communities	95	1.8 of 11.8 million vulnerable children
Niger		MOPH	16 facilities	16	239,255 of 971,115
Nigeria		MWA&SD, 2 IPs	100 communities 10 of 36 states		200,000 of 2.5 million vulnerable children
South Africa		DOH, 15 IPs	2420 facilities 30 communities	7	2 of 51 million
Swaziland		MOH	85 TB facilities	30	841,752 of 1.1 million
Tanzania		MOHSW, 11 IPs	378 facilities 152 communities	580	19.6 of 45 million
Uganda		MOH, MGLSD, 20 IPs	142 facilities 24 communities	176	2.8 of 36 million
Zambia		MOH, 3 IPs, 2 global partners	8 facilities 1 of 89 districts	8	30,000 of 88,000
EURASIA & ASIA					
Cambodia		All health professions councils: Medical, Nursing, Midwifery, Pharmacists, Dentists	5 councils		20,000+ health workers
Georgia		MOLHSA, 5 IPs	20 facilities	19	1.3 of 4.5 million
India		MOHFW	263 facilities	263	32 million of 1.2 billion
Ukraine		MOH	10 facilities 5 cities	11	2500 of 890,000 women (15-49 yrs)
LATIN AMERICA & CARIBBEAN					
Haiti		MSA, IBESR, 4 IPs	6 facilities 48 communities	5	1.0 of 10.7 million
Nicaragua		UNAN Managua, UNAN Leon, BICU, POLISAL, UPOLI, URACCAN, UCAN, UAM	8 of 13 universities	8	5,157 of 6,192 students

Maternal Newborn and Child Health · HIV · Family Planning · Tuberculosis · Health Workforce · Chronic Care · Nutrition Assessment Counseling and Support · Orphans and Vulnerable Children

USAID Applying Science to Strengthen and Improve Systems
University Research Co., LLC, 7200 Wisconsin Ave., Bethesda, MD 20814-4811 USA
TEL 301-654-8338 • FAX 301-941-8427 • www.usaidassist.org • assist-info@urc-chs.com

Steve Kelder, co-Director, Coordinated Approach to Child Health

Please provide written responses (~2 pages) to the following questions by November 21. The answers that you provide will be in the meeting agenda books, so you should assume that the roundtable members have read them before your panel takes the stage.

1. **Describe what you are spreading (ideas, practices, programs, policies).** Diffusion of strategies for youth Health promotion. This includes preschool, elementary school and middle school aged children and adolescents. Specifically, strategies for healthy eating and physical activity that are supported and managed through the CATCH Global Foundation.

CATCH is composed of 5 main elements: 1) developmentally appropriate classroom instruction for children in grades pre K-8; 2) physical education activities and continuing education; 3) continuing education for child nutrition services; 4) training, outreach and involvement of parents; 5) site based training for program management. See http://catchinfo.org/.

Over time we discovered that after school programs, YMCA, parks and recreation programs were interested in the elements of the CATCH school based program, so we adapted the program and tailored materials and training for those organizations.

2. Please explain what spread and scale means in the context of what you do.

a. **What is the size or scope of the scale-up/spread?** In Texas, 50% of public elementary and middle schools report using all or part of the CATCH program, approximately 1.6 million children). We have trained schools, preschools, YMCAs, Jewish Community Centers, Boys and Girls Clubs in all 50 states, and several other countries.

b. **How many organizations (e.g., schools, hospitals, communities, etc.) have adopted the strategies (programs, practices, etc.)?** This is a problem we intend to solve within the coming year. We didn't start out to train every school and YMCA in the United States in CATCH; our main target was Texas schools. As our Texas initiative grew, requests for training came from other states and we did our best to keep up with demand. We didn't keep track as we should have. With that said, we conservatively estimate having trained over 10,000 schools, preschools, and YMCAs.

c**. How many individuals (e.g., clients, patients, students, etc.) have been reached by the scale-up effort?** This also is a difficult question. Schools are easier to enumerate, because there is a known population of students with small variation within any given school year. However, even adopting schools have varying levels of implementation which is very difficult to track on a large scale.

i. **How do you measure this?** In Texas we have a better estimate of school size from our training logs: we estimate annually reaching approximately 1.6 million. In other states, the numbers are not well identified and I shouldn't hazard a guess. What I can say is we have trained schools in all 50 states; in urban, suburban, and rural environments.

d. **What proportion of your target population have you reached?** In Texas, approximately 50%. Nationally, the number is smaller and I shouldn't guess. A crude guess is 10%.

i. **How do you measure this?** The Texas Education Agency annually conducts a survey of school district wellness councils and CATCH is consistently reported to be used in ~ 50% of schools.

3. **What is your ultimate goal?** I've been working on CATCH since 1992, as a professor interested in development and evaluation child health promotion programs. As a professor, the dissemination of CATCH is one of many professional obligations, and has not been my full time job, and funding is inconsistent year-to-year. To solve some of the problems described above, in 2014 several CATCH investigators started the CATCH Global Foundation, a 501(c)3 public charity founded. The mission is to improve children's health worldwide by developing, disseminating and sustaining the CATCH platform in collaboration with researchers at UTHealth. The Foundation links underserved schools and communities to the resources necessary to create and sustain healthy change for future generations.

a. **What is your timeline for achieving the goal?** Our first timeline is to establish the CATCH Global Foundation – we plan on completing initial fundraising and staffing in 2015. As the foundation grows, we anticipate reaching a greater number of underserved schools and families. At this point, I can't predict how far and fast we will grow, but we have had high level conversations with many national and international organizations. I'm very optimistic.

b. **How long has it taken you to scale-up the ideas, practices, programs, policies to get where you are now?** CATCH has been a labor of love for me since graduate school in the late 80's. Throughout my career, I have continued to research and build CATCH starting from an incredible foundation developed by the best child and adolescent researchers in the country. Cheryl Perry, Guy Parcel, Jim Sallis, Johanna Dwyer, Thom KcKenzie, and John Elder, to name a few. My colleague Deanna Hoelscher and I have been at this for a long time.

c. **What barriers have limited your success in reaching your goals?** There are three main barriers: 1) reductions in overall school funding nationwide; 2) health objectives are a lower priority relative to educational objectives; and 3) a low profit margin on delivery of quality training and materials.

4. **Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).** In the late 1990's, after the main CATCH RCT's, we received funding from the Texas Department of Health to disseminate CATCH in Texas. The University also licensed Flaghouse, Inc to produce, market and distribute CATCH. Prior to Flaghouse joining our team, we kept CATCH materials in a storage locker in Austin – not the most efficient operation!

Our main approach is twofold: 1) we respond to training and implantation requests; and 2) we seek funding from public sources and private philanthropy. Flaghouse markets and warehouses the CATCH program materials and University of Texas faculty maintains quality control over training. The CATCH Global Foundation is now licensed to conduct CATCH trainings and will soon take over maintenance of training and program quality control.

a. **What theory/approaches do you use to get people to adopt your (ideas, practices, programs, policies)?**

i. **Have you used a particular theory of action or framework of scale or spread?** We adhere to Diffusion of Innovation

ii. **What steps did you go through in order to spread a program?** The typical diffusion cycle: increase awareness of the program, locate program champions and innovators, tailor program to local conditions (with reason), train users to implement program, provide technical support, encourage institutionalization of program.

iii. **What investment strategies did you use to spread a program?** Most schools and districts have very small health education and physical education budgets, especially in underprivileged schools. We strive to offset school monetary costs with public and private funding. We also have gained UT institutional commitment for allowing faculty to work on CATCH as a professional service. A percentage of faculty salary for program development, evaluation, and dissemination is born by UT.

iv. **Did you need to make organizational changes to bring something to scale?** Numerous. From production and storage of materials (Flaghouse) to the development of the CATCH Global Foundation.

v. **Were resources already in place to support the scaling strategy or did you need to find special resources to implement the scaling?** The University of Texas has been very supportive, but could not supply all the resources needed to scale and reach full potential. We needed outside funding and a commercial partner.

1. **If you needed to find additional resources, how did you do it?** Mostly by writing grants and attracting philanthropy dollars.

Response by Darshak Sanghavi, director, Population and Preventive Health Models Group at CMMI

The Center for Medicare and Medicaid Innovation: Background

The Innovation Center was established by section 1115A of the Social Security Act (as added by section 3021 of the Affordable Care Act). Congress created the Innovation Center for the purpose of testing "innovative payment and service delivery models to reduce program expenditures …while preserving or enhancing the quality of care" for those individuals who receive Medicare, Medicaid, or Children's Health Insurance Program (CHIP) benefits.

Congress provided the Secretary of Health and Human Services (HHS) with the authority to expand the scope and duration of a model being tested through rulemaking, including the option of testing on a nationwide basis. In order for the Secretary to exercise this authority, a model must either reduce spending without reducing the quality of care, or improve the quality of care without increasing spending, and must not deny or limit the coverage or provision of any benefits. These determinations are made based on evaluations performed by the Centers for Medicare & Medicaid Services (CMS) and the certification of CMS's Chief Actuary with respect to spending.

Established in 2010 and comprised of roughly 300 staff, the Center is funded by a $10 billion appropriation over 10 years. Broadly, the Center is currently testing models related to Accountable Care Organizations (the Pioneer ACO program), comprehensive primary care (CPCI), bundled payments for care improvement, state-based innovation models focused on Medicaid, numerous health care innovation awards, and broad based system transformation (for example, the Partnership for Patients).

Spread and Scale of the Innovation

Annual federal spending by Medicare and Medicaid is approximately $772 billion, and the programs consume 22% of the federal budget, covering about 54 million Americans with Medicare and 70 million people via Medicaid. As a result, federal policy in these programs has the potential to drive significant impact through their scale. As of 2013, over 50,000 providers were engaged by CMMI models, which served over 1 million Medicare and Medicaid beneficiaries. Typical models can range from 3 to 5 years in duration, though there are several examples of Medicare demonstration projects which have continued for extended periods of time.

The spread and scale is typically supported by evaluation, learn/diffusion strategies, and public accountability for results of pilot programs, which are released publicly.

Current Model Authorized by the Affordable Care Act (taken from most recent Report to Congress in end of 2012)

This table summarizes the current model tests authorized by Section 1115A of the Affordable Care Act:

Initiative Name	Description	Statutory Authority
Advance Payment ACO Model	Prepayment of expected shared savings to support ACO infrastructure and care coordination	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Bundled Payment for Care Improvement	Evaluate 4 different models of bundled payments for a defined episode of care to incentivize care redesign Model 1: Retrospective Acute Care Hospital Inpatient Stay Model 2: Retrospective Acute Care Hospital Inpatient Stay & Post-Acute Care Model 3: Retrospective Post-Acute Care Model 4: Prospective Acute Care	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)

	Hospital Inpatient Stay	
Comprehensive Primary Care Initiative	Public-private partnership to enhance primary care services, including 24-hour access, creation of care management plans, and care coordination	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Federally Qualified Health Center Advanced Primary Care Practice-Demonstration	Care coordination payments to FQHCs in support of team-led care, improved access, and enhanced primary care services	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Financial Alignment Initiative	Opportunity for states to implement new integrated care and payment systems to better coordinate care for Medicare-Medicaid enrollees	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Innovation Advisors	This initiative is not a payment and service delivery model for purposes of section 1115A, but rather is an initiative that is part of the infrastructure of the Innovation Center to engage individuals to test and support models of payment and care delivery to improve quality and reduce cost through continuous improvement processes	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Health Care Innovation Awards	A broad appeal for innovations with a focus on developing the health care workforce for new care models	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Initiative to Reduce Preventable Hospitalization Among Nursing Facility Residents	Initiative to improve quality of care and reduce avoidable hospitalizations among long-stay nursing facility residents by partnering with independent organizations with nursing facilities to test enhanced on-site services and supports to reduce inpatient hospitalizations	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Million Hearts	This initiative is not a payment and service delivery model for purposes of section 1115A, but rather is an initiative that is part of the infrastructure of the Innovation Center. Million Hearts is a national initiative to prevent 1 million heart attacks and strokes over five years; brings together communities, health systems, nonprofit organizations, federal agencies, and private-sector partners from across the country to fight heart disease and stroke.	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Partnership for Patients	Hospital engagement networks (and other interventions) in reducing HACs/Readmissions by 20 and 40 percent, respectively. (Community Based Care Transition is covered in another row.)	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Pioneer ACO Model	Experienced provider organizations taking on financial risk for improving quality and lowering costs for all of their Medicare patients	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
State Demonstrations to Integrate Care for Medicare-Medicaid Enrollees	Support States in designing integrated care programs for Medicare-Medicaid enrollees.	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
State Innovation Models	Provides financial, technical, and other support to states that are either	Section 1115A of the Social Security Act (section 3021 of the Affordable

	prepared to test, or are committed to designing and testing new payment and service delivery models that have the potential to reduce health care costs in Medicare, Medicaid, and CHIP	Care Act)
Strong Start for Mothers and Newborns	Strategy I: Testing the effectiveness of shared learning and diffusion activities to reduce the rate of early elective deliveries among pregnant women. Strategy II: Testing and evaluating a new model of enhanced prenatal care to reduce preterm births (less than 37 weeks) in women covered by Medicaid.	Section 1115A of the Social Security Act (section 3021 of the Affordable Care Act)
Accelerated Learning Development Sessions	A series of collaborative learning sessions with stakeholders across the country to inform the design of the Accountable Care Organization (ACO) initiatives	Section 1115A of the Social Security Act (section 3021 of t

COMMUNITY SOLUTIONS

100,000 Homes Campaign and Zero: 2016

Community Solutions is working on a real-time, data-driven approach to ending homelessness, and are especially focused on those individuals who have the highest acuity and have been homeless the longest. We view homelessness in America as a public health emergency -- the mortality rate for street homelessness is on par with some forms of cancer, cutting a person's lifespan by an average of 25 years.

By using learnings from the **Collective Impact** and **Lean Startup** models, Community Solutions has quickly spread the work of ending chronic homelessness across the United States by scaling up best practices and embracing targeted, data-driven solutions.

We began with a **prototype** called Housing First -- providing people experiencing homelessness with housing as quickly as possible and without preconditions, and then providing services to these people as needed. Although developed over 20 years ago, the Housing First model had not spread far beyond Pathways to Housing, Inc., the developer of the concept. This simple concept has revolutionized the work of ending homelessness.

We then **piloted** a method of organizing a housing services within a community, using the Housing First model to prioritize people based on vulnerability and moving those with the highest acuity into housing as quickly as possible. This pilot started in Times Square and quickly spread to 5 other vanguard communities across the country (DC, Charlotte, Denver, Albuquerque and Skid Row in Los Angeles). This pilot phase allowed us to develop the right tools and process to house chronically homeless individuals and was pushed forward by the success of these communities.

In July 2010, the national 100,000 Homes Campaign was launched with the help and support of the Institute of Healthcare Improvement. Joe McCannon (also a speaker at this forum) was our consultant, guru and facilitator of many meetings. By learning from IHI's 100,000 Lives Campaign, we set our sights on an audacious goal -- to permanently house 100,000 of our most vulnerable and chronically homeless neighbors and transform the way our communities respond to homelessness. The launch of the campaign allowed us to intentionally target the communities with over 1,000 chronically (long-term) homeless individuals.

The **spread** of this work began in 2010, as we spread the idea to more than 180 communities which went on to house over 105,000 chronically homeless individuals by July 2014. We made significant changes over the four years of the campaign, adopting new techniques and scaling

up best practices, and we have seen significant returns on our investments -- an independent researcher estimates that each year the system saves $1.3 billion by moving these 100,000 people from the streets to permanent housing.

By the latter part of the Campaign, the spread of these ideas and systematic changes began to reach the **scale** we had hoped to see. By employing a boot camp model (six to ten communities gathered in one place for large-scale change), we were able to go far beyond our previous single community methodology. The boot camps were first used to introduce communities to prioritization and Housing First, and subsequently used to dramatically increase housing placements and system redesign.

Following the successful completion of the 100,000 Homes Campaign, Community Solutions launched a new initiative -- Zero: 2016. This rigorous and challenging follow-on to the 100,000 Homes Campaign includes a cohort of 71 communities (including four states), which have committed to ending veteran homelessness by the end of 2015; and ending chronic/long-term homelessness by the end of 2016.

We have moved from working with one community at a time to multiple communities simultaneously. We have moved from simply asking communities to know each person by name to using *triage* rather than chronology to determine their next housing placement. We have moved from "set your own goal and see if you can meet that goal" to objective goals -- 2.5% of a community's chronically homeless population should be housed each month. And now communities have committed to doing the impossible: take veteran homelessness to functional zero by December 31, 2015 and chronic homelessness to functional zero by December 31, 2016.

Disrupting the failed status quo of "managing" homelessness rather than ENDING homelessness requires systemic change. That's why we required that all communities applying to be part of Zero: 2016 obtain buy-in from key stakeholders and have a signed memorandum of action in place. Communities had to publicly commit to the goals of Zero: 2016, as well as a number of community action aimed at helping reach these goals.

The success of Zero: 2016 is based on the learnings from the prototype and pilot phase, but not confined to them. The success of this initiative is based on a constantly iterating process: data from communities is used to plan and drive subsequent steps and best practices are identified and adopted. For example, in the 100,000 Homes Campaign, communities were lauded and celebrated for meeting their goals and reporting their monthly housing placements -- it had never before been viewed as a useful exercise. Now, Zero: 2016 communities recognize that meeting goals and reporting are required not only to participate in the initiative, but also necessary to reach zero within their community.

Before the beginning of the 100,000 Homes Campaign and Opening Doors (the federal campaign to end homelessness), we had seen very little success in the reduction of homelessness. Since the federal campaign, supported by 100,000 Homes, we have seen a 33% reduction in the number of homeless veterans and a 20% reduction in chronic homelessness. This reduction has been a direct result of a national turn toward the use of evidence-based practices, a reliance on what the data shows us, and the amazing federal-private collaborations which have been established along the way. By working with the Department of Housing and Urban Development (HUD), the United States Interagency Council on Homelessness (USICH), and the Department of Veterans Affairs, we have developed strategic partnerships which have supported our work and impelled us toward meeting the goals of ending veteran and chronic homelessness.''

Linda M Kaufman, National Movement Manager

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Answers to the IOM Questions
By Ogonnaya Dotson Newman, Director of Environmental Health, WE ACT for Environmental Justice

1. **Describe what you are spreading (ideas, practices, programs, policies).** *For this example, I will discuss the spread of ideas, programs and policies directly related to the work of WE ACT for Environmental Justice. WE ACT is the community health watchdog of Northern Manhattan. Based in West Harlem for over 25 years, WE ACT's work bridging research, community organizing and policy has continued to serve as a valuable model for community improvement and change. The two examples of this work that we will use are the spread of ideas and policies. As an environmental justice organization, WE ACT has worked alongside organizations that do environmental justice work at the national scale. This includes coalition development among organizations, organizing community residents in Northern Manhattan, leveraging relationships through community-academic partnerships and even engaging local elected officials to create opportunities to improve community health and planning processes. A couple of examples of this include but are not limited to: engagement of local residents in the climate march, engagement of local business owners and residents around garbage, pests and pesticide issues, negotiation and discussion with the Metropolitan Transportation Authority and leveraging community organizations, residents and businesses to close an environmentally hazardous facility.*
2. **Please explain what spread and scale means in the context of what you do?**
    a. **What is the size or scope of the spread/scale up?** *WE ACT's work in relation to size and scale up is at local community level in most cases. Although the frame is localized, many of the implications of this work can be seen at the city, regional or even national level depending on partners. For example, the implications of the lawsuit filed by WE ACT with the support of Earth Justice related to bittering agents in rodenticides has a national scale. While the work with to sue and engage the Metropolitan Transportation Authority over 10 years ago in regard to their issues related to Title VI of the Civil Rights act has more localized implications for community residents in New York City.*
    b. **How many organizations (e.g. schools, hospitals, communities, etc.) have adopted the strategies (programs, practices, etc.).** *Many of the examples that were given have been created, adopted and modified on a community-by-community basis by Environmental Justice organizations. For example, the National Institute of Environmental Health Sciences (NIEHS) had a number of programs in the late 1990 and early 2000's that provided a framework for academic institutions working with community based organizations. The funding and capacity building initiatives lead to techniques to improve citizen science and a framework for using science as an organizing tool. Many of these ideas for this framework were tested locally with hundreds of organizations. The wins that you see in cities across the country and even the world are based on programs, policies and practices developed individually and in collaboration. Some of these examples even build historically on work done and catalogued by movement historians.*
    c. **How many individuals have been reached by the scale up?** *In some cases hundreds of thousands of individuals have been reached. For example much of the work around community-academic partnerships has allowed WE ACT to reach*

thousands of residents in Northern Manhattan alone. When you multiply this number by the Environmental Justice organizations across the country and world the number grows exponentially.

   d. **What proportion of your target population have you reached?** *By our estimation we have reached a small sliver of individuals through a variety of methods. Given that Northern Manhattan has over 550,000 residents based on the last census and WE ACT has a database of a little fewer than 10,000 residents that comes to about 1 % of the population of Northern Manhattan.*

3. **What is your ultimate goal?** *WE ACT's goal is to improve community health in Northern Manhattan.*
   a. **What is your timeline for achieving that goal?** *There is no timeline for this goal. Given our work often takes a number of years to see measurable change, for example the Harlem Piers Park took over 15 years to come to fruition, we envision a healthy, just and sustainable future for all New Yorkers and that will take decades to achieve.*
   b. **How long has it taken to scale up the ideas, practices, programs, and policies to get where you are now?** *For the examples, I used there were a variety of timelines to get the policies and ideas scaled up. The Executive Order on Environmental Justice took over 20 years and then took an additional 10 years for the right leaders to be in office at the federal level. The work related to the adoption of policies and practices by the Metropolitan Transportation Authority took over 15 years. The coalition work and individual organizing around climate justice and climate change issues has taken over 7 years just in terms of engagement of residents in Northern Manhattan, although the broader coalition and idea spread has been going on for even longer.*
   c. **What barriers have limited your success in reaching your goals**? *Coalition building, changing public opinion and engaging people around issues of social justice are difficult. Power dynamics and social structures that impact institutional racism are all part of the barriers to spreading this work. Identifying key ways to creatively use funding to support community organizing is a continuing barrier. We work hard within our organization and with strategic partners to manage competing interest of the community we serve and ensuring that we are remaining authentic in how we accomplish our goals.*
4. **Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).** *WE ACT uses a variety of ways to disseminate information based on the campaign, initiative or program. This can relate directly to social marketing, civil disobedience, social media or just community organizing.*
   a. **What theory/approaches do you use to get people to adopt your (ideas, practices, programs, policies)?** *WE ACT uses a variety of models to do our work. We use direct organizing when it is needed, a community change model and at times also use theories that based in popular education.*
      i. **Have you used a particular theory of action or framework of scale to spread?** *No, WE ACT did not use a particular theory of action or framework of scale to spread.*
      ii. **What steps did you go to in order to spread a program?** *WE ACT worked with partners in academic institutions and sometimes government agencies to spread a model. We also worked directly with community-based organizations and individuals through leadership development, mentorship and internship*

opportunities, which are always helpful in informing the next generation of social movement leaders in models or ways to get the work done.

iii. **What investment strategies did you use to spread a program?** *WE ACT continues to invest in local community leaders and individuals in order to have spokespeople and champions for our work.*

iv. **Did you need to make organizational changes to bring something to scale?** *No, we did not make organizational changes.*

v. **Were resources already in place to support the scaling strategy or did you need to find special resources to implement the scaling?** *Some resources were in place but much of the work was funded through special funds that were used to increase organizational capacity.*

Dan Herman, Silberman School of Social Work, Hunter College

1. **Describe what you are spreading (ideas, practices, programs, policies).**

   Critical Time Intervention is (CTI) is an individual-level time-limited care coordination model mobilizes support for vulnerable persons during periods of transition. It facilitates community integration and continuity of care by ensuring that a person has enduring ties to their community and support systems during these critical periods. CTI has been applied with veterans, people with mental illness, people who have been homeless or in prison, and many other groups. The model was recently evaluated as meeting the Coalition for Evidence-based Policy's rigorous "Top Tier" standard for interventions "shown in well-designed and implemented randomized controlled trials, preferably conducted in typical community settings, to produce sizable, sustained benefits to participants and/or society."

2. **Please explain what spread and scale means in the context of what you do.**
   We engage in active efforts to disseminate CTI directly to provider organizations (social service agencies, health and mental health providers, housing and homelessness service providers, etc.) and to government agencies that fund and oversee delivery of services to vulnerable populations.

   a. **How many organizations (e.g., schools, hospitals, communities, etc.) have adopted the strategies (programs, practices, etc.)?**

      We estimate that personnel from over 200 organizations have been trained but we lack reliable information on adoption.

   b. **How many individuals (e.g., clients, patients, students, etc.) have been reached by the scale-up effort**

      Unknown. We estimate between 3,000 and 10,000 persons. We currently have no way to measure this.

   c. What proportion of your target population have you reached?
      Unknown.

   d. **How do you measure this?**
      We have no way to measure this right now. It is possible that in future work within specific service delivery systems (i.e. funding auspices, geographical entity) we may be able identify targets for spread and assess how far along we are toward attaining these targets.

3. **What is your ultimate goal?**
   Goal right now is to continue broad dissemination in multiple systems. No numerical goal has been identified.

   a. **What is your timeline for achieving the goal?**

      No timeline has been established

   b. **How long has it taken you to scale-up the ideas, practices, programs, policies to get where you are now?**

      Original demonstration research project (funded by NIH) began in 1991 and ended in 1996 with results published in 1997. Further research and dissemination has been continuing since that time.

c. **What barriers have limited your success in reaching your goals?**

--Lack of single funding mechanism that can support model implementation across service delivery sectors and in variety of local communities

--Difficulty in getting the word out to potential funders and adopters

--Lack of funding support for dissemination, training and implementation support activities

4. **Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).**

--As researchers, we relied originally on publishing in academic journals and presenting at professional conferences. Over the past several years, we have developed partnerships with training organizations whose primary mission is to train social service and healthcare providers in evidence-based practices. Most recently, we have launched a Center for the Advancement of Critical Time Intervention (CACTI) in partnership with our organizational collaborators. The purpose of CACTI is to support the broad dissemination of CTI and to ensure quality and fidelity in its implementation. The Center sponsors the CTI Global Network, to promote collaboration among CTI practitioners, trainers, and researchers on promising adaptations and enhancements to the model.

a. **What theory/approaches do you use to get people to adopt your (ideas, practices, programs, policies)? Have you used a particular theory of action or framework of scale or spread?**

We have not employed a particular theory to promote spread. Our activities have been largely *ad hoc* up until this point. However, our we have been informed by general principles of implementation science that are consistent with the work of Fixsen and others who have emphasized the need for careful consideration drivers and barriers to effective implementation. We have also been influenced by the literature on diffusion of innovation.

b. **What steps did you go through in order to spread a program?**

As noted above, we initially focused on diffusing information about the model via traditional professional literature channels. More recently we have supplemented this by partnering with for-profit and not-for-profit organizations whose business models rely on selling training and implementation support for a variety of evidence-based practices including CTI. Our launch of a center dedicated to promoting effective dissemination of the model is the next step in this process.

c. What investment strategies did you use to spread a program?

d. Did you need to make organizational changes to bring something to scale?

As described above, we have launched a center dedicated to dissemination and support for the model.

e. **Were resources already in place to support the scaling strategy or did you need to find special resources to implement the scaling?**

Resources were not in place. We are currently attempting to identify resources to support continued dissemination. Options we are exploring include seeking public and private funding as well as obtaining revenue from trainers and providers via certification or accreditation approaches. We expect this to be a significant challenge.

Cheryl Healton, Dean, NYU, Global Institute of Public Health
Roundtable on Population Health Improvement
Achieving Meaningful Population Health Outcomes: A Workshop on Spread and Scale
December 4, 2014 8:00-5:30pm

1. **Describe what you are spreading (ideas, practices, programs, policies).**

Two principal forms of public education were undertaken by Legacy, the Truth Campaign and BecomeanEX in partnership with other foundation funders and the states. The Truth Campaign is focused on the primary prevention of smoking while BecomeanEX is focused on motivating people to quit and giving them tools to do so. The Truth Campaign aims to empower teens to make an informed choice about starting to smoke through understanding the behavior of the tobacco industry toward teens (e.g. the truth about its marketing practices). The EX Campaign, no longer airing, was focused on raising national awareness among smokers about their own efficacy with respect to quitting and sought to motivate quit attempts via the BecomeanEX website (still operating) and through other means.

2. **Please explain what spread and scale means in the context of what you do.**

National public education to prevent tobacco use is now undertaken by 3 main entities: Truth which is back on the air at a fairly high paid media buy level; the FDA youth smoking prevention campaign; and the CDC "Tips from Smokers" campaign which while mainly focused on smokers reaches youth too. The scale of these campaigns is considerable in that they reach virtually the entire TV viewing public in their target groups at high frequency. For most media campaigns, social media plays a key and increasing role. Breaking through the "clutter" remains a challenge for all campaigns, especially those not focused on a product but rather on complex behavior change of some sort.

a. **What is the size or scope of the scale-up/spread?**

For Truth and EX, over 75 percent of the entire national population target (teens and smokers) were reached. Both campaigns also have web and other social media activity which includes opportunities to share content with other teens and other smokers (for EX).

b. **How many organizations (e.g., schools, hospitals, communities, etc.) have adopted the strategies (programs, practices, etc.)?**

These campaigns were national in scope but a number of states have subsidized the EX campaign and many have used EX ads locally. The campaigns have not been replicated outside the US.

How many individuals (e.g., clients, patients, students, etc.) have been reached by the scale-up effort?

For truth about 75% percent of teens could describe at least one ad during 2000-2004, about 50 percent 2004-2007, and less thereafter as campaign relied more on social media and had less to spend on the national media buy. The new Truth Campaign, "Finish It", is currently being assessed with regard to reach and impact.

How do you measure this?

The truth campaigns' reach and frequency was measured by multiple waves of national sampling to determine what percent of teens viewed the campaign and on average how many exposures they had. The Campaign was also assessed on receptivity; "talking to friends about", and on impact on smoking rates. A similar approach was used for EX to estimate its reach, which was about 75 percent of smokers.

d. **What proportion of your target population have you reached?**

The vast majority for truth, 75 percent could describe specific ads; 75 percent for EX (had a shorter duration media buy, two 6-month intensive periods).
Both campaigns had significant impact. Truth was responsible for at least 22 percent of the decline in smoking from 2000-2004 resulting in an estimated 450 thousand youth not starting. EX was associated with a 24 percent greater likelihood of a quit attempt among those who recalled the campaign.

3. **What is your ultimate goal?**

Reducing smoking initiation and helping people quit.

What is your timeline for achieving the goal?

a. Ongoing-National Healthy People goals would be nice to reach but adult goal still out of reach despite the many related efforts ongoing such as price increases, clear air laws etc.

b. How long has it taken you to scale-up the ideas, practices, programs, policies to get where you are now?

It has taken decades for funded national tobacco use related public education to be undertaken. The period from 1968-1971 was the first time that any national public tobacco education aired on TV. This campaign was achieved via donated air time required by the Fairness Doctrine. Truth was the next national campaign (2000 to present). The CDC Tips campaign was the first federally funded public education campaign. A number of states have run campaigns-most consistently California.

c. **What barriers have limited your success in reaching your goals?**

The Master Settlement Agreement allowed for state settlement funds to go to Legacy for only 10 years. The Foundation can fund Truth only by using reserve funds which could be depleted if the campaign is funded at high levels for a sustained period. The tobacco industry sues to disrupt public

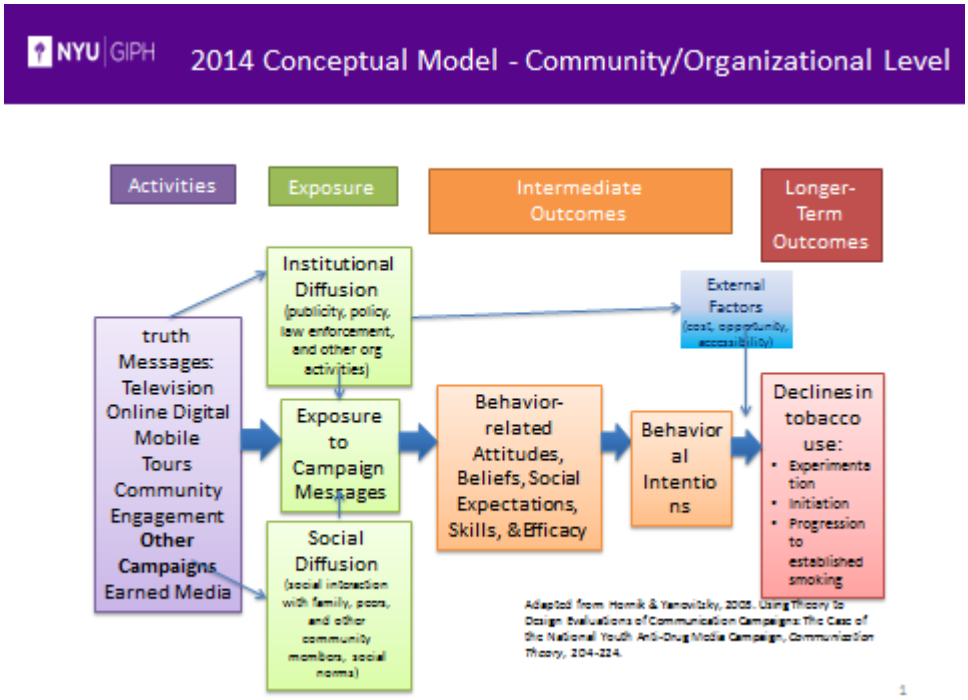
education and works against tobacco control in a variety of ways.
Tobacco industry seeks to obstruct blunt public education.

4. Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).

Encouraging states to adopt, encouraging media networks to subsidize, as they do anti-drug messages, encouraging other public education efforts and collaborating with them.

What theory/approaches do you use to get people to adopt your (ideas, practices, programs, policies)?

The main theory underlying the truth campaign is focused on youth "need states" associated with maturation. Young people seek to reject old ideas and adopt new ones for themselves. Truth used a "branded" approach "their brand is lies, our brand is truth" in order to capitalize on the natural rebelliousness of teens, especially risk-taking teens open to smoking. Research has shown that "sensation-seeking" teens are more open to multiple risky behaviors including smoking, for this reason the campaign was designed for this group.
EX relies mainly of Theory of Reasoned Action and efficacy theories of health behavior change.



i. Have you used a particular theory of action or framework of scale or spread?
(see above)

ii. What steps did you go through in order to spread a program?

The program was spread using paid mass media and social media as well as "earned" media (free coverage).

iii. What investment strategies did you use to spread a program?

Invested in legal fees to fight tobacco industry effort to shut down campaign. Invested in efforts to encourage others to co-fund campaigns and develop others at state, local and national level.

iv. Did you need to make organizational changes to bring something to scale?

Yes-can only happen with more money from government or private sources.

v. Were resources already in place to support the scaling strategy or did you need to find special resources to implement the scaling?

Yes but not sufficient over time.

5. If you needed to find additional resources, how did you do it?

Raised funds from federal and state government to extend truth to rural under-reached areas and to co-fund EX.

Response by Brian King, Senior Scientist, Office of Smoking and Health, CDC

1. **Describe what you are spreading (ideas, practices, programs, policies).**

   We know what works to effectively reduce tobacco use, and if we were to fully invest in and implement these proven strategies, we could significantly reduce the staggering toll that tobacco takes on our families and in our communities. Evidence-based, statewide tobacco control programs that are comprehensive, sustained, and accountable have been shown to reduce smoking rates, as well as tobacco-related diseases and deaths. This comprehensive approach combines educational, clinical, regulatory, economic, and social strategies. Research has documented the effectiveness of laws and policies in a comprehensive tobacco control effort to protect the public from secondhand smoke exposure, promote cessation, and prevent initiation, including: increasing the price of tobacco products; implementing and enforcing smoke-free laws; warning about the dangers of tobacco use with antismoking media campaigns; and increasing access to help quitting. Additionally, research has shown greater effectiveness with multicomponent interventional efforts that integrate the implementation of programmatic and policy initiatives to influence social norms, systems, and networks.

2. **Please explain what spread and scale means in the context of what you do.**
   a. **What is the size or scope of the scale-up/spread?**

      Proven population-based tobacco prevention and control interventions, including ─ increasing the price of tobacco products, implementing and enforcing smoke-free laws, warning about the dangers of tobacco use with antismoking media campaigns, and increasing access to help quitting ─ can and are being implemented at the national, state, and local levels.

   b. **How many organizations (e.g. schools, hospitals, communities, etc.) have adopted the strategies (programs, practices, etc.)?**

      To date, all fifty states have tobacco control programs; however, only two (Alaska and North Dakota) currently fund tobacco control programs at CDC-recommended levels. Moreover, adoption of proven population-based tobacco control strategies varies by state. To date, 26 states have comprehensive smoke-free laws prohibiting smoking in indoor areas of worksites and public places, including restaurants and bars; all 50 states have cigarette excise taxes, but wide variability exists (from 17 cents per pack in Missouri to $4.35 per pack in New York); implementation of antismoking media campaigns varies by state, with some states relying solely on federal campaigns (e.g. Tips from Former Smokers); all 50 states have a tobacco quitline, but services rendered (e.g. free nicotine patches) varies across states.

   c. **How many individuals (e.g. clients, patients, students, etc.) have been reached by the scale-up effort? How do you measure this?**

      Reach of proven tobacco prevention and control interventions varies by state, with implementation being greater in states with lower tobacco use and secondhand smoke exposure. To date, over 150 million U.S. residents are covered by statewide and/or local laws prohibiting smoking in indoor areas of worksites and public places, including restaurants and bars. Moreover, all states are covered by cigarette excise taxes, with the exception those living on Native American Reservations; however, variability exists across states. Coverage is typically assessed using a combination of legislative tracking systems and/or self-reported data from public health surveillance systems, as well as population data from the U.S. Census Bureau.

   d. **What proportion of your target demographic have you reached? How do you measure this?**

      Population coverage of proven tobacco prevention and control interventions also varies by state. For example, approximately 50% of the U.S. population is covered by statewide and/or local laws prohibiting smoking in indoor areas of worksites and public places, including restaurants and bars. Coverage is typically assessed using a combination of legislative tracking systems and/or self-reported data from public health surveillance systems, as well as population data from the U.S. Census Bureau.

3. **What is your ultimate goal?**

   Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. For three decades, *Healthy People* has established benchmarks and monitored progress for national objectives. The *Healthy People* goal for tobacco is to reduce illness, disability, and death related to tobacco use and secondhand smoke exposure; there are twenty objectives to assess progress toward this goal (www.healthypeople.gov).

   a. **What is your timeline for achieving the goal?**

      Healthy People 2020, which was launched in December 2010, continues the tradition of the program's ambitious, yet achievable, 10-year agenda for improving the Nation's health. For all twenty tobacco-related objectives, specific targets have been established for expected achievement by the year 2020.

   b. **How long has it taken you to scale-up the ideas, practices, programs, policies to get where you are now?**

      In January 1964, the U.S. Surgeon General released the first report on smoking and health—a landmark federal document report linking smoking to lung cancer and heart disease in men. This scientifically rigorous report laid the foundation for tobacco prevention and control efforts in the U.S. Since 1964, a considerable body of scientific evidence, coupled with national and state tobacco control experiences, has developed. We now know what works to effectively prevent and reduce tobacco use; however, these strategies are not fully implemented in many states and the tobacco landscape continues to evolve. Most recently, the 50th anniversary Surgeon General's report outlined a

retrospective of tobacco control over the past five decades, as well as a summary of proven strategies to curtail the tobacco epidemic.

c. What barriers have limited your success in reaching your goals?

Many state programs have experienced and are facing substantial state government cuts to tobacco control funding, resulting in the near-elimination of tobacco control programs in those states. In 2014, despite combined revenue of more than $25 billion from settlement payments and tobacco excise taxes for all states, states will spend only $481.2 million (1.9%) on comprehensive tobacco control programs, representing <15% of the CDC-recommended level of funding. Moreover, only Alaska and North Dakota currently fund tobacco control programs at CDC-recommended levels. To complicate matters, the tobacco industry spends more than $8 billion each year, or $23 million per day, to market cigarettes in the U.S.

4. Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).

a. What theory/approaches do you use to get people to adopt your (idea, practices, programs, policies)?

Multiple models and theoretical frameworks exist for the purposes of health promotion and may be applied in the context of tobacco control interventions. Identifying a model and/or theoretical framework depends on the factors that are to be addressed and the setting in which the intervention or program will take place.

i. Have you used a particular theory of action or framework of scale or spread?

Some of the most commonly used theoretical frameworks in the context of tobacco control include, but are not limited to, the Transtheoretical Model, Theory of Planned Behavior, and Social-Ecological Model. Development of workplace tobacco control interventions may be informed by a single model or theoretical framework, or may encompass more than one.

ii. What steps did you go through in order to spread a program?

The continuum of change associated with implementing tobacco prevention and control interventions typically starts with increasing people's knowledge of the benefits of such interventions, changing their attitudes toward the acceptability of tobacco use and exposing non-smokers to SHS, and enhancing their favourability toward these interventions. Such changes can lead to increases in the adoption of, and compliance with, tobacco control interventions as people become more conscious of their public health benefits. Although statewide interventions provide greater population coverage than local restrictions, the strongest protections have traditionally originated at the local level. These laws/interventions have typically spread to multiple communities throughout a state and lay the groundwork for statewide laws/interventions.

iii. What investment strategies did you use to spread a program?

CDC's *Best Practices for Comprehensive Tobacco Control Programs—2014* is an evidence-based guide to help states plan and establish comprehensive tobacco control programs (www.cdc.gov/tobacco/stateandcommunity/best_practices). This report describes an integrated budget structure for implementing interventions proven to be effective, and the minimum and recommended state investment that would be required to reduce tobacco use in each state. In the report, the annual investment needed to implement the recommended components of a comprehensive program ranged from $7.41 to $10.53 per capita across the 50 states and D.C.

iv. Did you need to make organizational changes to bring something to scale?

We know what works to effectively reduce tobacco use, and if we were to fully invest in and implement these proven strategies, we could significantly reduce the staggering toll from tobacco use. States that have made larger investments in comprehensive tobacco control programs have seen larger declines in cigarettes sales than the U.S. as a whole, and the prevalence of smoking among adults and youth has declined faster as spending has increased. Additionally, the longer states invest in such programs, the greater and quicker the impact. Therefore, organizational changes to fully implement and sustain comprehensive tobacco control programs at CDC recommended levels are critical to make the organizational changes required to effectively achieve *Healthy People 2020* goals.

v. Were resources already in place to support the scaling strategy or did you need to find special resources to implement the scaling?

CDC's Office on Smoking and Health created the National Tobacco Control Program (NTCP) in 1999 to encourage coordinated, national efforts to reduce tobacco-related diseases and deaths. The program provides funding and technical support to state and territorial health departments, including all 50 states, D.C., 8 U.S. territories, six national networks, and eight tribal support centers. However, state resources are also required to fully fund and sustain comprehensive tobacco control programs; this funding t varies by state. In fiscal year 2014, the states will collect $25 billion in revenue from the tobacco settlement and tobacco taxes, but will spend only 1.9% of it on programs to prevent kids from smoking and help smokers quit. This means the states are spending less than two cents of every dollar in tobacco revenue to fight tobacco use.

Institute of Medicine Roundtable on Population Health Improvement
Achieving Meaningful Population Health Outcomes: A Workshop on Spread and Scale
December 4, 2014 8:00-5:30pm

Jeannette Noltenius, MA, PhD member of the National Latino Alliance for Health Equity, the National Latino Tobacco Control Network and the Phoenix Equity Group (PEG), but statement is my own.

1. Describe what you are spreading (ideas, practices, programs, policies).

As Latino networks and as part of the Phoenix Equity Group we promote reducing tobacco use, promote healthy eating, active living and health equity. A) Data collection, use and dissemination by subgroups is essential to understanding how to reach/engage/mobilize the diversity of members of our nation and the future generations: 1 in 4 youth is Latino, 2 out of 4 are minorities, in 2043 the nation will be majority/minority. (http://nationalequityatlas.org. B) Health equity is about social justice, inequities are growing and structural racism and social determinants of health have to radically change to improve health in America. Place matters, housing segregation impacts health. C) Comprehensive approaches should not only be about policies (private, public, local, state, federal: raising taxes, smoke free air, cessation, restriction of ads, sales to minors, strong product regulation, etc.) but focus on local engagement, multi-ethnic leadership, capacity building and targeted media campaigns. There is no silver bullet, policies don't affect populations equitably, they may impact quickly but leave many behind. D) There is limited interest and therefore limited funding for research projects that focus on specific priority populations. Population level interventions don't necessarily work for priority populations and there is limited evidence for what does work. E) There are promising practices that reach these populations, but these need to be systematically evaluated and replicated. www.appealforhealth.org, www.latinotobaccocontrol.org, www.legacyforhealth.org F) Funding for leadership and capacity building is essential to achieve and defend gains at all levels. G) Multi-ethnic/LGBT efforts have to be supported to create political power. Master Settlement Agreement (MSA) funds, state funds raised from taxes, and CDC, FDA, foundation funds have to be destined to reach the most vulnerable and the growing racial, ethnic composition of the nation, the poor and those suffering from mental health/substance abuse.

2. Please explain what spread and scale means in the context of what you do.

National means inclusive of US territories, jurisdictions & Indian Nations and reaching all segregated marginalized communities. Scale-up means reaching all. It is not about one policy or one ad for each group, it is about different actors, messages and messengers. It means integrating leadership so as to represent the changing demographics and perspectives, equitably distributing resources, and changing the focus of population based approaches to reach those left behind.

a) What is the size or scope of the scale-up/spread?

Unfortunately funders think that funding one or several national racial/ethnic networks at $ 400 to $ 700,000 per year they are "reaching" all minorities. This is a false premise since policies, programs and efforts need to have depth and breath and have everyone focusing on those left behind in pockets of poverty and segregation. Media is segmented and industries target certain groups, funders need to do the same.

b) How many organizations (e.g., schools, hospitals, communities etc.) have adopted the strategies) programs and practices, etc?

Listservs, newsletters and information reach 10,000 people, but active participants are around 500 for Latinos and maybe 4,000 overall. Networks are ineffective if groups don't have funds to act locally. In MN with BCBS MN & Department of Health (DOH) funding Latinos & others have adopted tobacco free policies in more than 200 apartment buildings, churches, day cares, restaurants, businesses, two colleges, etc and healthy eating active living policies (healthy options, labels, bike racks, built environment, farmers markets, etc.). ClearWay MN has funded the LAAMP Multi-cultural Leadership program and has obtained policy results. MN has made achieving Health Equity a goal. But funding has been eliminated in WA, OH, where leadership was being built and mobilized and dwindled in CA, IN, NC, FL, TX, NM, CO, NV, MD, and most states etc. so many community-based organizations are no longer working on policies or programs. Smoke free policies in NY and CA did not impact businesses with less than 5 employees where many minorities work. The President signed the Family Smoking Prevention and Tobacco Control Act that gave the FDA authority over regulating tobacco. But, mentholated cigarettes used heavily by African Americans, Native Hawaiians and youth (starter cigarette), were not included in the law and after 5 years these are yet to be regulated/banned. Flavored cigarettes were eliminated but the industry created flavored cigarillos and cigars (used by minority youth) that can be individually purchased and are cheaper. So the products favored by minorities and vulnerable youth have not been regulated/taxed appropriately. E-cigarettes, Hookah and smokeless products are invading the market. Over 98% of MSA funds and most of the cigarette taxes have NOT been used for tobacco control. We failed to make an impact on politicians as to why progress is stalled and industry tactics have adjusted by marketing multiple products.

c) How many individuals (e.g. clients, patients, students, etc.) have been reached by the scale-up efforts? How do you measure this?

We counted towns, cities with large minority populations that went smoke free, housing developments, schools, churches, etc. and the prevalence of youth and adult BRFSS and Household Surveys done by federal agencies. But these surveys do not gather data by subgroups and/or report on Asian Americans, Native Hawaiians or Native Americans and/or LGBTs. More data and research is needed, disseminated and used!

d) What proportion of our target population have you reached? How do you measure this?

We cannot measure the impact of policies in an in-depth manner. Prevalence is only one measure. We can measure how many media outlets and messages are sent, and how many people call quitlines, but not necessarily whether clean indoor air policies are effective, enforced, accepted, and whether people quit all tobacco products, nor whether norms have changed systemically in communities of color, LGBT, reservations, territories, etc. in homeless shelters, public housing, etc.

3. What is your ultimate goal?

a) What is our timeline for achieving the goal?

A world where the disparate needs of diverse communities are measured addressed and resolved in an equitable manner. We will start with focusing on

commercial tobacco use; equitable tobacco control prevention and control outcomes and promoting systems change that values equity at its core and inclusion of communities affected. (Phoenix Equity Group)

b) How long has it taken you to scale-up the ideas, practices, programs, policies to get where you are now?

Several of our leaders started with the ASSIST program in 1991, and with funding from the CDC Office of Tobacco and Health for national networks in 1994, and Robert Wood Johnson Foundation's network initiative in 1997. All funding has ebbed and waned.

c) What barriers have limited your success in reaching your goals?

Many national Latino and minority organizations and political leaders have received tobacco, fast food, alcohol and soda industries funding and/or sponsorship and therefore are beholden to them. At the local, state, and federal levels, policy initiatives have been opposed by these groups/politicians. Public heath funders have not systematically help these groups/individuals divest of this funding. Mainstream organizations, governments and foundations have not considered the importance of engaging racial/ethnic minority groups in their decision-making process, policies development and/or actions. Tobacco control, active living and healthy eating are not priorities in minority communities since they are dealing with jobs, housing, education, immigration and law enforcement. Engagement in the political process is still in its infancy in some communities. Anti-immigrant sentiment, discrimination and homophobia, have dampened engagement in some states and fear of deportation and/or reprisals is real, yet events have energized some groups.

4. Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).

Minority leaders writing in minority news outlets or appearing in TV create local echo effect that impact local politicians to act responsibly and support systemic policy changes.

a) What theory approaches do you use to get people to adopt your (ideas, etc.)

Apply Models of Readiness by APPEAL, go to where communities live, work, play, pray, and build leadership.

Response by Sally Herndon, director of North Carolina's Tobacco Control Network

Institute of Medicine Roundtable on Population Health Improvement
Achieving Meaningful Population Health Outcomes: A Workshop on Spread and Scale
December 4, 2014 8:00-5:30pm

1. Describe what you are spreading (ideas, practices, programs, policies).

The NC Tobacco Prevention and Control Branch (NC TPCB) works with partners to spread evidence-based practices in tobacco prevention and control. We promote all strategies recommended by the Guide for Community Preventive Services and CDC Best Practices for Comprehensive Tobacco Control Programs (2014) This includes changing social norms through policy, particularly to raise the price of tobacco products; make all workplaces and public places smoke-free; and to adequately invest in tobacco prevention and control strategies, including state and community interventions; mass reach health communication; tobacco cessation interventions; surveillance and evaluation, and infrastructure, administration and management. For today's panel discussion, I will focus mostly on spreading smoke-free policies, as that is where NC has made the most progress.

2. Please explain what spread and scale means in the context of what you do.

a. What is the size or scope of the scale-up/spread?

NC tobacco control partners are working to make all workplaces and public places smoke-free. We do this incrementally without closing doors on future progress.

b. How many organizations (e.g., schools, hospitals, communities, etc.) have adopted the strategies (programs, practices, etc.)?

Despite passage of the preemptive state law, TPCB worked with NC Alliance for Health (NCAH), Justus-Warren Heart Disease and Stroke Prevention Task Force and other networked partners to make incremental changes in social norms and policy, making the NC General Assembly smokefree (2006), and then all state government buildings and vehicles 100% tobacco-free and long-term care facilities smokefree(2007); all public schools 100% tobacco free (2008); all state prisons 100% tobacco-free (2009); all long-term care facilities smoke-free (2007). NC became the first southern state to pass a law to make all restaurants and bars smoke-free (2010). This law also reinstated the authority of local governments to make government buildings, grounds and public places smoke-free, with public places defined as indoor spaces where the public is invited inside. NC communities have risen to this opportunity, passing 816 county and municipal regulations since preemptive legislation was lifted in 2010. NC has 38 smoke-free public housing properties and 274 smoke-free affordable housing properties. More than half (35 of 58) of NC Community Colleges are 100% tobacco-free.

c. How many individuals (e.g., clients, patients, students, etc.) have been reached by the scale-up effort? How do you measure this?

Previously, we have counted policies, laws and government regulations. We are working to add counts of the numbers of people protected from secondhand smoke in these venues. Southern states (least likely to protect all people from tobacco smoke) will be meeting with CDC next week to determine some uniform measures for this.

d. What proportion of your target population have you reached? How do you measure this?

The NC Behavioral Risk Factor Surveillance System (2013) shows that 10% of adults are exposed each week to secondhand smoke in the workplace and 15% of adults are exposed to secondhand smoke by someone smoking in their home. In addition, 11.7% of adults report being exposed to secondhand smoke in the home from smoke drifting from another apartment or from outdoors. The NC Youth Tobacco Survey (2013) reports that 13.6% of high school students are exposed to secondhand smoke in the home and 18.4% report exposure in vehicles.

3. What is your ultimate goal?

a. What is your timeline for achieving the goal?

- To eliminate exposure to secondhand smoke in NC by 2020.

b. How long has it taken you to scale-up the ideas, practices, programs, policies to get where you are now?

NC TPCB was first funded under the National Cancer Institute's Project ASSIST in 1991. Prior to the intervention stage which began in 1994, the NC General Assembly passed "preemptive" legislation, requiring that NC set aside 20% of state government buildings for smoking as practicable, and that local governments could not pass more restrictive regulations. Core funding moved from NCI to CDC in 1999. The Robert Wood Johnson Foundation funded tobacco control initiatives (SmokeLess States) and a Youth Tobacco Use Prevention Grant for NC and the American Legacy Foundation funded a NC Youth Empowerment Grant. These funds greatly benefited NC's work in tobacco use prevention and control. In 2002, the NC General Assembly created the NC Health and Wellness Trust Fund with Tobacco Master Settlement Agreement funds to focus primarily on teen tobacco use prevention and cessation. The NC Health and Wellness Trust Fund budgeted between $6.2 million -$18 million per year before they were abolished by the NC General Assembly in 2011.

c. What barriers have limited your success in reaching your goals?

Let me first emphasize the positive to produce spread and scope. Facilitators have included using engaged data, networked partners and multi-level leaders to advance evidence based policies. Engaged data includes the sound science of the health and economic impact of secondhand smoke on populations, communities at risk, and maps and charts of where policies have been passed. Effective champions often include not only experts and officials, but survivors and victims. The most common barrier today is that political will is lacking to impose regulations on private sector businesses.

4. Describe your approach to disseminating/spreading your (ideas, practices, programs, policies).
a. What theory/approaches do you use to get people to adopt your (ideas, practices, programs, policies)?
i. Have you used a particular theory of action or framework of scale or spread? ii. What steps did you go through in order to spread a program? iii. What investment strategies did you use to spread a program? iv. Did you need to make organizational changes to bring something to scale? v. Were resources already in place to support the scaling strategy or did you need to find special resources to implement the scaling?

NC tobacco control partners have strived to employ an interactive tobacco control infrastructure called ***The Component Model of Infrastructure*** and its 5 interrelated core components: multilevel leadership; managed resources, engaged data; responsive plans and planning; and networked partnerships (AJPH 6-12-14). NC partners have approached the spread of smoke-free/tobacco free policies by emphasizing the health and economic benefits of these regulations. The NC partners have used ***diffusion of innovation theory*** in taking an incremental and at times opportunistic approach to make progress toward the goal of eliminating exposure to secondhand smoke. A strategic planning resource called ***Nine Strategies Questions*** is used to take steps including identifying the goal, the decision-makers and how to reach them; including building support using the data on the health and economic impact along with key spokespersons from those communities to share the benefits with others like them. For example, we facilitated workshops for schools that went 100% tobacco free campus-wide to tell their success stories to other school districts. Soon, hospitals saw the need to do this as well. NC TPCB mapped the progress, and when the percent of schools adopting a tobacco free policy reached the tipping point, a well respected Senator who was also a family physician from eastern NC introduced legislation to require the remaining school districts to adopt a 100% tobacco free policy, and hospitals followed suit in a similar manner with help from NC Prevention Partners and a Duke Endowment grant. All state operated mental health, developmental disabilities and substance abuse treatment facilities became 100% tobacco free campus-wide in 2014, and these facilities are actively integrating tobacco cessation into treatment, where just a few years ago cigarette use was tolerated if not encouraged as patients worked on alcohol and other drug abuse problems.

When the House Majority Leader (a lung cancer survivor) began to build support for a law banning smoking in restaurants and bars, the NC Restaurant and Lodging Association promoted a level playing field for businesses. Skilled state and local public health partners worked closely with skilled outside-government advocates from the NC Alliance

for Health and NC Association of Local Health Directors to educate the public and decision-makers. After three years of education and building support, a strong bi-partisan law was passed making all NC restaurants and bars smoke-free as of January 2, 2010. NC TPCB worked with Local Health directors to implement this law with fidelity across 100 counties. NC TPCB evaluated the impact using the CDC Evaluation Toolkit, and disseminated the positive evaluation results routinely and widely. The evaluation results include the following: 1) 89% improvement in air quality; 2) 21% decline in weekly emergency department visits for heart attacks statewide the year the law went into effect, and 3) voter approval rating of 83%. The CDC Foundation funds were invested through the "Hospitality Project" in tools to make the transition to smoke-free easier for NC restaurants and bars, including a video of three restaurant/bar owners talking about their positive experience of going smoke-free in NC, and an economic analysis that showed no negative effect on business or jobs from the law's implementation. Promotional ads and bar coasters emphasized the benefits and help and support for tobacco users who want to quit through QuitlineNC.

1. If you needed to find additional resources, how did you do it?

Resources include funding as well as people resources that can expand support for a policy or program through social capital. Funding for tobacco control has been available (through tobacco taxes and/or Tobacco Master Settlement Agreement funds) but highly unstable in changing political and economic landscapes. The NC Alliance for Health, the external coalition benefited from small sums of private funding, pieced together to maintain a coalition with focus on evidence based policy, media and grassroots development. This included small sums of funding, pieced together on an annual and sometimes monthly basis from voluntary health organizations, RWJ Foundation, Americans for Nonsmokers' Rights and Campaign for Tobacco Free Kids.

Achieving Meaningful Population Health Outcomes

Spread and Scale

Debbie I. Chang, MPH

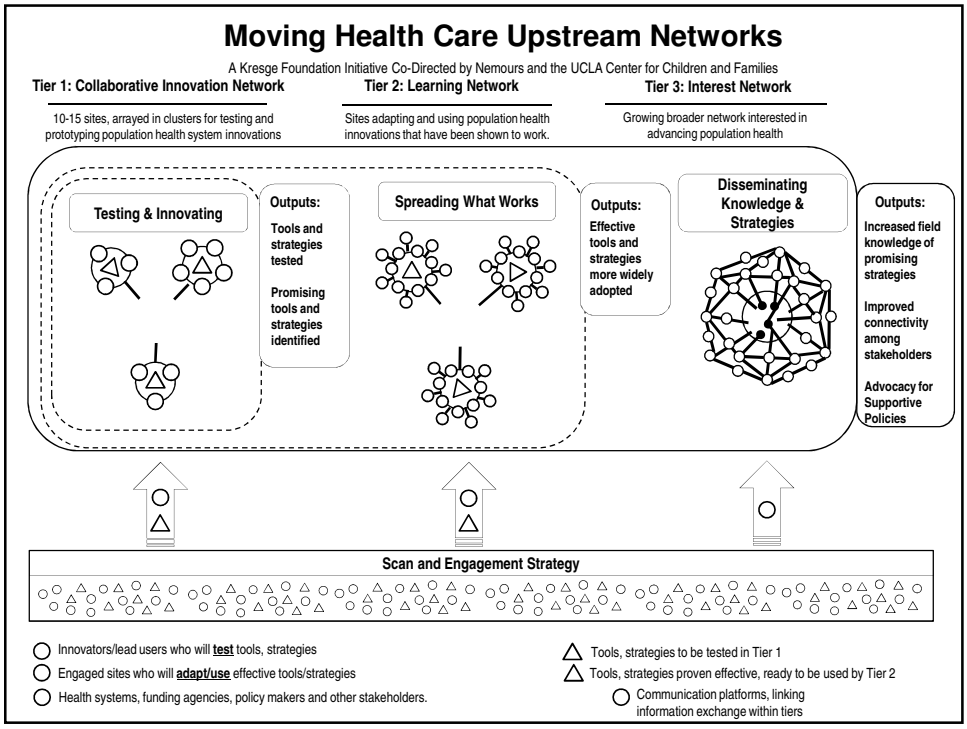
Enterprise Vice President, Policy and Prevention

Nemours.

Call to Action: Accelerating Change

- Promising strategies across sectors must consider spread, scale, and sustainability from the outset
- The resulting infrastructure and financing structures will help support continued capacity, multiplying the impact for future generations
- If we want to see population level changes, we need to change the way we work
  - Currently, pockets of innovation are disconnected
  - In a transformed system, innovations would be tested, spread, scaled and continually refined via a feedback loop
- Given current constraint on resources, the time is now to make the change

Nemours.



Key Questions to Consider

- What is spread and scale?
- What is your ultimate goal?
- What theory/approaches did you use to get people to adopt your (practices, program, policies, ideas)?
- What kinds of barriers did you encounter?
- What kinds of accelerators did you encounter?
- Knowing what you know now, what would you do differently?
- How do you maintain stable/sustainable financing?
- How do you evaluate your success?

Nemours.

The Agenda

- Defining spread and scale
- Different approaches to spread and scale
  - ❑ USAID
  - ❑ CATCH
  - ❑ CMMI
- Examples from other sectors
  - ❑ Housing
  - ❑ Implementation research
  - ❑ Environmental health
- Tobacco control lessons learned
- What's next?

Nemours.

USAID
FROM THE AMERICAN PEOPLE

USAID
ASSIST PROJECT
Applying Science to Strengthen and Improve Systems

Spread and Scale

Institute of Medicine
Roundtable on Population Health Improvement

December 4, 2014

M. Rashad Massoud, MD, MPH, FACP
Director, USAID Applying Science to Strengthen and Improve Systems Project
Senior Vice President, Quality & Performance Institute
University Research Co., LLC – Center for Human Services

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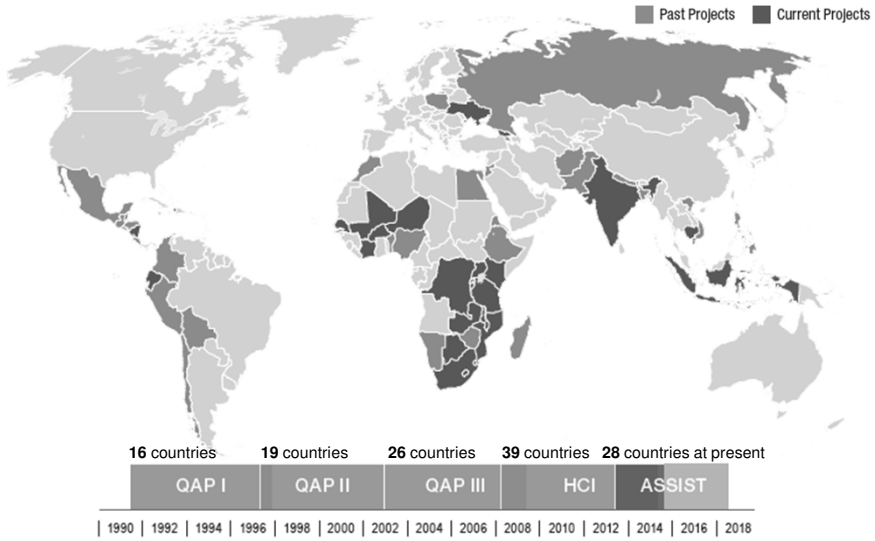
The scale of our work



USAID Applying Science to Strengthen and Improve Systems

Current scale of the ASSIST Project

230+ government and Implementing partners

2500+ QI teams

4400+ facilities

96+ million people in areas served

900+ communities

USAID Applying Science to Strengthen and Improve Systems

What are we improving at what scale?

Scale of USAID ASSIST activities in FY15

Country	Technical Area	Partners	Geographic scale	QI teams	Population coverage
AFRICA					
Botswana		MOH	101 facilities	84	49,047 of 50,048 live births
Burundi		MOH, 6 IPs	70 facilities 24 communities	70	5.6 of 10.6 million
DRC		MOH, 5 IPs	16 facilities	16	16.9 of 72.5 million
Cote d'Ivoire		MOH, 6 IPs	60 facilities	60	6 of 23 million
Kenya		MOH, MLSS&S, NASCOP, 9 IPs	530 facilities 387 communities	800	Health: 33 of 47 counties OVC: 43 of 47 counties (600,000 of 2.4 million vulnerable children)
Lesotho		MOH, 3 IPs	12 facilities 3 of 10 districts	3	417,129 of 1.9 million
Malawi		MOGCSW, MOH, Office of President & Cabinet	12 facilities 72 communities	17	402,664 of 587,214
Mali		MOH, 1 IP	153 facilities 50 communities	203	2.3 of 2.9 million
Mozambique		MMAS, 80 IPs	7 facilities 8 communities	95	1.8 of 11.8 million vulnerable children
Niger		MOPH	16 facilities	16	239,255 of 971,115
Nigeria		MWA&SD, 2 IPs	100 communities 10 of 36 states		200,000 of 2.5 million vulnerable children
South Africa		DOH, 15 IPs	2420 facilities 30 communities	7	2 of 51 million
Swaziland		MOH	85 TB facilities	30	841,752 of 1.1 million
Tanzania		MOHSW, 11 IPs	378 facilities 152 communities	580	19.6 of 45 million
Uganda		MOH, MGLSD, 20 IPs	142 facilities 24 communities	176	2.8 of 36 million
Zambia		MOH, 3 IPs, 2 global partners	8 facilities 1 of 89 districts	8	30,000 of 88,000
EURASIA & ASIA					
Cambodia		All health professions councils: Medical, Nursing, Midwifery, Pharmacists, Dentists	5 councils		20,000+ health workers
Georgia		MOLHSA, 5 IPs	20 facilities	19	1.3 of 4.5 million
India		MOHFW	263 facilities	263	32 million of 1.2 billion
Ukraine		MOH	10 facilities 5 cities	11	2500 of 890,000 women (15-49 yrs)
LATIN AMERICA & CARIBBEAN					
Haiti		MSA, IBESR, 4 IPs	6 facilities 48 communities	5	1.0 of 10.7 million
Nicaragua		UNAN Managua, UNAN Leon, BICU, POLISAL, UPOLI, URACCAN, UCAN, UAM	8 of 13 universities	8	5,157 of 6,192 students

Maternal Newborn and Child Health · HIV · Family Planning · Tuberculosis · Health Workforce · Chronic Care · Nutrition Assessment Counseling and Support · Orphans and Vulnerable Children

USAID Applying Science to Strengthen and Improve Systems

Example: India

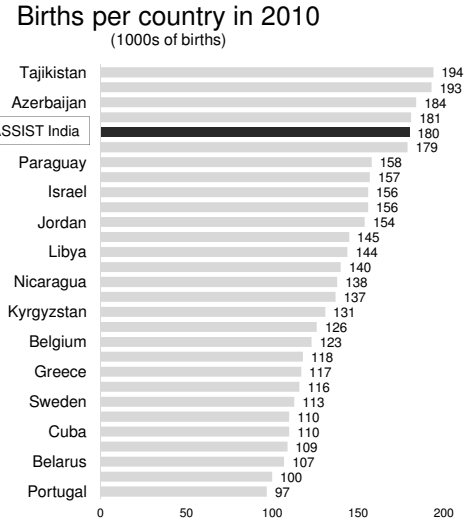
MOHFW

263 facilities

263 QI teams

12-14,000 deliveries per month

30% of deliveries in **27** High Priority Districts



USAID Applying Science to Strengthen and Improve Systems

How do we scale?

- **Collaborative improvement**
- **Extension agents**
- **Wave-sequence spread**
- **Hybrid models**

USAID Applying Science to Strengthen and Improve Systems

Wave Sequence

CATCH®
COORDINATED APPROACH TO CHILD HEALTH

CATCH GLOBAL FOUNDATION

Why school leaders need to care about student, staff, and teacher wellness

Steven H Kelder, PhD, MPH
The UT School of Public Health

UTHealth | School of Public Health Austin Regional Campus
The University of Texas Health Science Center at Houston

MICHAEL & SUSAN DELL CENTER for HEALTHY LIVING

THE UNIVERSITY OF TEXAS MD Anderson Cancer Center
Making Cancer History®

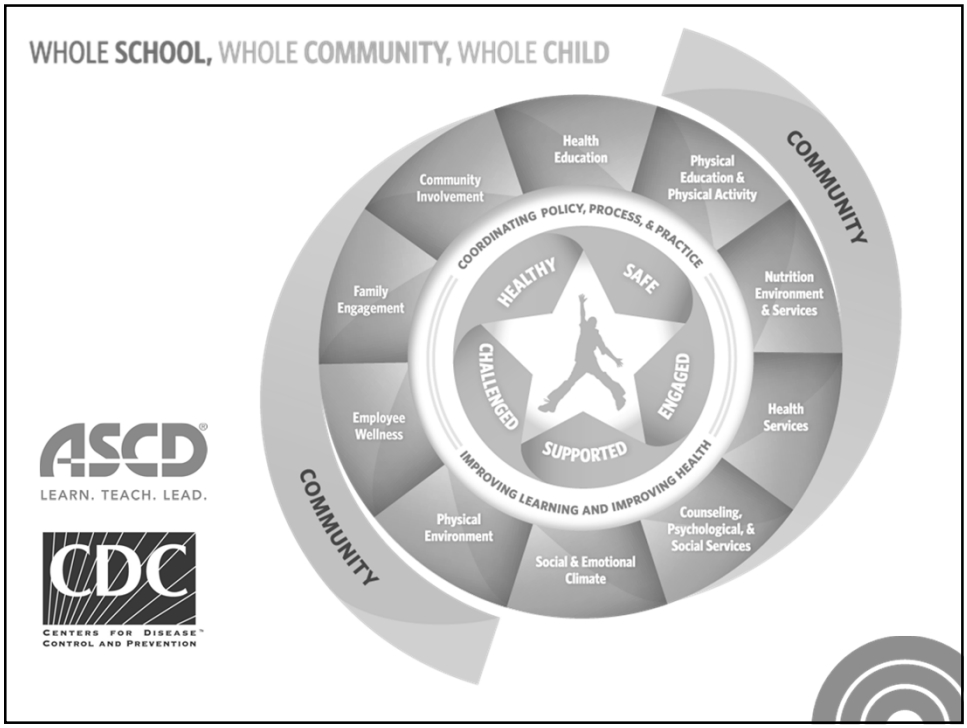
It is time to truly align the sectors and place the child at the center. Both public health and education serve the same students, often in the same settings. We must do more to work together and collaborate.

—WAYNE H. GILES, DIRECTOR, DIVISION OF POPULATION HEALTH, NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION, CDC

ASCD®
LEARN. TEACH. LEAD.

"Health and education affect individuals, society, and the economy and must work together whenever possible. Schools are a perfect solution for this collaboration."

www.ascd.org/whole-child.aspx



CATCH School Health Model

Physical Education

Physical Activity Breaks

Nutrition Services

Campus Team – Program Champion

Pre/After School

Classroom Education

Family Education

UTHealth The University of Texas Health Science Center at Houston School of Public Health

MICHAEL & SUSAN DELL CENTER for HEALTHY LIVING

Desired School Outcomes

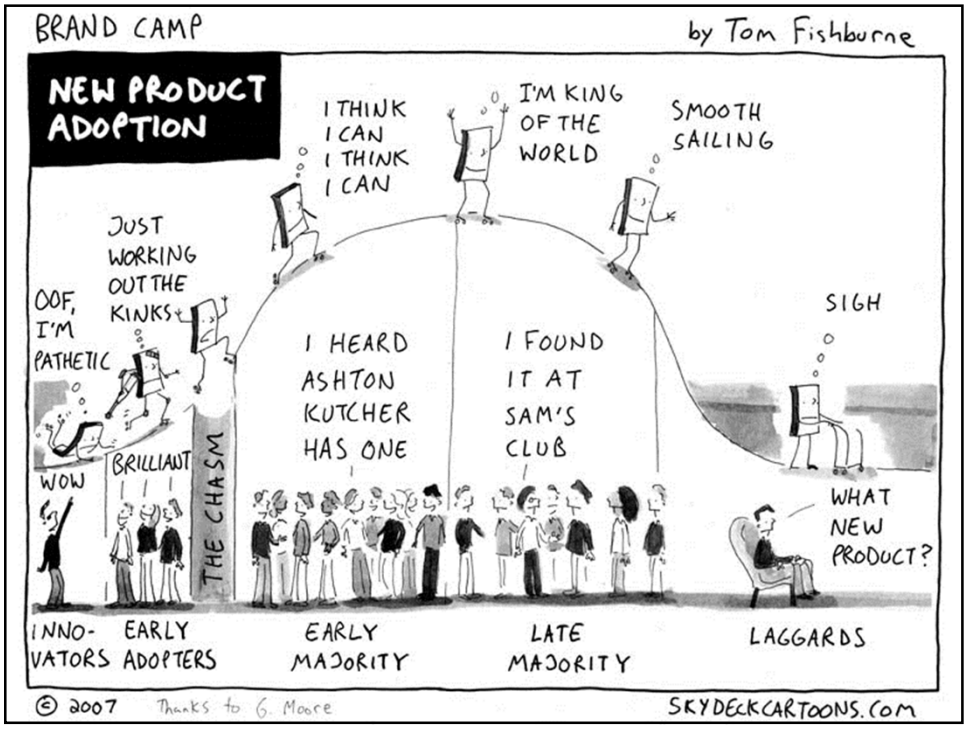
<u>For Students:</u>

- Academic Progress, Achievement, & Success
- Positive Social & Emotional Development
- High Attendance
- Parent & Community Support

<u>For Staff:</u>

- Provide Engaging and Rigorous Instruction
- High Commitment to Improvement
- Positive Morale
- High Attendance

UTHealth The University of Texas Health Science Center at Houston School of Public Health | MICHAEL & SUSAN DELL CENTER for HEALTHY LIVING



Introducing the CATCH Global Foundation!

- Mission: To improve children's health worldwide by developing, disseminating and sustaining the CATCH platform in collaboration with researchers at UTHealth.
- The Foundation links underserved schools and communities to the resources necessary to create and sustain healthy change for future generations.

Thank You!

Steve Kelder, PhD, MPH
Co-Director and Professor of Epidemiology
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The University of Texas School of Public Health
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http://catchinfo.org/

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Zero: 2016

Ending Homeless

COMMUNITY SOLUTIONS

STRENGTHENING COMMUNITIES
ENDING HOMELESSNESS

COMMUNITY SOLUTIONS

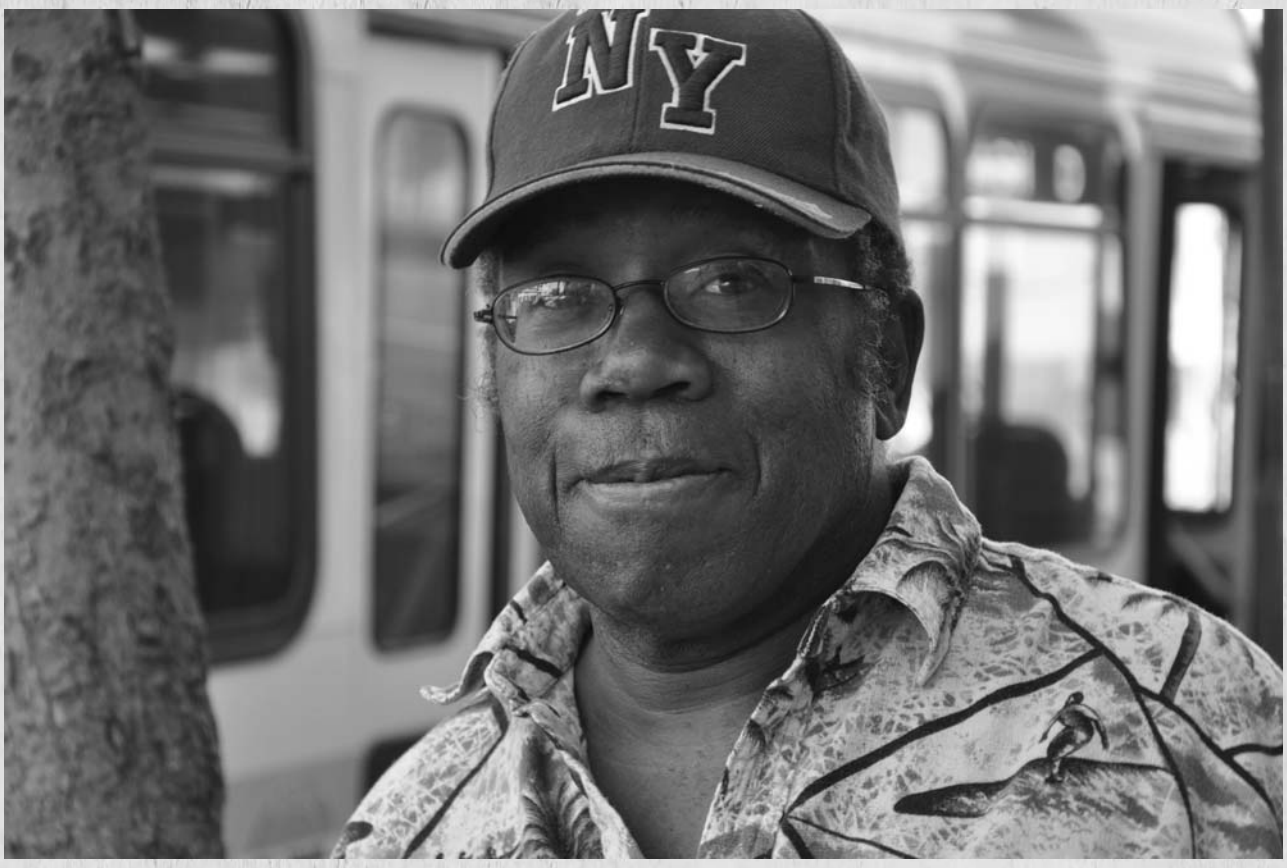
Who We Were

The 100,000 Homes Campaign was a national movement of change agents working together to house 100,000 vulnerable and chronically homeless individuals and families by July of 2014. We did it!

Who we are:

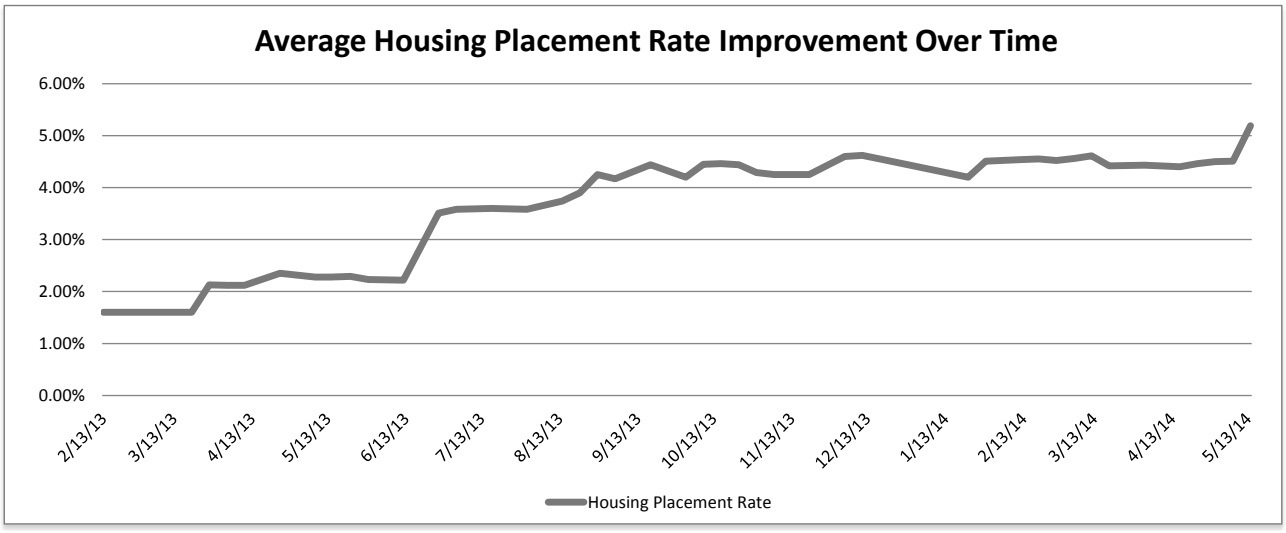
Zero

What stays the same



What changes:

Average Campaign Housing Placement Rate



What changes:

Commitment to END veteran and chronic homelessness

100k Homes Model

This model spread the idea;

Now we have to scale up

Or go home!

What we have learned:

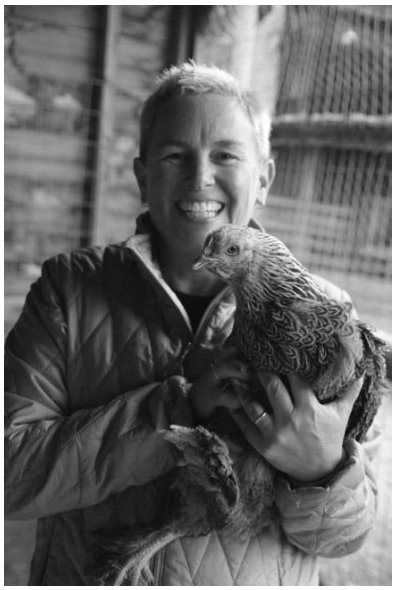
1. Find an idea and start (**prototype**)
2. Try it, learn from screw-ups and change (**pilot**)
3. Share it everywhere (**spread**)
4. Take it to scale (**scale**)*

*apologies to lean startup

Things we learned

Choose a kick-ass leader

Becky Kanis is a once-in-a-generation leader.

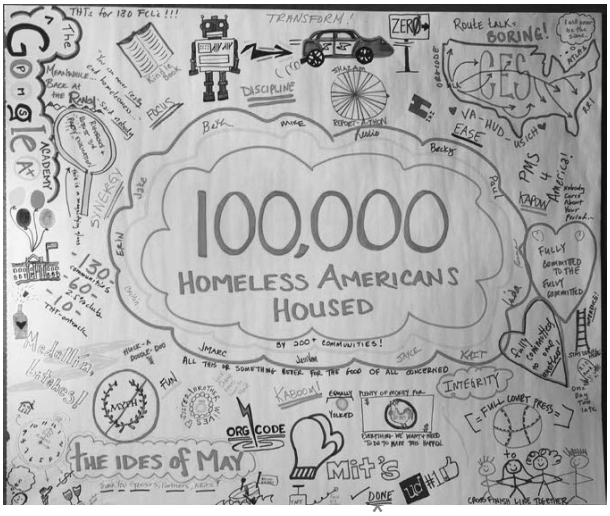


Things we learned

Put together the best team possible

Things we learned

Dream/plan every six months*



Learn, change, grow, kick ass

COMMUNITY
SOLUTIONS

Things we learned

Let the data nerds
lead the strategy

COMMUNITY
SOLUTIONS

COMMUNITY
SOLUTIONS

Biggest Learning

Communities do the most amazing stuff.

Spread that stuff around.

Put it on steroids.

COMMUNITY
SOLUTIONS

COMMUNITY
SOLUTIONS

Contact me

Linda Kaufman

National Movement Manager

lkaufman@cmtysolutions.org

202-425-0611

This is my job and your call is never an interruption.

COMMUNITY SOLUTIONS

COMMUNITY SOLUTIONS

Center for the Advancement of
Critical Time Intervention

Critical Time Intervention

Promoting Effective Support for Vulnerable Populations during Times of Transition

Daniel Herman, Ph.D.
Professor & Associate Dean
Silberman School of Social Work
Hunter College, City University of New York

CTI aims to solidify supports as it spans the period of transition

CTI

CTI differs from traditional case management

Time limited

Focused

Three phases

Strong evidence for effectiveness

Social Programs That Work

Coalition for Evidence-Based Policy
A NONPROFIT, NONPARTISAN ORGANIZATION

HOME ABOUT THIS SITE SOCIAL PROGRAMS REVIEWED RELATED RESOURCES WORKSHOP RCT COMPETITION DONATE

Critical Time Intervention – Top Tier

HIGHLIGHTS

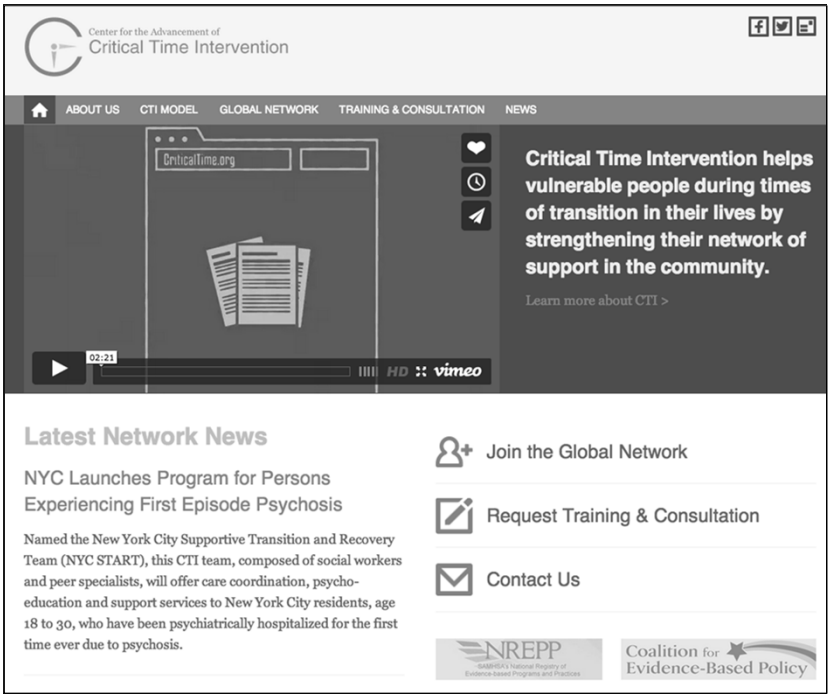
- **Intervention:** A case management program to prevent recurrent homelessness in people with severe mental illness leaving shelters, hospitals, or other institutions.
- **Evaluation Methods:** Two well-conducted randomized controlled trials.
- **Key Findings:** More than a 60% reduction in likelihood of homelessness, 18 months after random assignment.

"Top Tier" Standard

Interventions shown in well-designed and implemented randomized controlled trials, preferably conducted in typical community settings, to produce sizable, sustained benefits to participants and/or society.

Actions to spread

- Professional publications
- Partnerships
  - researchers
  - trainers
  - providers
  - advocates
  - policymakers
- Center for the Advancement of CTI



Concerns

- Sustainability of dissemination efforts
- Promoting adaptation while preventing model drift

What Can We Learn From the Spread and Scale of Tobacco Control?

From Concept to Movement

Brian A. King, PhD, MPH

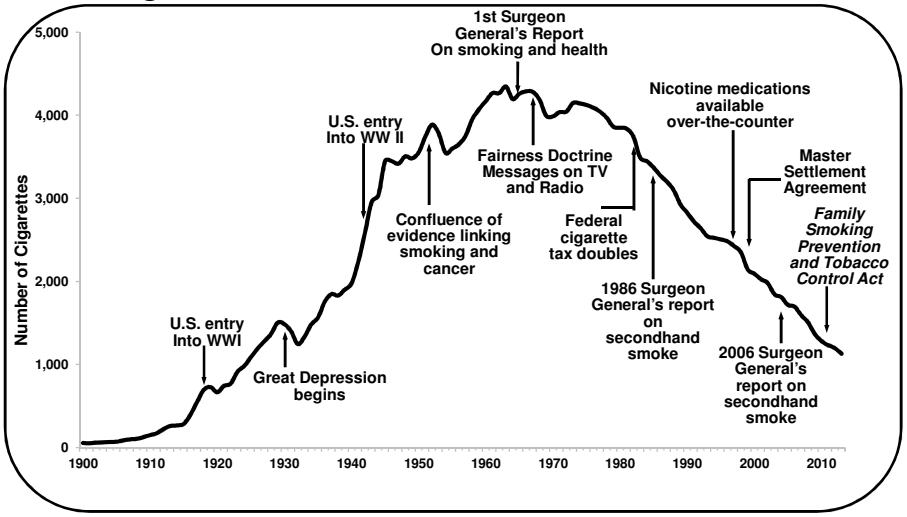
IOM Roundtable on Population Health Impact
Achieving Meaningful Population Health Outcomes: A Workshop on Spread and Scale
December 04, 2014

National Center for Chronic Disease Prevention and Promotion
Office on Smoking and Health

We Know What Works: Evidence Based Interventions

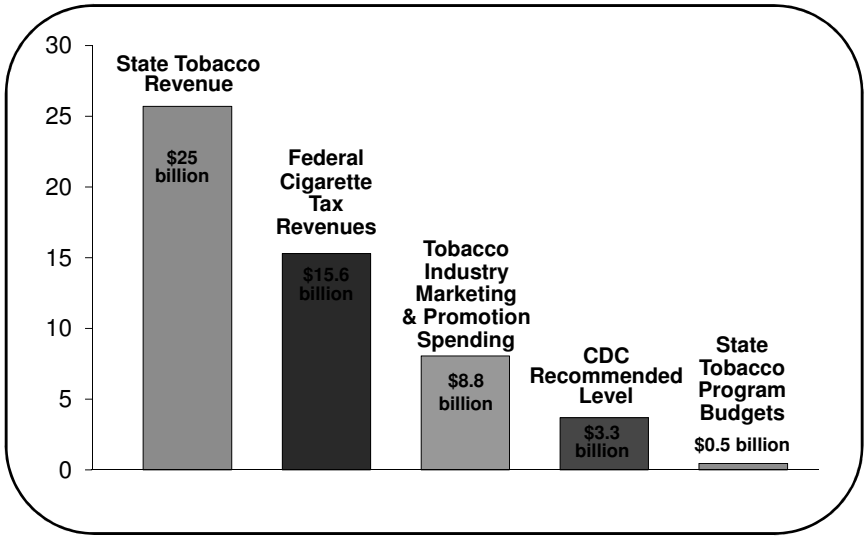
- Sustained funding of comprehensive programs
- 100% smoke-free policies
- Tobacco price increases
- Cessation access
- Hard-hitting media campaigns

Adult Per Capita Cigarette Consumption and Major Smoking-and-Health Events—United States, 1900-2013



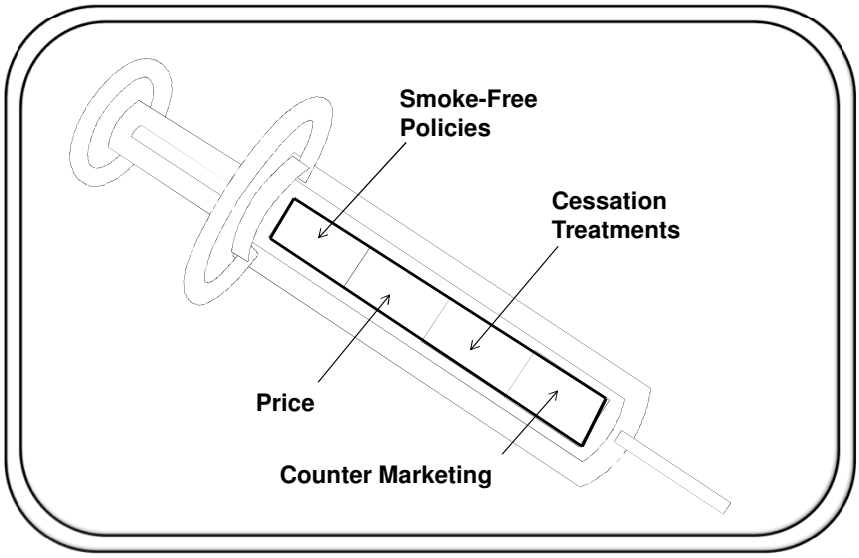
Sources: Adapted from Warner 1985 with permission from Massachusetts Medical Society, ©1985; U.S. Department of Health and Human Services 1989; Creek et al. 1994; U.S. Department of Agriculture 2000; U.S. Census Bureau 2013; U.S. Department of the Treasury 2013.
*Adults ≥18 years of age as reported annually by the Census Bureau.

Tobacco Industry is Outspending Prevention Efforts 18:1



Source: Campaign for Tobacco Free Kids, Federal Trade Commission, 2012 Tax Burden on Tobacco Report, CDC's Best Practices for Comprehensive Tobacco Control Programs.

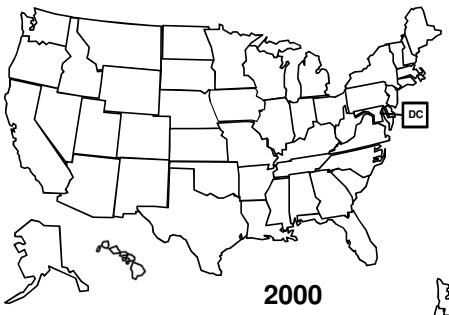
Evidence-Based Population Tobacco Control Interventions



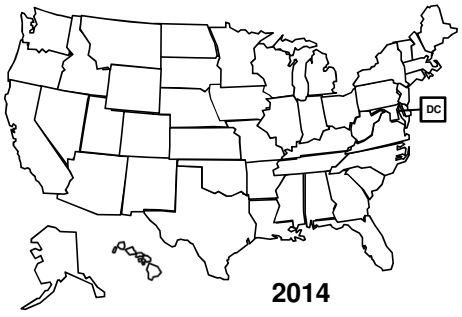
Source: Centers for Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs*. 2014.

Comprehensive Smoke-Free Laws: United States

2000-2014



2000

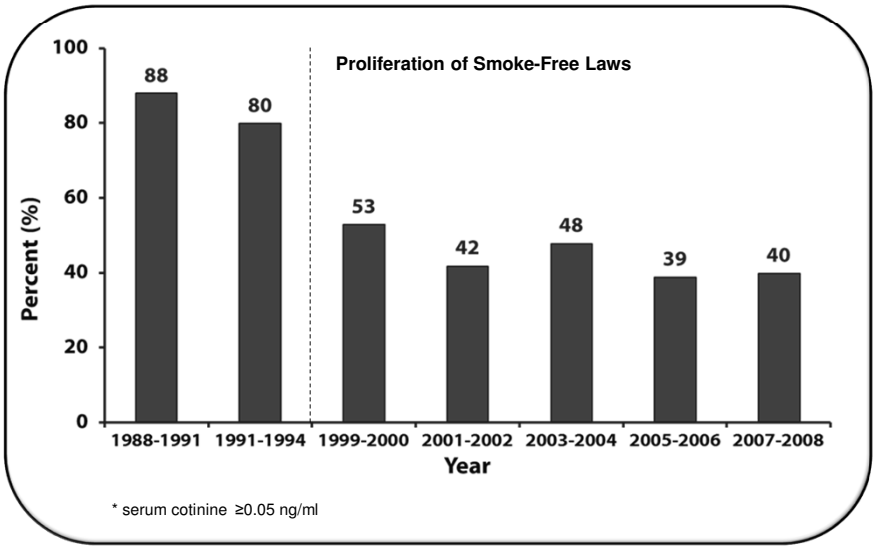


2014

Source: CDC STATE System

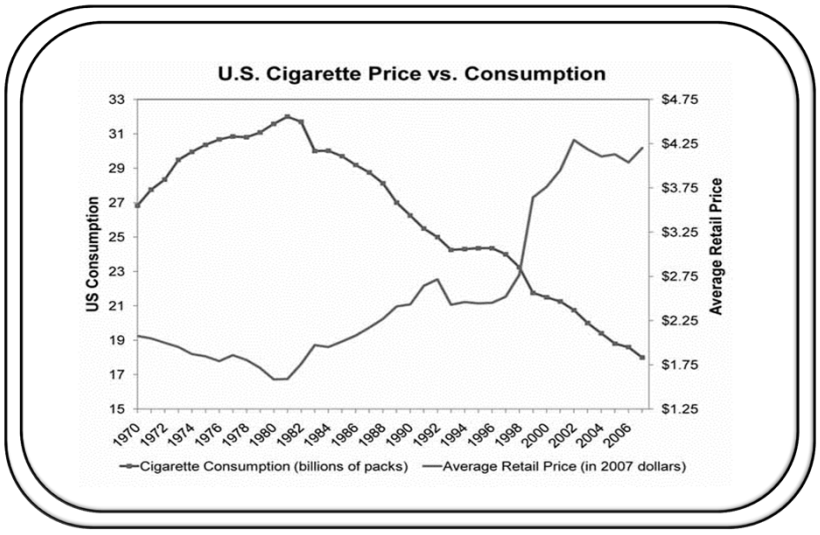
☐ No State Law/Exemptions/ Ventilation/Separation ☐ Partial Law (One Location) ☐ Partial Law (Two Locations) ☐ Comprehensive Law (Worksites & Bars & Restaurants)

Percent of Non-Smoking U.S. Population Exposed* to Secondhand Smoke — NHANES, 1988-2008

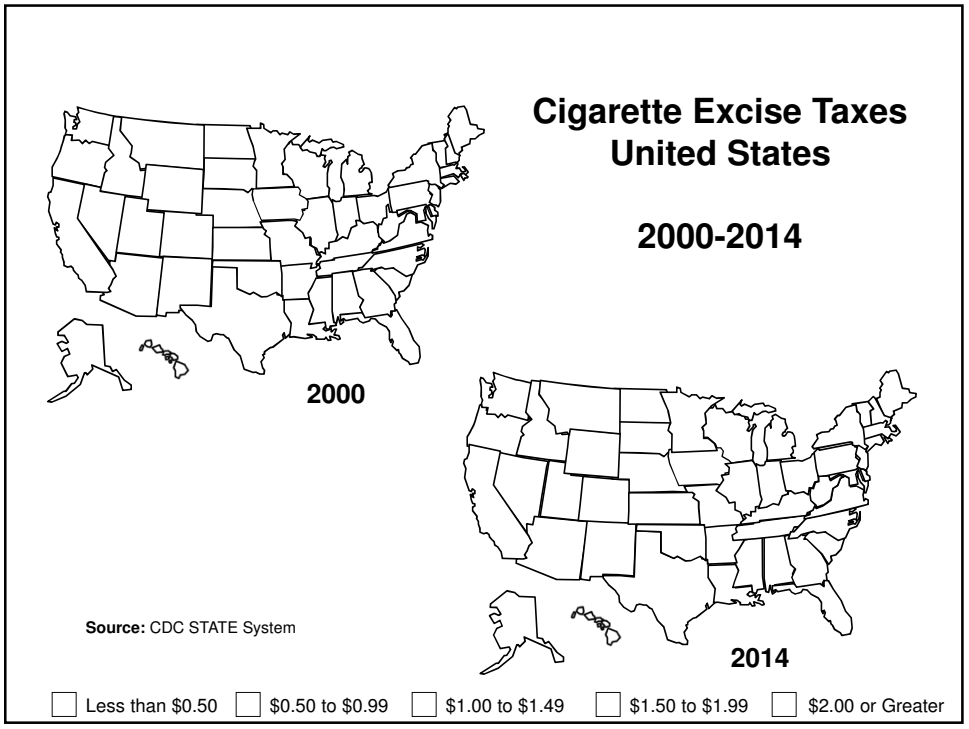


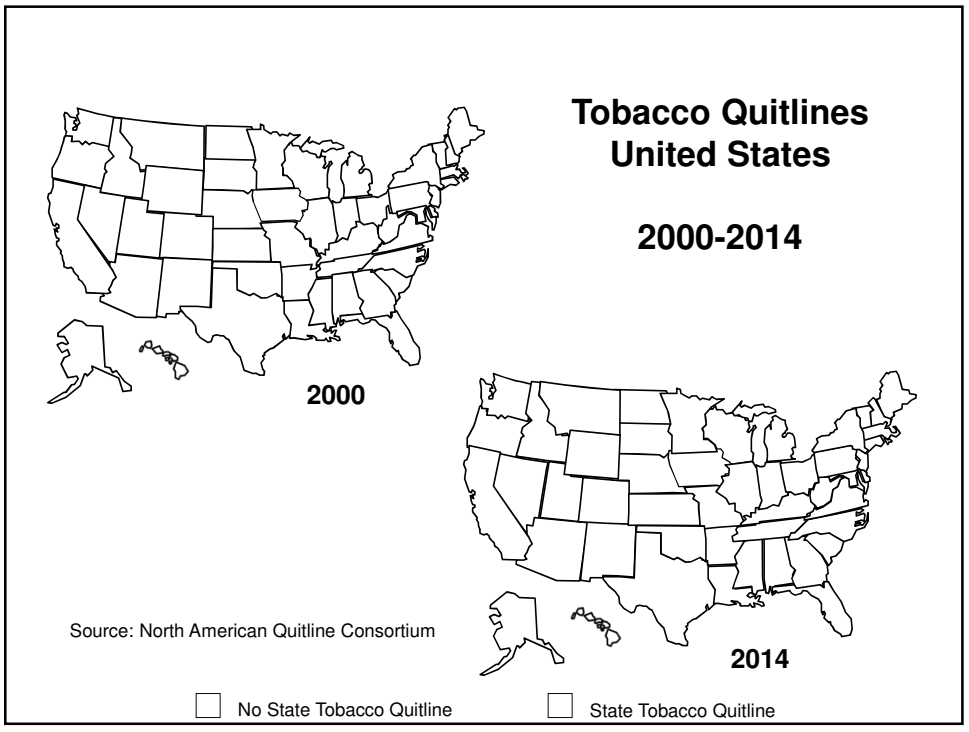
Source: Pirkle JL et al. Trends in Exposure of Nonsmokers in the U.S. Population to SHS: 1988–2002. *Env Hlth Persp.* 2006; 114(6): 853–8.
CDC. Vital Signs: Nonsmokers' Exposure to Secondhand Smoke — United States, 1999-2008. *MMWR.* September 7, 2010. 59; 7-12.

Increasing Tobacco Product Price is the Single Most Effective Method to Reduce Consumption



Source: Orzechowski and Walker. Tax Burden on Tobacco. 2008.


Cigarette Excise Taxes
United States
2000-2014
2000
2014
Source: CDC STATE System
Less than $0.50
$0.50 to $0.99
$1.00 to $1.49
$1.50 to $1.99
$2.00 or Greater


Tobacco Quitlines
United States
2000-2014
2000
2014
Source: North American Quitline Consortium
No State Tobacco Quitline
State Tobacco Quitline

National Media Campaigns: Tips, Truth, The Real Cost

CDC

Legacy

FDA

Contact

Brian A. King, PhD, MPH **baking@cdc.gov**
Office on Smoking and Health **(770) 488-5107**

CDC TOBACCO FREE

www.cdc.gov/tobacco

For more information please contact Centers for Disease Control and Prevention
1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

Achieving Meaningful Population Health Outcomes: A Workshop on Spread and Scale

Jeannette Noltenius, MA, PhD
National Latino Alliance for Health Equity
National Latino Tobacco Control Network
Phoenix Equity Group

Population Projections

Race/Ethnicity	2010	2050
Non-Hispanic Whites	64.7%	46.3%
Hispanic/Latinos*	16%	**30.2%**
African Americans	12.2%	11.8%
Asians	4.5%	7.6%
Native Hawaiians and Pacific Islanders	0.1%	0.2%

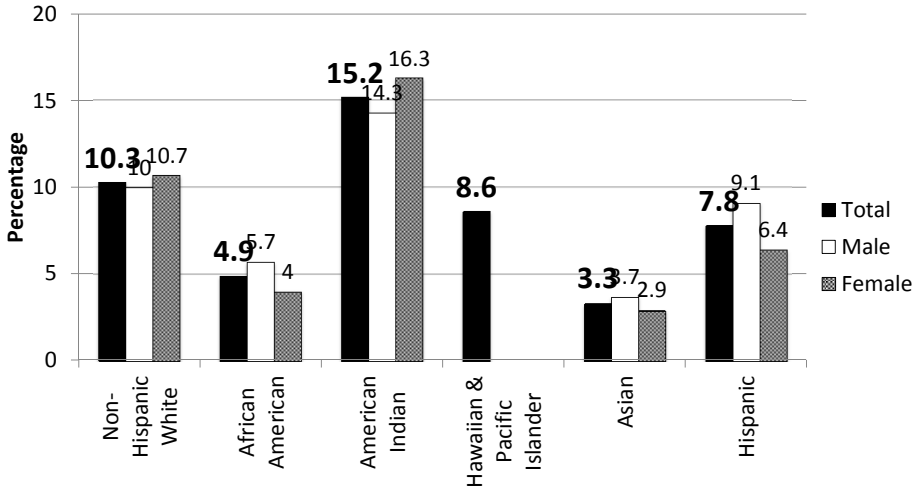
Hispanic/Latino origin was not counted as a race in the 2010 Census
http://www.census.gov/population/www/projections/downloadablefiles.html

Poverty in America in NO longer Invisible!

- Almost one out of sixteen people are living in deep poverty. 6%
- Racial/ethnic minorities, women, children, and families headed by single women are particularly vulnerable to poverty and deep poverty.
- Blacks and Hispanics are more likely than whites to be poor, and to be in poverty and deep poverty.
- More than 1/3 of children are living in poverty/ deep poverty.
- Over one-fourth of adults with a disability live in poverty.

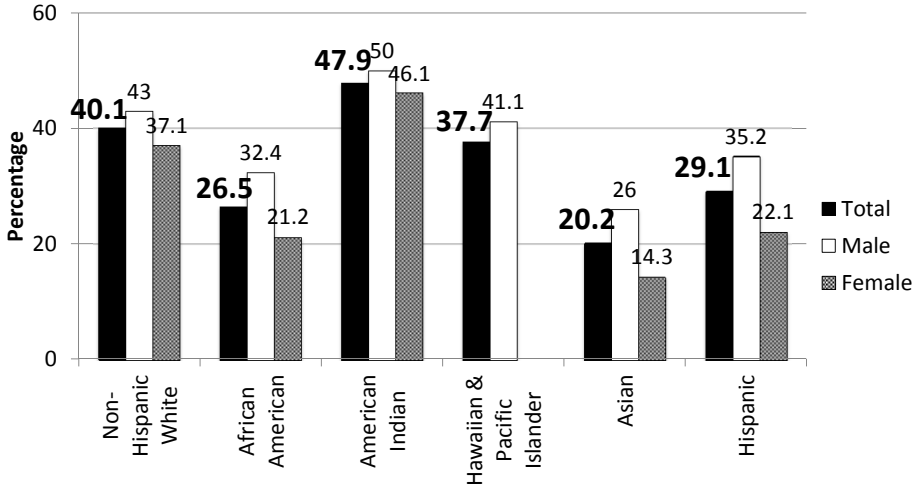
Source: http://www.nclej.org/poverty-in-the-us.php, US Census September 2013

Percentage of current cigarette use among **12-17** year-olds by race/ethnicity and gender



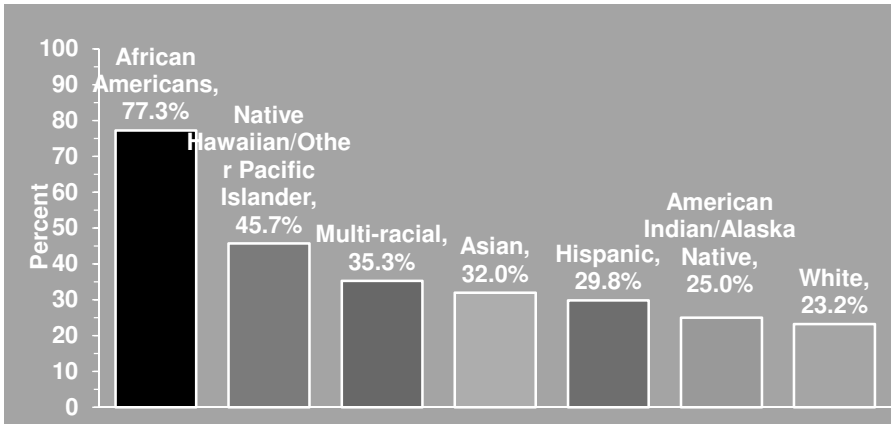
Survey on Drug Use and Health (NSDUH) 2008-2010

Percentage of current cigarette use among **18-25** year-olds by race/ethnicity and gender



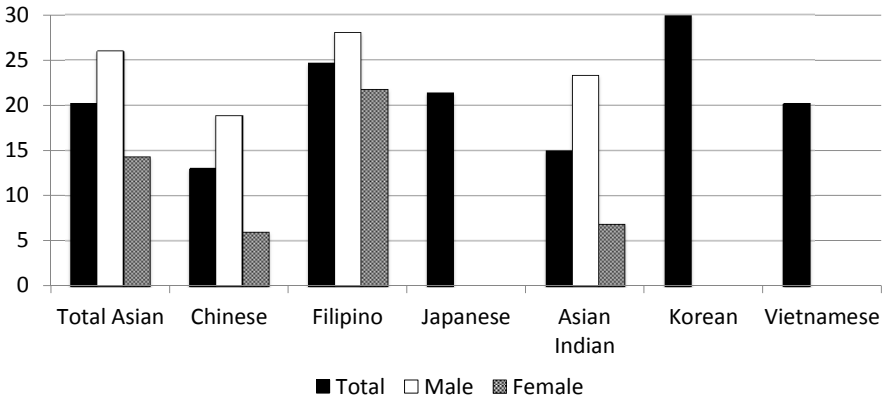
Survey on Drug Use and Health (NSDUH) 2008-2010

Percentage of smokers who use menthol cigarettes by race/ethnicity – U.S. 2007

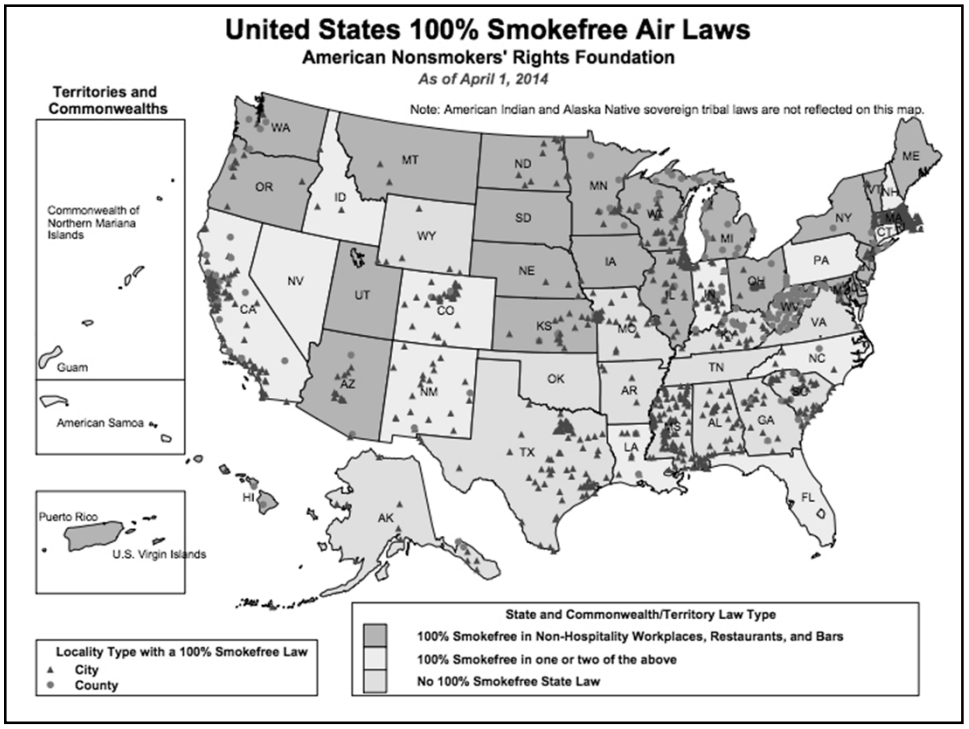


[§]National Surveys on Drug Use and Health, 2002-2007, Caraballo, R, Rock, V, *Overview of Current Use of Menthol Cigarettes and Trends in Recent Years, 2nd Menthol Conference, Oct 2009*

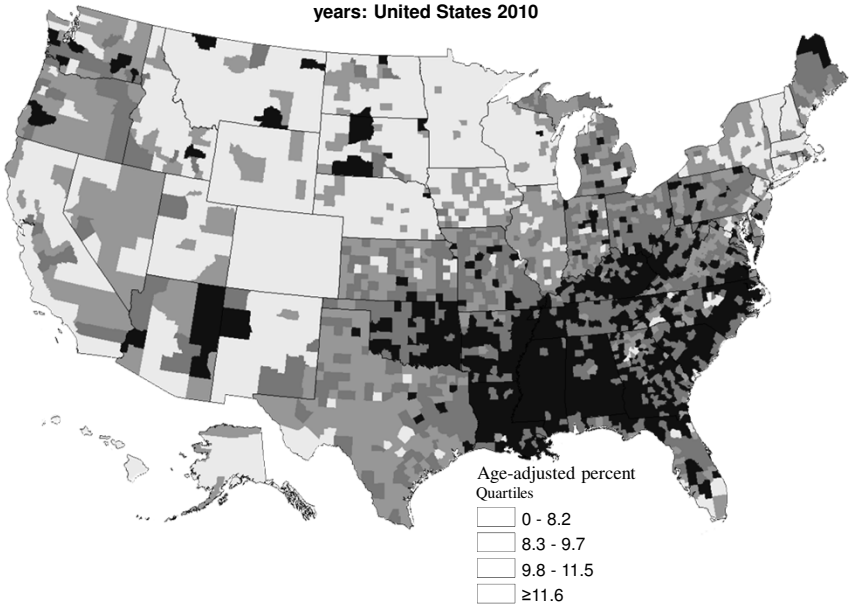
Sub-ethnic differences in tobacco consumption – Asian Americans



Source: Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General, 2012



Age-adjusted County-level Estimates of Diagnosed Diabetes Incidence among Adults aged ≥ 20 years: United States 2010



www.cdc.gov/diabetes

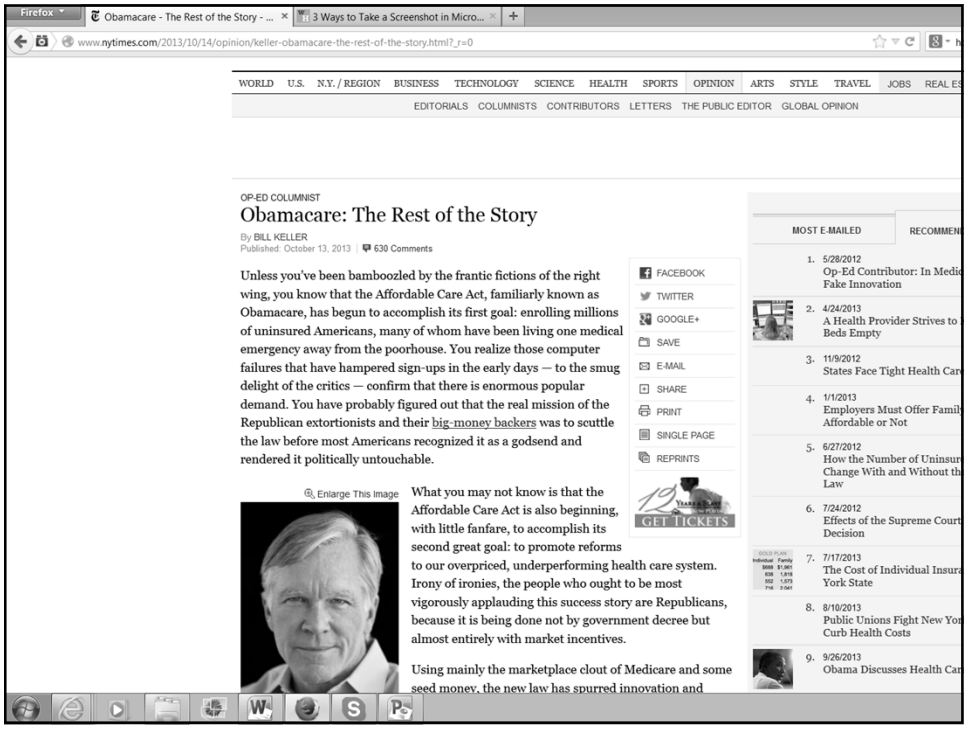
From Contemplation to Action: Keys to Getting Started and Scaling Efficiently

JOE MCCANNON

12.4.2014

Pre-requisites

- Promising prototypes
- Attention from influential leaders and stakeholders
- Conducive context



Firefox | Obamacare - The Rest of the Story - ... | 3 Ways to Take a Screenshot in Micro...

www.nytimes.com/2013/10/14/opinion/keller-obamacare-the-rest-of-the-story.html?_r=0

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EDITORIALS COLUMNISTS CONTRIBUTORS LETTERS THE PUBLIC EDITOR GLOBAL OPINION

OP-ED COLUMNIST

Obamacare: The Rest of the Story

By BILL KELLER
Published: October 13, 2013 | 630 Comments

Unless you've been bamboozled by the frantic fictions of the right wing, you know that the Affordable Care Act, familiarly known as Obamacare, has begun to accomplish its first goal: enrolling millions of uninsured Americans, many of whom have been living one medical emergency away from the poorhouse. You realize those computer failures that have hampered sign-ups in the early days — to the smug delight of the critics — confirm that there is enormous popular demand. You have probably figured out that the real mission of the Republican extortionists and their big-money backers was to scuttle the law before most Americans recognized it as a godsend and rendered it politically untouchable.

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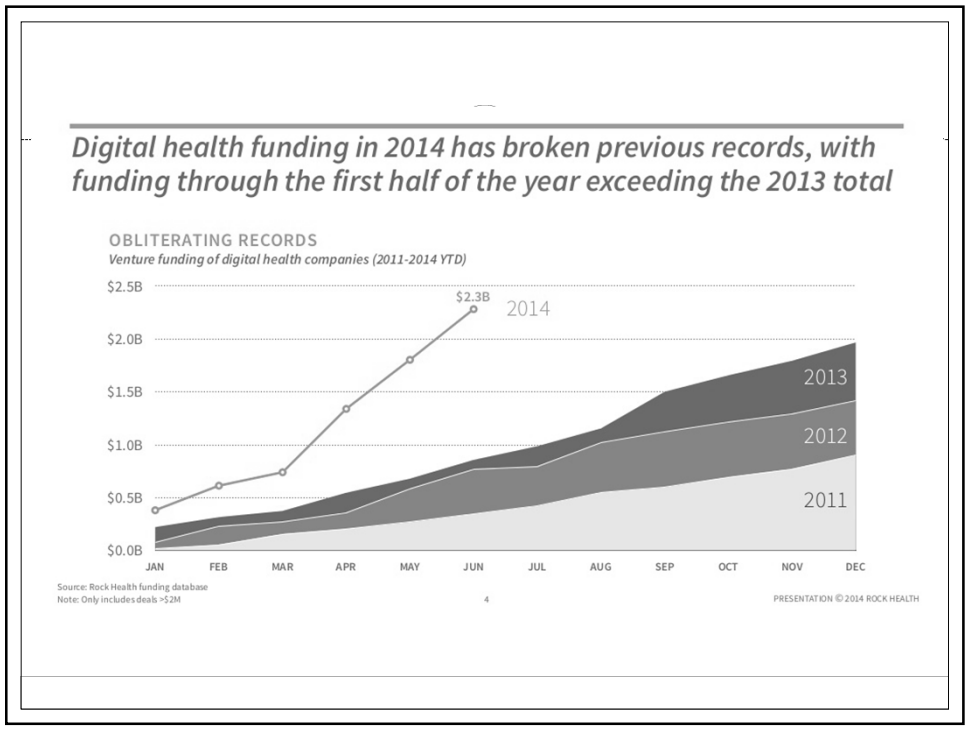
What you may not know is that the Affordable Care Act is also beginning, with little fanfare, to accomplish its second great goal: to promote reforms to our overpriced, underperforming health care system. Irony of ironies, the people who ought to be most vigorously applauding this success story are Republicans, because it is being done not by government decree but almost entirely with market incentives.

Using mainly the marketplace clout of Medicare and some seed money, the new law has spurred innovation and

MOST E-MAILED RECOMMEN

1. 5/28/2012 Op-Ed Contributor: In Medic Fake Innovation
2. 4/24/2013 A Health Provider Strives to Beds Empty
3. 11/9/2012 States Face Tight Health Car
4. 1/1/2013 Employers Must Offer Famil Affordable or Not
5. 6/27/2012 How the Number of Uninsur Change With and Without th Law
6. 7/24/2012 Effects of the Supreme Court Decision
7. 7/17/2013 The Cost of Individual Insur York State
8. 8/10/2013 Public Unions Fight New Yor Curb Health Costs
9. 9/26/2013 Obama Discusses Health Car



So…

How do we seize the moment? Where do we go from here?

Case Examples from Many Sectors

- Infectious disease
- Public health
- Patient safety
- Corrections
- Homelessness
- Sex trafficking

"I think when people look back at our time, they will be amazed at one thing more than any other. It is this – that we do know more about ourselves now than people did in the past, but that very little of this knowledge has been put into effect."

Doris Lessing

Some Challenges…

- Crowded marketplace of ideas
- The myth of natural diffusion
- Conflicting values
- Inertia (business as usual)
- Resignation
- Competition
- Fear

Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	

Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	Bias toward starting

What About Complexity?

- Complexity actually means that excessive strategy is wasteful (even absurd).
- Complexity means that engaging with the world is the only way to know what will work – and when - for each context (the nature of social interventions).
- Complexity means there is no silver bullet solution and so we must get started somewhere.

Source: Auspos, et al., Aspen Institute

Typical v. Exceptional

Typical	**Exceptional**
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	

Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	Consensus kills

Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	Consensus kills
General goals for expansion	

Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	Consensus kills
General goals for expansion	Explicit, time-bound aims

How Much/By When

- Some is not a number. Soon is not a time…
- What does full scale look like?
- How much can we reasonably expect to reach in the next phase of expansion? (Rule of 5x-10x)

Millennium Development Goals

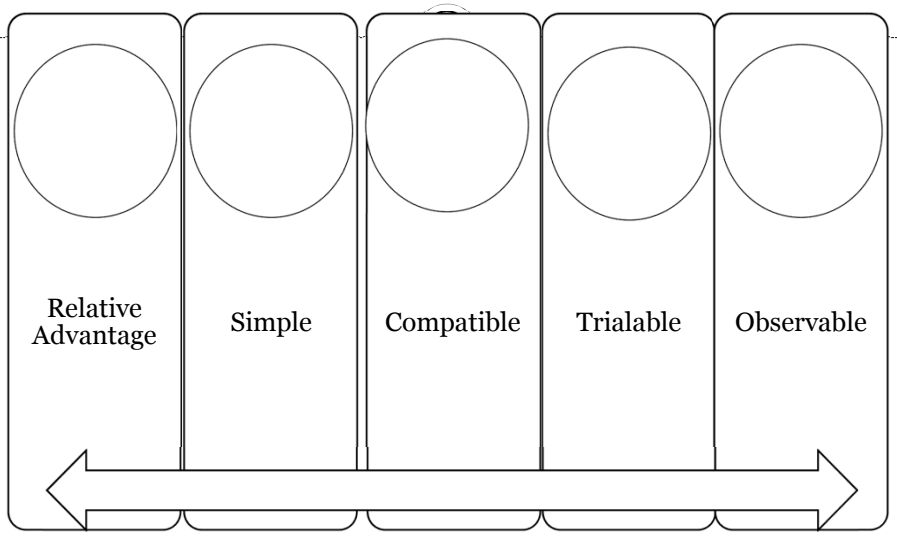
Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	Consensus kills
General goals for expansion	Explicit, time-bound aims
Design for success	

Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	Consensus kills
General goals for expansion	Explicit, time-bound aims
Design for success	Design for success and scale

Attributes of an Idea that Facilitate Adoption



20

Source: Rogers, 1995

Infrastructure Requirements

- Human resources
- Financial resources
- Physical space
- Equipment and supplies
- Data collection
- Technology
- Logistics
- Oversight

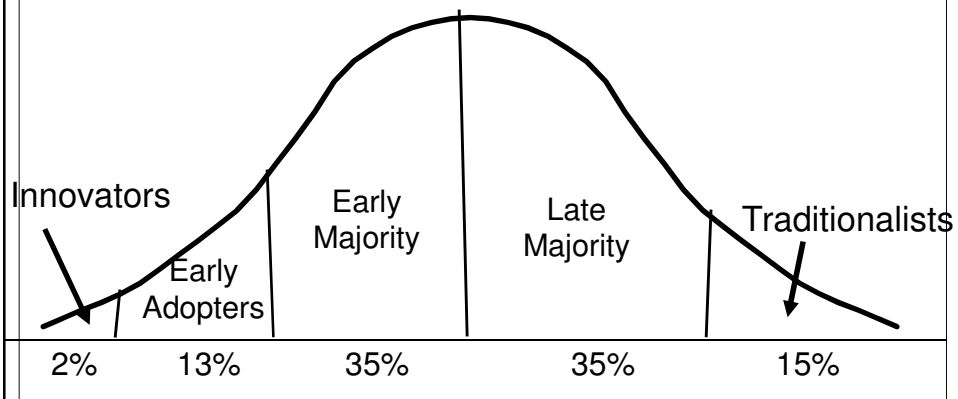
Typical v. Exceptional

Typical	**Exceptional**
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	Consensus kills
General goals for expansion	Explicit, time-bound aims
Design for success	Design for success and scale
Broad knowledge of audience	

Typical v. Exceptional

Typical	Exceptional
Comprehensive strategy development	Bias toward starting
Emphasis on consensus	Consensus kills
General goals for expansion	Explicit, time-bound aims
Design for success	Design for success and scale
Broad knowledge of audience	Detailed audience segmentation

Types of Adopters



24

Source: Rogers, 1995

Other Possible Segmentations

- Readiness (experienced, intermediate, novice)
- Geography (country, state, region, district)
- Type of facility (tertiary, secondary, primary)
- Profession (administrator, doctor, nurse, community health worker)

Typical v. Exceptional

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Emphasis on consensus	Consensus kills
General goals for expansion	Explicit, time-bound aims
Design for success	Design for success and scale
Broad knowledge of audience	Detailed audience segmentation
One stimulant	

Typical v. Exceptional

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Comprehensive strategy development	Bias toward starting
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General goals for expansion	Explicit, time-bound aims
Design for success	Design for success and scale
Broad knowledge of audience	Detailed audience segmentation
One stimulant	Many stimulants

Stimulants

- Emotional connection
- Recognition
- Sensemaking
- Empowerment
- Collaboration
- Enjoyment
- Evidence base
- Payment
- Transparency
- Regulation
- Punishment

POSITIVE

NEGATIVE

Stimulants

- Emotional connection
- Recognition
- Sensemaking
- Empowerment
- Collaboration
- Enjoyment
- Evidence base
- Payment
- Transparency
- Regulation
- Punishment

POSITIVE - 80%

NEGATIVE – 20%

Ed Givens (Before)

Ed Givens (After)

Typical v. Exceptional

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Broad knowledge of audience	Detailed audience segmentation
One stimulant	Many stimulants
One teaching method	

Typical v. Exceptional

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Broad knowledge of audience	Detailed audience segmentation
One stimulant	Many stimulants
One teaching method	Many *learning* methods

Weak Hypotheses

- Papers
- Pamphlets
- Courses
- Web sites
- Conferences

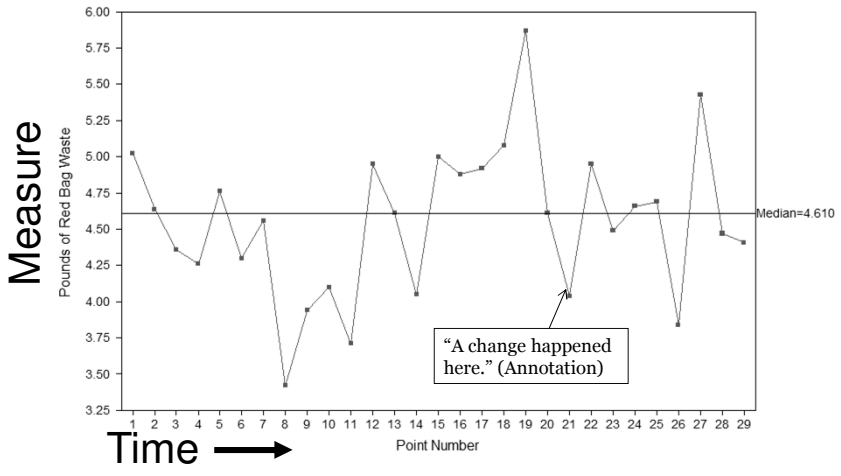
Methods for Spread

- Extension agents
- Breakthrough Series Collaborative model
- Campaign model
- Grassroots organizing
- Wave sequence (wedge and spread)
- Parallel processing (broad and deep)
- Et al.

Core Principals

- Regardless of the method we use, we need hands-on application and *rhythm*.
- Participants must be testing new ideas and assessing their progress <u>every day</u>.

Example Run Chart



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One teaching method	Many *learning* methods
Replication	

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One stimulant	Many stimulants
One teaching method	Many *learning* methods
Replication	Adaptation

The Patient Safety Movement

1. Accreditation/standards
2. Landmark reports
3. Media attention and public attention
4. Pockets of prototypes
5. Simple interventions for a large group of hospitals (e.g., 100,000 Lives Campaign)
6. Major attention from Departments of Health
7. New payment rules
8. Successes at all-cause harm reduction and system and state levels
9. Major national initiatives, involving employers and payers

Typical v. Exceptional

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Replication	Adaptation
Summative evaluation is the priority	

Typical v. Exceptional

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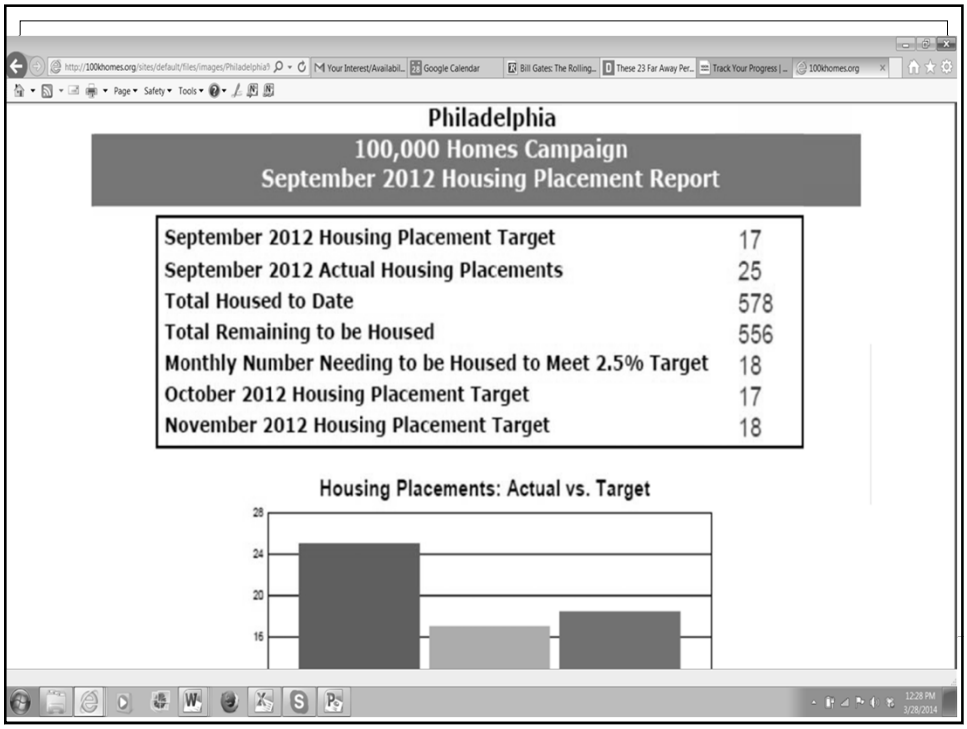
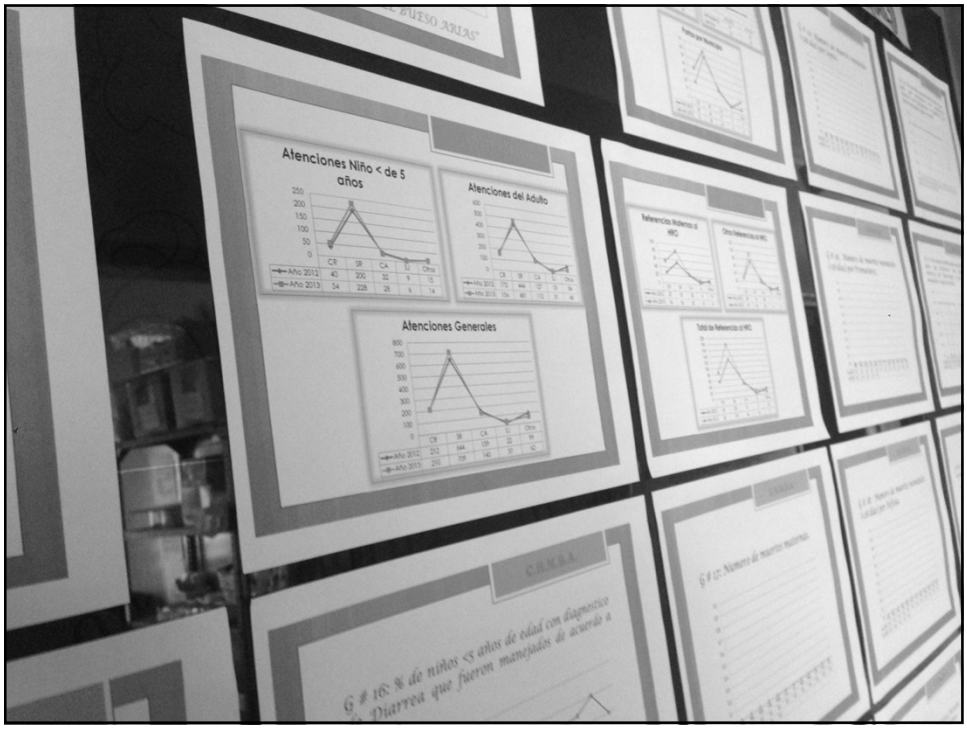
Broad knowledge of audience	Detailed audience segmentation
One stimulant	Many stimulants
One teaching method	Many *learning* methods
Replication	Adaptation
Summative evaluation is the priority	Formative evaluation (daily data) is the priority





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Replication	Adaptation
Summative evaluation is the priority	Formative evaluation (daily data) is the priority
Management gives approval	

Typical v. Exceptional

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Replication	Adaptation
Summative evaluation is the priority	Formative evaluation (daily data) is the priority
Management gives approval	Management removes barriers

How Progress Gets Reported

SCENARIO A

- District representatives submit reports to the central office.
- Central office rewards timely submission.
- Central office occasionally reviews data and ranks performance.
- Underperformers are called in.

How Progress Gets Reported

SCENARIO A

- District representatives submit reports to the central office.
- Central office rewards timely submission.
- Central office occasionally reviews data and ranks performance.
- Underperformers are called in.

SCENARIO B

- Senior officials visit districts and facilities on a rotating basis.
- They spend 25% of their time reviewing progress together, on the same side of the table.
- They spend the rest of time: (1) identifying specific barriers that leadership will remove by the next visit, and (2) identifying new tests that local owners will run.

The John Cusack Rule

Typical v. Exceptional

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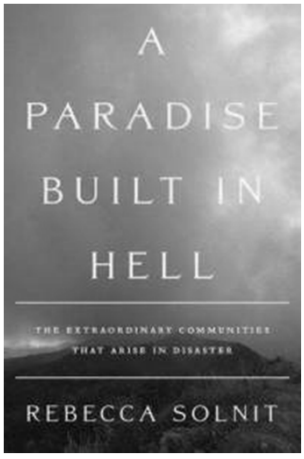

Resource list on spread, scale and sustainability for 12/4/14 workshop

NB: This is a staff-assembled list intended for illustrative purposes. It is neither comprehensive nor complete. We welcome your comments or suggetions.

Defining spread, scale, and sustainability

Hardee, K., L. Ashford, E. Rottach, R. Jolivet, and R. Kiesel. 2012. *The policy dimensions of scaling up health initiatives.* Washington, DC: Health Policy Project, US Agency for International Development. http://www.healthpolicyproject.com/index.cfm?ID=publications&get=pubID&pubID=83

Ilott, I., K. Gerrish, S. Pownall, S. Eltringham, and A. Booth. 2013. Exploring scale-up, spread, and sustainability: An instrumental case study tracing an innovation to enhance dysphagia care. *Implement Sci* 8:128. http://www.implementationscience.com/content/8/1/128

BACKGROUND: Adoption, adaptation, scale-up, spread, and sustainability are ill-defined, undertheorised, and little-researched implementation science concepts. An instrumental case study will track the adoption and adaptation, or not, of a locally developed innovation about dysphagia as a patient safety issue. The case study will examine a conceptual framework with a continuum of spread comprising hierarchical control or 'making it happen', participatory adaptation or 'help it happen', and facilitated evolution or 'let it happen'..

Mangham, L. J., and K. Hanson. 2010. Scaling up in international health: What are the key issues? *Health Policy and Planning* 25(2):85-96. http://heapol.oxfordjournals.org/content/25/2/85.full

The term ‘scaling up’ is now widely used in the international health literature, though it lacks an agreed definition. We review what is meant by scaling up in the context of changes in international health and development over the last decade. We argue that the notion of scaling up is primarily used to describe the ambition or process of expanding the coverage of health interventions, though the term has also referred to increasing the financial, human and capital resources required to expand coverage. We discuss four pertinent issues in scaling up the coverage of health interventions: the costs of scaling up coverage; constraints to scaling up; equity and quality concerns; and key service delivery issues when scaling up. We then review recent progress in scaling up the coverage of health interventions. This includes a considerable increase in the volume of aid, accompanied by numerous new health initiatives and financing mechanisms. There have also been improvements in health outcomes and some examples of successful large-scale programmes. Finally, we reflect on the importance of obtaining a better understanding of how to deliver priority health interventions at scale, the current emphasis on health system strengthening and the challenges of sustaining scaling up in the prevailing global economic environment.

Milat, A. J., L. King, R. Newson, L. Wolfenden, C. Rissel, A. Bauman, and S. Redman. 2014. Increasing the scale and adoption of population health interventions: Experiences and perspectives of policy makers, practitioners, and researchers. *Health Res Policy Syst* 12:18. http://www.health-policy-systems.com/content/pdf/1478-4505-12-18.pdf

BACKGROUND: Decisions to scale up population health interventions from small projects to wider state or national implementation is fundamental to maximising population-wide health improvements. The objectives of this study were to examine: i) how decisions to scale up interventions are currently made in practice; ii) the role that evidence plays in informing decisions

to scale up interventions; and iii) the role policy makers, practitioners, and researchers play in this process. CONCLUSIONS: This analysis articulates the processes of how decisions to scale up interventions are made, the roles of evidence, and contribution of different professional groups. More intervention research that includes data on the effectiveness, reach, and costs of operating at scale and key service delivery issues (including acceptability and fit of interventions and delivery models) should be sought as this has the potential to substantially advance the relevance and ultimately usability of research evidence for scaling up population health action.

Simmons, R., P. Fajans, and L. Ghiron. 2007. *Scaling up health service delivery: From pilot innovations to policies and programmes.* Geneva, Switzerland: World Health Organization. http://www.who.int/reproductivehealth/publications/strategic_approach/9789241563512/en/

Frameworks and Approaches

5 Million Lives Campaign. 2008. *Getting started kit: Sustainability and spread. How-to guide.* Cambridge, M.A.: Institute for Healthcare Improvement. http://www.ihi.org/resources/Pages/Tools/HowtoGuideSustainabilitySpread.aspx

Benjamin, L. M., and D. C. Campbell. 2014. Programs aren't everything. *Stanford Social Innovation Review*, Spring 2014, 42-47. http://www.ssireview.org/articles/entry/programs_arent_everything

Today, more than a decade later, nonprofit organizations still struggle to represent their work in the context of prevailing outcome measurement models. So to understand nonprofit performance fully, the authors need to broaden the lens through which they view the work that staff members do to achieve outcomes for participants. Programs and program outcomes matter a great deal, to be sure. But an outcome measurement model that relies exclusively on "the program" as its unit of analysis will miss a good portion of the work that staff members do. Meanwhile in their research, they have found that nonprofit staff members commonly engage in four types of frontline work: relational work, adjustment work, codetermination work, and linking work. Consequently, the research has led them to formulate four principles of a more comprehensive outcome measurement framework -- principles that reflect the various forms of frontline work. These are: honor relationship, allow variation, respect agency, and support collaboration.

Bradach, J. L. 2003. Going to scale: The challenge of replicating social programs. *Stanford Social Innovation Review*, 19-25. http://www.ssireview.org/articles/entry/going_to_scale/

———. 2010. Scaling impact. *Stanford Social Science Review*, 27-28. http://www.ssireview.org/articles/entry/scaling_impact

Bradach, J., and A. Grindle. 2014. Emerging pathways to transformative scale. *Stanford Social Innovation Review*, Spring 2014. http://www.ssireview.org/articles/entry/emerging_pathways_to_transformative_scale

Gerald Chertavian, founder of Year Up, a nonprofit organization, and other social sector pioneers have started to tackle an even more fundamental question on how they can grow their impact to actually solve problems they care about. In short, how they can achieve a truly transfomative scale. Reviewing their efforts to date, they can identify nine approaches that hold real promise for addressing at a transformative scale a number of major social problems. The approaches are: 1. Distribute through existing platforms. 2. Recruit (and train) others to deliver the solution. 3. Unbundle and scale up the parts that have the greatest impact. 4. Use technology to reach a larger audience. 5. Don't just build organizations and programs, strengthen a field. 6. Change public

systems. 7. Embrace the need for policy change. 8. Don't ignore for-profit models for scale. 9. Alter people's attitudes, beliefs, and behaviors.

_____. 2014. Transformative scale: The future of growing what works. Nine strategies to deliver impact at a scale that truly meets needs. *Stanford Social Innovation Review*, 1-13. http://www.ssireview.org/articles/entry/transformative_scale_the_future_of_growing_what_works

Dees, J. G., A. Beth Battle, and J. Wei-Skillern. 2004. Scaling social impact. *Stanford Social Innovation Review*, Spring 2004, 24-32. http://www.ssireview.org/articles/entry/scaling_social_impact

How can social entrepreneurs effectively scale their impact to reach the many people and communities that could benefit from their innovations? After several years of interviewing social entrepreneurs, foundation officers, and other experts on scale in the social sector, the authors have come to the conclusion that social entrepreneurs, foundation officers, and policymakers need to step back and take a more strategic and systematic approach to the question of how to spread social innovations. Too often, they frame the problem in terms of either "replication," the diffusion and adoption of model social programs, or, more recently, "scaling up," which commonly entails significant organizational growth and central coordination. While neither of these concepts is inherently ill-conceived, failure to place them within a broader strategic framework can blind social sector leaders to promising options and bias them toward a limited set of strategies.

Ebrahim, A., and V. K. Rangan. 2014. What impact? A framework for measuring the scale & scope of social performance. *California Management Review* 56(3). http://www.hbs.edu/faculty/Pages/item.aspx?num=47515

Organizations with social missions, such as nonprofits and social enterprises, are under growing pressure to demonstrate their impacts on pressing societal problems such as global poverty. This article draws on several cases to build a performance assessment framework premised on an organization's operational mission, scale, and scope. Not all organizations should measure their long-term impact, defined as lasting changes in the lives of people and their societies. Rather, some organizations would be better off measuring shorter-term outputs or individual outcomes. Funders such as foundations and impact investors are better positioned to measure systemic impacts.

Evans, S. H., and P. Clarke. 2011. Disseminating orphan innovations. *Stanford Social Innovation Review*, Winter 2011, 42-47. http://www.ssireview.org/articles/entry/disseminating_orphan_innovations

This article tells the story of the experience transplanting a social innovation that was a much-lauded success at its original site but had not spread to other locations. The innovation involves recovering edible but not sellable fresh fruits and vegetables and swiftly distributing these nutritious foods to low-income people via food banks, pantries, and other distribution services - a program that would seem easy to replicate. Eventually the innovation did take root elsewhere - at last count, in more than 150 other locations around the United States - but the process took nearly 20 years and. a great deal of trial and error.

ExpandNet Scaling Up Health Innovations. *Scaling-up bibliography*. http://www.expandnet.net/biblio.htm

FSG. 2014. *Collective insights on collective impact*. Stanford Social Innovation Review for the Collective Impact Forum. http://www.ssireview.org/supplement/collective_insights_on_collective_impact

Gillespie, S. 2004. *Scaling up community-driven development: A synthesis of experience.* Washington, D.C.: International Food Policy Research Institute. http://www.ifpri.org/sites/default/files/publications/fcndp181.pdf

Glasgow, R. E., T. M. Vogt, and S. M. Boles. 1999. Evaluating the public health impact of health promotion interventions: The re-aim framework. *Am J Public Health* 89(9):1322-1327. http://www.ncbi.nlm.nih.gov/pubmed/10474547

Progress in public health and community-based interventions has been hampered by the lack of a comprehensive evaluation framework appropriate to such programs. Multilevel interventions that incorporate policy, environmental, and individual components should be evaluated with measurements suited to their settings, goals, and purpose. In this commentary, the authors propose a model (termed the RE-AIM model) for evaluating public health interventions that assesses 5 dimensions: reach, efficacy, adoption, implementation, and maintenance. These dimensions occur at multiple levels (e.g., individual, clinic or organization, community) and interact to determine the public health or population-based impact of a program or policy. The authors discuss issues in evaluating each of these dimensions and combining them to determine overall public health impact. Failure to adequately evaluate programs on all 5 dimensions can lead to a waste of resources, discontinuities between stages of research, and failure to improve public health to the limits of our capacity. The authors summarize strengths and limitations of the RE-AIM model and recommend areas for future research and application.

Globalizer, A. 2012. *Increasing impact and changing systems by engaging more and more changemakers.* Ashoka globalizer. http://www.ashokaglobalizer.org/files/Ashoka-Globalizer_some%20basics_on%20scaling_social_innovation.pdf

Hanleybrown, F., J. Kania, and M. Kramer. 2012. Channeling change: Making collective impact work. *Stanford Social Innovation Review*. http://partnership2012.com/download/Collective%20Impact%20II.pdf

Hanson, K., M. K. Ranson, V. Oliveira-Cruz, and A. Mills. 2003. Expanding access to priority health interventions: A framework for understanding the constraints to scaling-up. *Journal of International Development* 15(1):1-14. http://onlinelibrary.wiley.com/doi/10.1002/jid.963/abstract

The Commission on Macroeconomics and Health recommended a significant expansion in funding for health interventions in poor countries. However, there are a range of constraints to expanding access to health services: as well as an absolute lack of resources, access to health interventions is hindered by problems of demand, weak service delivery systems, policies at the health and cross-sectoral levels, and constraints related to governance, corruption and geography. This special issue is devoted to analysis of the nature and intensity of these constraints, and how they can best be overcome. Copyright © 2003 John Wiley & Sons, Ltd.

Harris, J. R., Allen Cheadle, Peggy A. Hannon, Mark Forehand, Patricia Lichiello, Eustacia Mahoney. 2012. A framework for disseminating evidence-based health promotion practices. *Preventing Chronic Disease*. http://www.cdc.gov/pcd/issues/2012/11_0081.htm

IHI (Institute for Healthcare Improvement). 2010. A conference to advance the state of the science and practice on scale-up and spread of effective health programs. Meeting papers including a literature review can be found athttp://ihiscaleupconference10.blogspot.com/

Scale-up/spread bibliography
http://www.ihi.org/education/Documents/ProgramMaterials/ScaleUpBlog/8_3_Bibliography_as_of_9.29.pdf

Additional Resources
http://www.ihi.org/education/Documents/ProgramMaterials/ScaleUpBlog/8_3_Additional_Resources_Scale_up_Resources.pdf

MSI (Management Systems International) 2012. *Scaling up-from vision to large-scale change: A management framework for practitioners*. http://www.msiworldwide.com/wp-content/uploads/MSI-Scaling-Up-Framework-2nd-Edition.pdf

MSI. 2012. *Scaling up-from vision to large-scale change: Tools and techniques for practitioners.* Washington, DC: MSI. http://www.msiworldwide.com/wp-content/uploads/MSI-Scaling-Up-Toolkit.pdf

Kania, J., and M. Kramer. 2011. Collective impact. *Stanford Social Innovation Review*, Winter 2011, 36-41. http://www.ssireview.org/articles/entry/collective_impact

Our research shows that successful collective impact initiatives typically have five conditions that together produce true alignment and lead to powerful results: a common agenda, shared measurement systems, mutually reinforcing activities, continuous communication, and backbone support organizations.

Massoud, M. R., K. L. Donohue, and C. J. McCannon. 2010. *Options for large-scale spread of simple, high-impact interventions.* Bethesda, MD.: University Research Co., LLC. http://www.ihi.org/resources/Pages/Publications/OptionsforLargeScaleSpreadSimpleHighImpactInterventions.aspx

Massoud, M.R., G. A. Nielsen, K. Nolan, M. W. Schall, and C. Sevin. 2006. A framework for spread: From local improvements to system-wide change. Cambridge, MA: Institute for Healthcare Improvement. http://www.ihi.org/resources/Pages/IHIWhitePapers/AFrameworkforSpreadWhitePaper.aspx

McCannon, C., D. M. Berwick, and M. Massoud. 2007. The science of large-scale change in global health. *JAMA* 298(16):1937-1939. http://dx.doi.org/10.1001/jama.298.16.1937

Innovation in health care includes important challenges: to find or create technologies and practices that are better able than the prevailing ones to reduce morbidity and mortality and to make those improvements ubiquitous quickly. In many respects in the pursuit of global health, the second challenge—the rapid spread of effective changes—seems to be the greater. Many sound (even powerful) solutions exist, such as new medicines and innovations in health care delivery, but their adoption is unreliable and slow. Often, they remain hidden in pockets around the globe, flourishing locally without reliably reaching those in need elsewhere. Some such solutions come from biomedical research, but even more take shape at the point of care, in settings where local

problem solvers create effective new approaches to problems that others who live far away face as well.

McCannon, C. J., and R. J. Perla. 2009. Learning networks for sustainable, large-scale improvement. *Jt Comm J Qual Patient Saf* 35(5):286-291. http://www.ihi.org/resources/Pages/Publications/LearningNetworksLargeScaleImprovement.aspx

Large-scale improvement efforts known as improvement networks offer structured opportunities for exchange of information and insights into the adaptation of clinical protocols to a variety of settings.

McCannon, C.J., M. W. Schall, and R. J. Perla. 2008. *Planning for scale: A guide for designing large-scale improvement initiatives.* Cambridge, MA: Institute for Healthcare Improvement. http://www.breastfeedingor.org/wp-content/uploads/2012/10/ihiplanningforscalewhitepaper2008.pdf

Nolan, K., M. W. Schall, F. Erb, and T. Nolan. 2005. Using a framework for spread: The case of patient access in the veterans health administration. *Jt Comm J Qual Patient Saf* 31(6):339-347. http://www.ihi.org/education/Documents/ProgramMaterials/ScaleUpBlog/15_Case_Study_Three_08_Schall_VA.pdf

BACKGROUND: Experience indicates that an effective operational system will spread much more slowly than, for example, a new antinausea drug. The Veterans Health Administration (VHA) used a Framework for Spread to spread improvements in access to more than 1800 outpatient clinics between April 2001 and December 2003. The framework identifies strategies and methods for planning and guiding the spread of new ideas or new operational systems, including the responsibilities of leadership, packaging the new ideas, communication, strengthening the social system, measurement and feedback, and knowledge management.

Parcell, A., MDC. 2012. *More to most: Scaling effective community college practices.* Durham, N.C., MDC. http://www.more2most.org/images/M2M.pdf

Preskill, H., Marcie Parkhurst, Jennifer Splansky Juster. 2014. *Guide to evaluating collective impact.* FSG. http://www.fsg.org/tabid/191/ArticleId/1098/Default.aspx?srpush=true

Pronk, N. 2003. Designing and evaluating health promotion programs. *Disease Management & Health Outcomes* 11(3):149-157. http://dx.doi.org/10.2165/00115677-200311030-00002

Roob, N., and J. Bradach. 2009. *Scaling what works: Implications for philanthropists, policymakers, and nonprofit leaders.* http://www.bridgespan.org/Publications-and-Tools/Strategy-Development/Scaling-What-Works-Implications-for-Philanthropist.aspx#.VG4TaPnF-VN

Included in the $787 billion stimulus package and in the $3.5 trillion budget that Congress passed on April 2 are billions of dollars intended to fulfill President Obama's commitment to advance government that "works" and "expand successful programs to scale." The risk is that five years from now we look back and see that billions were spent without clear results. Consider the challenge: National, state and local governments not only have to identify promising programs and help them expand to scale – but they need to do it fast. Such urgency leaves little room, but lots of opportunities, for errors we can ill afford. To avoid these missteps, the public sector and the philanthropic and nonprofit sector must invent new ways of working together in close partnership.

Shore, B., D. Hammond, and A. Celep. 2013. When good is not good enough. *Stanford Social Innovation Review*. Fall 2013, 40-47.
http://www.ssireview.org/articles/entry/when_good_is_not_good_enough

Many of the fastest-growing nonprofit organizations begin with well-intentioned interventions and relatively naive ideas about the magnitude and complexity of the problems they aim to solve. Share Our Strength and KaBOOM! are no exception. By some measures their organizations were successful US nonprofits -- growing rapidly, engaging numerous partners, and improving the lives of tens of millions of children. Yet all the while, the problems they were tackling -- hunger and the lack of opportunities to play -- were getting worse and even accelerating in recent years as the economy took a downturn. Collective impact is one approach for solving problems, but one can use it to tackle a problem at a large or a small scale. If solving social problems is what you aspire to achieve, you need to set long-term, bold goals that acknowledge the magnitude of at issue. Defining a bold goal changes the game, leading to different decisions that set you on a new trajectory, which ultimately leads to greater impact, faster.

Tayabaldi, R. 2014. *Patri framework for scaling social impact.* Supported by Ashoka Globalizer.
http://www.ashokaglobalizer.org/PATRI
http://www.ashokaglobalizer.org/sites/globalizer.ashoka.org/files/PATRI-Framework.pdf

Wandersman, A., J. Duffy, P. Flaspohler, R. Noonan, K. Lubell, L. Stillman, M. Blachman, R. Dunville, and J. Saul. 2008. Bridging the gap between prevention research and practice: The interactive systems framework for dissemination and implementation. *Am J Community Psychol* 41(3-4):171-181. http://www.ncbi.nlm.nih.gov/pubmed/18302018

If we keep on doing what we have been doing, we are going to keep on getting what we have been getting. Concerns about the gap between science and practice are longstanding. There is a need for new approaches to supplement the existing approaches of research to practice models and the evolving community-centered models for bridging this gap. In this article, we present the Interactive Systems Framework for Dissemination and Implementation (ISF) that uses aspects of research to practice models and of community-centered models…The framework is intended to be used by different types of stakeholders (e.g., funders, practitioners, researchers) who can use it to see prevention not only through the lens of their own needs and perspectives, but also as a way to better understand the needs of other stakeholders and systems. It provides a heuristic for understanding the needs, barriers, and resources of the different systems, as well as a structure for summarizing existing research and for illuminating priority areas for new research and action.

Yamey, G. 2011. Scaling up global health interventions: A proposed framework for success. *PLoS Medicine* 8(6):1-5.
http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1001049

Global Scale-up strategies and lessons learned

Bhattacharyya, O., S. Khor, A. McGahan, D. Dunne, A. S. Daar, and P. A. Singer. 2010. Innovative health service delivery models in low and middle income countries - what can we learn from the private sector? *Health Research Policy and Systems* 8:24-24.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3236300/

The poor in low and middle income countries have limited access to health services due to limited purchasing power, residence in underserved areas, and inadequate health literacy. This produces

significant gaps in health care delivery among a population that has a disproportionately large burden of disease. They frequently use the private health sector, due to perceived or actual gaps in public services. A subset of private health organizations, some called social enterprises, have developed novel approaches to increase the availability, affordability and quality of health care services to the poor through innovative health service delivery models. This study aims to characterize these models and identify areas of innovation that have led to effective provision of care for the poor.

Gaziano, T. A., and N. Pagidipati. 2013. Scaling up chronic disease prevention interventions in lower- and middle-income countries. *Annu Rev Public Health* 34:317-335. http://www.annualreviews.org/doi/full/10.1146/annurev-publhealth-031912-114402?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dpubmed

Chronic diseases are increasingly becoming a health burden in lower- and middle-income countries, putting pressure on public health efforts to scale up interventions. This article reviews current efforts in interventions on a population and individual level. Population-level interventions include ongoing efforts to reduce smoking rates, reduce intake of salt and trans-fatty acids, and increase physical activity in increasingly sedentary populations. Individual-level interventions include control and treatment of risk factors for chronic diseases and secondary prevention. This review also discusses the barriers in interventions, particularly those specific to low- and middle-income countries. Continued discussion of proven cost-effective interventions for chronic diseases in the developing world will be useful for improving public health policy.

Hanson, K., S. Cleary, H. Schneider, S. Tantivess, and L. Gilson. 2010. Scaling up health policies and services in low- and middle-income settings. *BMC Health Serv Res* 10 Suppl 1:I1. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2895744/

"Scaling up" effective health services is high on the policy agendas of many countries and international agencies. The current concern has been driven by growing recognition both of the challenges of achieving the health-related Millennium Development Goals (MDGs) in many countries, and of the need to ensure that the increased resources for health channelled through disease-specific health initiatives are able generate health gain at scale. Effective and cost-effective interventions exist to address many of the major causes of disease burden in the developing world, but coverage of many of these services remains low. There is a substantial gap between what could be achieved and what is actually being achieved in terms of health improvement in low- and middle-income countries.

Hirschhorn, L., J. Talbot, A. Irwin, M. May, N. Dhavan, R. Shady, A. Ellner, and R. Weintraub. 2013. From scaling up to sustainability in HIV: Potential lessons for moving forward. *Global Health* 9(1):57. http://www.globalizationandhealth.com/content/9/1/57

In 30years of experience in responding to the HIV epidemic, critical decisions and program characteristics for successful scale-up have been studied. Now leaders face a new challenge: sustaining large-scale HIV prevention programs. Implementers, funders, and the communities served need to assess what strategies and practices of scaling up are also relevant for sustaining delivery at scale … We found 10 domains identified as important for successfully scaling up programs that have potential relevance for sustaining delivery at scale: fiscal support; political support; community involvement, integration, buy-in, and depth; partnerships; balancing flexibility/adaptability and standardization; supportive policy, regulatory, and legal environment; building and sustaining strong organizational capacity; transferring ownership; decentralization; and ongoing focus on sustainability. We identified one additional potential domain important for

programs sustaining delivery at scale: emphasizing equity. CONCLUSIONS: Today, the public and private sector are examining their ability to generate value for populations. All stakeholders are aiming to stem the tide of the HIV epidemic. Implementers need a framework to guide the evolution of their strategies and management practices. Greater research is needed to refine the domains for policy and program implementers working to sustain HIV program delivery at scale.

Mansour, M., J. Mansour, and A. Swesy. 2010. Scaling up proven public health interventions through a locally owned and sustained leadership development programme in rural upper egypt. *Human Resources for Health* 8(1):1. http://www.human-resources-health.com/content/8/1/1

In 2002, the Egypt Ministry of Health and Population faced the challenge of improving access to and quality of services in rural Upper Egypt in the face of low morale among health workers and managers. From 1992 to 2000, the Ministry, with donor support, had succeeded in reducing the nationwide maternal mortality rate by 52%. Nevertheless, a gap remained between urban and rural areas. … Conclusions: When teams learn and apply empowering leadership and management practices, they can transform the way they work together and develop their own solutions to complex public health challenges. Committed health teams can use local resources to scale up effective public health interventions.

Marquez, L., S. Holschneider, E. Broughton, and S. Hiltebeitel. 2014. *Improving health care: The results and legacy of the USAID health care improvement project. Final report.* Published by the USAID Health Care Improvement Project. Bethesda, MD: University Research Co., LLC (URC). https://www.usaidassist.org/resources/improving-health-care-results-and-legacy-usaid-health-care-improvement-project

Massoud, M. R., and N. Mensah-Abrampah. 2014. A promising approach to scale up health care improvements in low-and middle-income countries: The wave-sequence spread approach and the concept of the slice of a system. *F1000Res* 3. http://f1000research.com/articles/3-100/v2

There are several examples of successes in improving health care. However, many of these remain limited to the sites at which they were originally developed. There are fewer examples of successful spread of the improvement more widely inside or outside the health systems within which they were developed. This article discusses the wave-sequence approach to spread or scale up, which enables take up of the improvement in a systematic and sequential way, using "spread agents" — people who participated in the original demonstration sites. The paper also discusses the concept of the "slice" of a system which is useful for thinking about spread and considers a phenomenon related to the rate of adoption which we have observed in this wave-sequence approach.

Pidufala, O. 2008. *Scaling up and aid effectiveness: Annotated bibliography.* Washington, D.C.: Wolfensohn Center for Development at Brookings Institution. http://www.brookings.edu/~/media/Research/Files/Papers/2008/10/scaling%20up%20aid%20linn/10_scaling_up_aid_linn_bibliography.PDF

USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project. 2014. *USAID ASSIST project annual performance monitoring report fy14. Performance period: October 1, 2013-September 30, 2014.* Published by USAID ASSIST Project. Bethesda, MD: University Research Co., LLC (URC). https://www.usaidassist.org/sites/assist/files/assist_semi-annual_performance_monitoring_report_body_fy14_full_ada.pdf

Victora, C. G., K. Hanson, J. Bryce, and J. P. Vaughan. Achieving universal coverage with health interventions. *The Lancet* 364(9444):1541-1548. http://www.sciencedirect.com/science/article/pii/S0140673604172796

Cost-effective public health interventions are not reaching developing country populations who need them. Programmes to deliver these interventions are too often patchy, low quality, inequitable, and short-lived. We review the challenges of going to scale—ie, building on known, effective interventions to achieve universal coverage. One challenge is to choose interventions consistent with the epidemiological profile of the population. A second is to plan for context-specific delivery mechanisms effective in going to scale, and to avoid uniform approaches. A third is to develop innovative delivery mechanisms that move incrementally along the vertical-to-horizontal axis as health systems gain capacity in service delivery. The availability of sufficient funds is essential, but constraints to reaching universal coverage go well beyond financial issues. Accurate estimates of resource requirements need a full understanding of the factors that limit intervention delivery. Sound decisions need to be made about the choice of delivery mechanisms, the sequence of action, and the pace at which services can be expanded. Strong health systems are required, and the time frames and funding cycles of national and international agencies are often unrealistically short.

WHO (World Health Organization). 2004. *An approach to rapid scale up: Using HIV/AIDS treatment and care as an example.* The 3 by 5 initiative. Geneva, Switzerland: World Health Organization. http://www.who.int/hiv/pub/prev_care/en/rapidscale_up.pdf?ua=1

Yang, A., P. E. Farmer, and A. M. McGahan. 2010. 'Sustainability' in global health. *Glob Public Health* 5(2):129-135. http://www.ncbi.nlm.nih.gov/pubmed/20213563

'Sustainability' has become a central criterion used by funders - including foundations, governmental agencies and international agencies - in evaluating public health programmes. The criterion became important as a result of frustration with discontinuities in the provision of care. As a result of its application, projects that involve building infrastructure, training or relatively narrow objectives tend to receive support. In this article, we argue for a reconceptualisation of sustainability criteria in light of the idea that health is an investment that is itself sustaining and sustainable, and for the abandonment of conceptualisations of sustainability that focus on the consumable medical interventions required to achieve health. The implication is a tailoring of the time horizon for creating value that reflects the challenges of achieving health in a community. We also argue that funders and coordinating bodies, rather than the specialised health providers that they support, are best positioned to develop integrated programmes of medical interventions to achieve truly sustainable health outcomes.

Guidance for Funders – Scaling Impact

Clark, C. H., C. W. Massarsky, T. Schweitzer Raben, and E. Worsham. 2012. *Scaling social impact: A literature toolkit for funders.* Growthy Philanthropy Network and Duke University. http://www.socialimpactexchange.org/sites/www.socialimpactexchange.org/files/Scaling%20Social%20Impact%20-%20A%20Literature%20Toolkit%20for%20Funders%20%28Final%29.pdf

Social Impact Exchange. *Knowledge center*. http://www.socialimpactexchange.org/exchange/knowledge-center

Massarsky, C. W., and J. F. Gillespie. 2013. The state of scaling social impact: Results of a national study of nonprofits. Social Impact Exchange and Veris Consulting. New York. http://www.socialimpactexchange.org/webfm_send/810

GEO (Grantmakers for Effective Organizations). 2011. *Reframing the conversation: A GEO briefing paper series on growing social impact*. http://www.scalingwhatworks.org/resources/scaling-what-works-publications/briefing-papers-series#what_do_we_mean

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———. 2013. *Pathways to grow impact.* Washington, D.C. http://www.geofunders.org/resource-library/all/record/a066000000AisaBAAR

———. 2014. *Smarter philanthropy for greater impact: Rethinking how grantmakers support scale.* Washington, D.C.: Grantmakers for Effective Organizations. http://www.scalingwhatworks.org/

———. 2014. *Stories of impact from the Social Innovation Fund.* Washington, D.C.: Grantmakers for Effective Organizations. http://docs.geofunders.org/?filename=sifimpactstories.pdf

Stanford Social Innovation Review. 2014. *Transformative scale blog series*.
http://www.ssireview.org/transformative_scale

Select blog entries

Jeff Bradach, Lessons from the transformative scale series
http://www.ssireview.org/transformative_scale/entry/lessons_from_the_transformative_scale_series

Michael Chu, The power of profit in advancing systemic change
http://www.ssireview.org/transformative_scale/entry/the_power_of_profit_in_advancing_systemic_change

Mark Cheng & Caroline Guyot, Moving ideas to the mainstream
http://www.ssireview.org/transformative_scale/entry/moving_ideas_to_the_mainstream

Risa Lavizzo-Mourey, Partnering with corporations for greater scale
http://www.ssireview.org/transformative_scale/entry/partnering_with_corporations_for_greater_scale

Bill Shore, Great Ideas and Great Execution Require Different Skills
http://www.ssireview.org/transformative_scale/entry/great_ideas_and_great_execution_require_different_skills

Kevin Hassey & Jordan Kassalow, VisionSpring aims to provide eyeglasses to millions
http://www.ssireview.org/transformative_scale/entry/great_ideas_and_great_execution_require_different_skills

Nancy Lublin & Aria Finger, Radical focus and driving demand for scale
http://www.ssireview.org/transformative_scale/entry/radical_focus_and_driving_demand_for_scale

Nicole L. Dubbs & Kerry Anne McGeary, Four ways to spread ideas
http://www.ssireview.org/blog/entry/four_ways_to_spread_ideas

Tobacco Control

CDC (Centers for Disease Control and Prevention). 2014. *Best practices for comprehensive tobacco control programs* Atlanta, GA: Centers for Disease Control and Prevention. http://www.cdc.gov/tobacco/stateandcommunity/best_practices/

Herndon, S., J. Martin, Tanha Patel, A. Houston Staples, and J. Swetlick. 2014. The impact of smoke-free legislation on population health in north carolina. *North Carolina Medical Journal* 75(6):422-428.Since the first Surgeon General's report documented the health impact of smoking 50 years ago, North Carolina has made much progress in reducing tobacco use. This article focuses on tobacco-related policies and legislation that have contributed to this progress and discusses measures that could be taken to further reduce tobacco use. http://www.ncmedicaljournal.com/archives/?75612

Lavinghouze, S. R., K. Snyder, and P. P. Rieker. 2014. The component model of infrastructure: A practical approach to understanding public health program infrastructure. *Am J Public Health* 104(8):e14-e24.Functioning program infrastructure is necessary for achieving public health outcomes. It is what supports program capacity, implementation, and sustainability. The public health program infrastructure model presented in this article is grounded in data from a broader evaluation of 18 state tobacco control programs and previous work. The newly developed Component Model of Infrastructure (CMI) addresses the limitations of a previous model and contains 5 core components (multilevel leadership, managed resources, engaged data, responsive plans and planning, networked partnerships) and 3 supporting components (strategic understanding, operations, contextual influences). The CMI is a practical, implementation-focused model applicable across public health programs, enabling linkages to capacity, sustainability, and outcome measurement. http://dx.doi.org/10.2105/AJPH.2014.302033

RWJF (Robert Wood Johnson Foundation). 2014. *Looking inwards research summary: Instructive stories of spread from RWJF's past experience.* Princeton, NJ: Robert Wood Johnson Foundation.

——. 2014. *Looking outwards research summary: Highlights from literature, bright spots from practice.* Princeton, NJ: Robert Wood Johnson Foundation.

——.2011. *The tobacco campaigns of the Robert Wood Johnson Foundation and collaborators, 1991-2010.* Princeton, NJ: Robert Wood Johnson Foundation. http://www.rwjf.org/en/research-publications/find-rwjf-research/2011/04/the-tobacco-campaigns-.htmlhttp://www.rwjf.org/content/dam/farm/reports/evaluations/2011/rwjf70005

Institute of Medicine

Hussey, P., R. Bankowitz, M. Dinneen, D. Kelleher, K. Matsuoka, J. McCannon, W. Shrank, and R. Saunders. 2013. *From pilots to practice: Speeding the movement of successful pilots to effective practice.* Washington, D.C.: Institute of Medicine. Discussion Paper. http://www.iom.edu/pilotstopractice

IOM (Institute of Medicine). 2014. *Building health workforce capacity through community-based health professional education: Workshop summary*. Edited by P. A. Cuff. Washington, DC: The National Academies Press. http://www.iom.edu/Reports/2014/BuildingHealthWorkforceCapacity.aspx

IOM and NRC (National Research Council). 2014. *Strategies for scaling effective family-focused preventive interventions to promote children's cognitive, affective, and behavioral health: Workshop summary*. Edited by M. Patlak. Washington, DC: The National Academies Press. http://www.iom.edu/Reports/2014/Strategies-for-Scaling-Effective-Family-Focused-Preventive-Interventions.aspx