Health in All Policies: A Start in Rhode Island

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ABSTRACT

In Rhode Island, health care access, whether measured as having a regular source of care or as having health insurance, is better than the U.S. average. However, health care access does not necessarily translate into better health outcomes. Rhode Island has not fared better than the rest of the nation in ending or decreasing health disparities across socioeconomic and racial demographics in spite of improved access to quality health insurance products. In June 2011, law RIGL 23-64.1 directed the establishment of a Commission of Heath Advocacy and Equity. It requires a cross-section of state agency and community members to focus on the social determinants of health, and prepare biennial reports with public participation. The law will serve to remind the government and the public that objectives for the well-being of the population are best achieved when all sectors include health as a key component of policy development.

KEYWORDS: social determinants of health; segregation; equity; health in all policies; health disparities

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INTRODUCTION

In Rhode Island, health care access, whether measured as having a regular source of care or as having health insurance, is better than the U.S. average.[1,2] (See trends, Table 1, Health care Coverage/Access to care). Rhode Island's Rite Care ranked among America's Best Medicaid Plans from 2005–2008.[3-5] America's Health Ranking 2010 ranked Rhode Island in the top 10 states as measured by access to care, overall satisfaction, prevention measures, and treatment outcomes. However, health care access does not necessarily translate into better health outcomes. Rhode Island ranks poorly on health indicators such as binge drinking, children in poverty, preventable hospitalizations, and cancer deaths.[6-8] Within the state in 2013,[9] Providence County followed by Kent County had the worst health outcomes. Bristol County ranked first. These rankings parallel the socioeconomic disparities of the state, with Providence County being the poorest and Bristol the wealthiest.

Rhode Island has not fared better than the rest of nation in ending or decreasing health disparities across socioeconomic and racial demographics in spite of improved access to quality health insurance products. On outcomes of preventable diseases such as coronary heart disease and diabetes, Rhode

Table 1. Health Care Coverage/Access to Care

Percent report No to the question: Do you have any kind of health care coverage?	General US Population		Hispanic		African American		Other	
	National (US) Median %	Rhode Island (RI) Median %	US%	RI%	US%	RI%	US%	RI%
1996 (CI)	12.9	10.5 (8.8-12.2)	27.3	N/A	16.9	9.1 (2.5-15.7)	14.5	N/A
2000	11.9	11.1 (9.7-12.5)	28.2	26.3 (19.7-32.9)	17.1	19.3 (10.9-27.7)	15	N/A
2003	14.5	11 (9.7-12.3)	35.1	31.6 (24.8-38.4)	18.7	15 (5.3-24.7)	19.1	16.2 (7.7-24.7)
2006	14.5	11.3 (9.8-12.8)	40.8	40.5 (33.0-48.0)	19.3	N/A	15.1	N/A
2010	15	12.3 (10.7-13.8)	30.4	36.9 (28.6-45.1)	20.5	N/A	16	13.2 (6.8-19.6)

CI = Confidence Interval
N/A = Not available if the unweighted sample size for the denominator was < 50 or the CI half width was > 10 for any cell, or if the state did not collect data for that calendar year.
Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data.* Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, [1996, 2000, 2003, 2006, 2010]

Island looked the same or worse than the rest of the nation (See Table 2 Health Status Trends) despite our better insurance access. These outcome indicators demonstrate that we cannot expect success in reducing health disparities if we limit our focus only to access to medical care, adding to the "considerable evidence that social and economic conditions – apart from access to and quality of medical care, which have undeniable importance – play a fundamental, powerful and pervasive role in the health of populations."[10,11]

Table 2. Health Status Trends[1]

Chronic Disease[2]	General US Population		Hispanic[3]		African American		Asian	
	US	Rhode Island (RI)	US	RI	US	RI	US	RI
Coronary Heart Disease								
2005	144	177	118	62	171	179	81	DNA[4]
2006	135	161	106	77	162	122	77	
2007	126	153	98	77	151	166	71	
Diabetes Related Death								
2005	77	77	93	45	132	162	58	DNA
2006	74	78	86	86	127	116	55	
2007	73	74	84	61	124	123	54	

[1] CDC Wonder Database for Healthy People 2010 age adjusted per 100,000 standard population

[2] Years and indicators chosen according to available comparable data to demonstrate trends.

[3] Health statistics tend to be better than the US Hispanic population. This is most probably related to a larger recent immigrant population resulting in the Latino Paradox. A good summary of this phenomenon is explained in the PBS episode 4 the documentary series Unnatural Causes: "Is Inequality Making Us Sick?" Variation in rates depend on place of origin, with Cubans fairing the best, next Puerto Ricans and Mexican American the worst - see CDC Wonder Data on Diabetes Related Deaths.

[4] DNA- Data have not been analyzed

Public health leaders have worked to reshape strategies to improve the health of communities and eliminate health disparities. A theoretical framework underlying these revised strategies is the Social Determinants of Health. The concepts of social determinants of health help us move away from the central clinical focus on individual patients. This framework allows us to consider the roles of physical, social and political environments in predicting the health of communities. Among major strategies drawn from the framework of the Social Determinants of Health is consideration of the health impact of policies, even though the policies may have been intended for a completely different purpose.

Scott Burris[12] states that research in social epidemiology has shown convincingly that population health is shaped by fundamental social conditions with consistent correlations across populations between health and various measures of social and economic status. Social arrangements account for an important fraction of population health disparities. However, it still remains difficult for many Americans (health care workers, individuals, and policy makers alike) to embrace the idea that an individual person is not in complete control of his or her own health. Lasker *et al* [13] discuss how the policy environment discourages or enables various organizations to interact. This work elaborates on problematical social and economic conditions to consider the infrastructure that reinforces these conditions and increases the resistance to change.

METHODS: USING MEASUREMENT TO CHANGE POLICY AND SHIFT THE DIALOGUE

In 2003, a coalition of multi-disciplinary academicians, public health officials, adult education practitioners, community-based organizations, minority business owners, and community members was formed to work on issues of health disparities and equity in Rhode Island. The work started with and included grounding in a conceptual framework for taking action. The initial premise was that how you see a problem drives how you create solutions and we agreed to work from an ecological and social determinants of health framework. From this approach, disparities in longevity and chronic disease burden among diverse communities can be correlated with societal inequities.

From an ecological approach with the aim to take action on health disparities, the coalition agreed that the usual socioeconomic measures such as income, poverty, education, access to health insurance, and access to health care are indicative but not sufficient to explain health disparities even when disaggregated for differing racial ethnic populations (Table 3 a, b and c Socio-Economic Status, page 33 and Graphs 1a–3b, Select Education Indicators, page 34). The cross-section analysis of the commonly used indicator, income, is based on hourly wages and does not account for other forms of assets such as wealth, eg. homeownership. Another commonly used indicator, education, is not sensitive to variations in quality of education. We considered other types of data analysis that might better capture forms of discrimination and chose segregation.

The addition of segregation indices to indicators of socioeconomic status helps expand our solution sets. Segregation measurement has been described by Massey and Denton[14,15] as having essentially five dimensions: unevenness/dissimilarity, exposure, centralization, concentration, and clustering, the definitions of which can be found in Iceland et al, U.S. Census Bureau, Series CENSR-3, Racial and Ethnic Residential Segregation in the United States: 1980–2000.[16] Why are segregation indices key to understanding social determinants of health in Rhode Island? It can expose the extreme isolation experienced by many racial and ethnic populations, better reflecting the institutional arrangements and the legacy of discrimination that continue today. Second, any one

Table 3a. Socio-Economic Status[1]								
	General Population		Hispanic		African American		Asian/Pacific	
Economic and Education Indicators	National (US)	Rhode Island (RI)	US	RI	US	RI	US	RI
Median household income[2]	$51,914 +/-89	$54,904 +/-645	$41,534 +/116	$33,679 +/-1,543	35,194 +/-104	$34,699 +/-2,436	$68,950 +/-349	$53,357 +/-4,292
Percent 25 and over	%	%	%	%	%	%	%	%
with less than 9th grade	6.2 +/-0.01	7.0 +/-0.03	23.1 +/-0.1	23.6 +/-1.7	5.6 +/-0.01	12.1 +/-1.4	8.3 +/-0.01	13.0 +/-2.0
9th to 12th grade, no diploma	8.7 +/0.01	9.4 +/-0.03	15.4 +/-0.1	16.3 +/-1.4	13.6 +/-0.01	12.7 +/-1.4	6.0 +/-0.01	8.0 +/-1.7
High School graduate or higher (includes equivalency)	85.0 +/0.01	83.7 +/-0.04	61.5 +/-0.2	60.8 +/-1.8	80.9 +/-0.1	75.2 +/-1.7	85.7 +/-0.1	79.0 +/-2.5

[1]source: U.S. Census FactFinder2 American Community Survey 2006 – 2010
[2] Large differences between Census 2000 and 2010 report of RI Asian Median Household Income at $36, 473 in 2000 and $53,357 in 2010 prompted a disaggregated analysis of Southeast Asian refugee population and varying Hispanic populations for this paper; see tables in Tables 3b and 3c.

Table 3b. Socio-Economic Status										
	Hispanic Population		Dominican		Mexican		Puerto Rican		Cuban	
Economic and Education Indicators	National (US)	Rhode Island (RI)	US	RI	US	RI	US	RI	US	RI
Median household income	$41,534 +/116	$33,679 +/-1,543	$28,612 +/-2,324	$28,612 +/-2,324	$40,588 +/-123	$37,565 +/5,088	$38,426 +/-410	$25,842 +/-4,819	$43,857 +/-582	$66,546 +/-39,675
Percent 25 and over with	%	%	%	%	%	%	%	%	%	%
less than 9th grade	23.1 +/-0.1	23.6 +/-1.7	21.4 +/-0.4	23.6 +/-2.4	27.4 +/-0.1	18.8 +/-4.7	11.4 +/-0.2	17.5 +/-3.0	12.9 +/-0.3	6.8 +/-5.7
9th to 12th grade, no diploma	15.4 +/-0.1	16.3 +/-1.4	14.0 +/-0.3	14.8 +/-2.4	17.2 +/-0.1	17.0 +/-4.6	15.2 +/-0.2	21.7 +/-2.8	11.1 +/-0.3	6.3 +/-5.8
High School graduate of higher (includes equivalency)	61.5 +/-0.2	60.1 +/-1.8	64.6 +/-0.5	61.5 +/-2.8	55.5 +/-0.2	64.1 +/-6.5	73.4 +/-0.2	60.7 +/-3.2	76.0 +/-0.3	86.9 +/-7.8

source: U.S. Census FactFinder2 American Community Survey 2006 – 2010

Table 3c. Socio-Economic Status										
	Asian Population		Cambodian		Laotian		Vietnamese		Hmong	
Economic and Education Indicators	National (US)	Rhode Island (RI)	US	RI	US	RI	US	RI	US	RI
Median household income	$68,950 +/-349	$53,357 +/-4,292	$49,870 +/-1,587	$42,397 +/-6,534	$55,119 +/-1,471	$55,357 +/-22,304	$55,132 +/-676	$52,039 +/-19,470	$46,634 +/-1,558	$85,294 +/-20,298
Percent 25 and over with	%	%	%	%	%	%	%	%	%	%
less than 9th grade	8.3 +/-0.01	13.0 +/-2.0	25.3 +/-0.9	34.7 +/-7.3	21.9 +/0.9	26.9 +/-8.6	15.0 +/-0.3	9.3 +/-7.4	31.8 +/1.4	30.0 +/-17.1
9th to 12th grade, no diploma	6.0 +/0.01	8.0 +/-1.7	11.9 +/-0.5	13.8 +/-5.3	11.9 +/-0.7	19.8 +/-6.5	13.4 +/-0.3	16.9 +/-13.1	6.0 +/-0.5	1.7 +/-3.2
High School graduate of higher (includes equivalency)	85.7 +/-0.1	79.0 +/-2.5	62.8 +/-09	51.4 +/-7.3	66.2 +/-0.9	53.3 +/-9.9	71.6 +/-0.4	73.7 +/-15.4	62.1 +/-1.5	68.3 +/-16.9

source: U.S. Census FactFinder2 American Community Survey 2006 – 2010

indicator of a high level of segregation (for most indices calculated as ≥ 0.6) has deleterious socioeconomic consequence. But as the research of Massey and Denton demonstrates, hypersegregation, which is the accumulation of the negative effects across dimensions, has a multiplicative impact in socioeconomic impact and correlates with poor health outcomes.[17] Table 4 (p 35) shows the R.I. residential segregation indices and demonstrates how hypersegregation exists across three dimensions for African Americans in Rhode Island, while Figure 1 (p 35) reveals aspects of isolation and clustering for racial/ethnic populations in Providence.

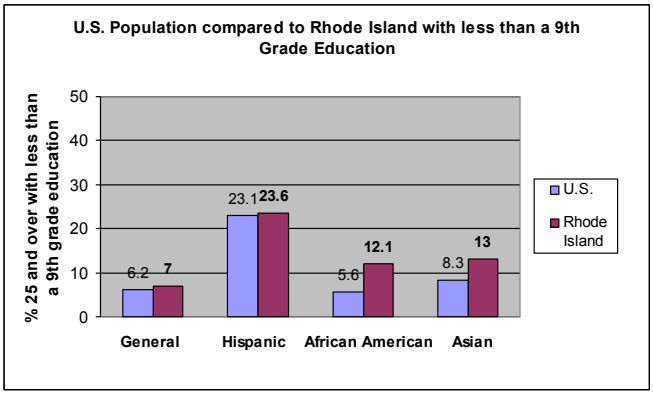
Lu Ann Aday and colleagues in *Reinventing Public Health: Policies and Practices for a Healthy Nation*[18] states, "to effectively improve population health and reduce health disparities, policymaking in a variety of domains must take into account policies that address the fundamental social, economic, and ecological determinants of health." Aday's proposed analytical framework is one which works at both macro and micro levels of policy. It provides tools to address the goal of integrated policy analysis, rather than serial or single policy analysis, which are less commonly integrated into public health policy and practice. In particular, it considers sustainable development, economic development, community development and human development. In addition, effectiveness, efficiency and equity criteria are used to assess the impacts of current and proposed policies on the health of populations.

From an ecological lens, it can be seen that as individuals, we may have more or less control and influence over our own social and physical environments and those of others. Individuals who are disenfranchised by income, education, social status, segregation, or disability may have even more limited capacities. We argue here that Aday's *variety* of domains should be taken seriously and include assessing and shaping

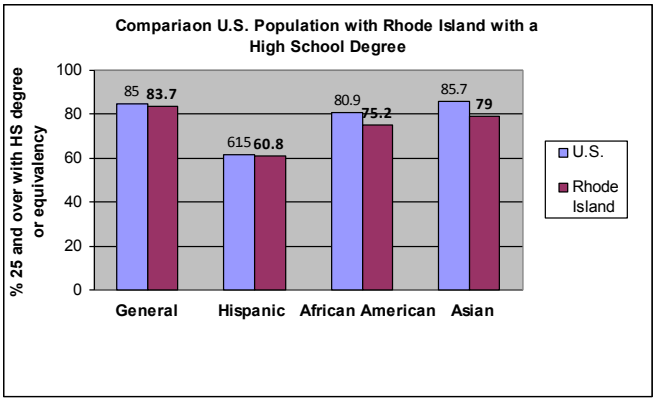
institutional policies to support healthiness and not only in governmental and political policies. We have the big work of assessing laws, regulations and governmental decisions, advocating for assessing health impacts and promoting governmental policies which improve community health. We also have the smaller policy decisions to consider, those in our own institutions, practices, and organizations.

The result of our approach led us to identify a number of areas of action to address equity; one of which was to address institutional policies through laws and regulations to guarantee sustained attention to the process of the social determinants of health demonstrated by the data for Rhode Island. The coalition worked with legislators to address the conditions that prevent Rhode Island from reducing health disparities. After a number of attempts to pass legislation to address the social determinants of health through the

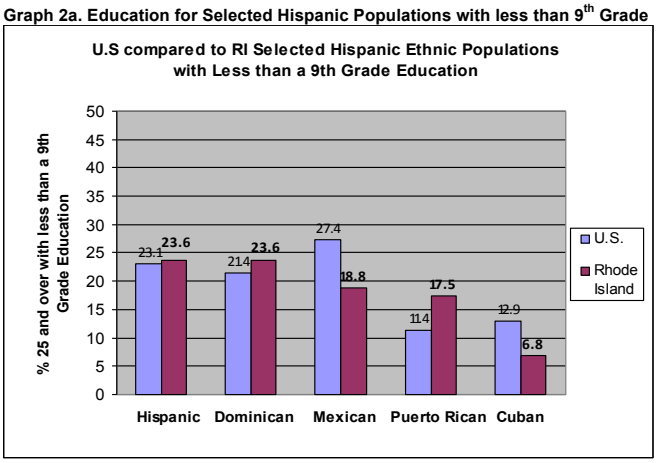
Graph 1a. Education for Crude Race/Ethnic Populations with less than 9th Grade



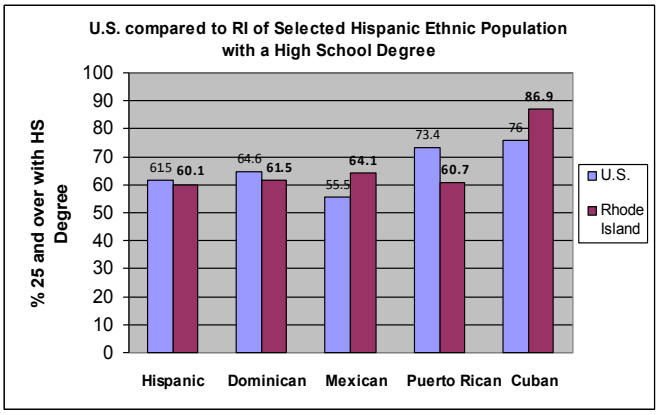
Graph 1b. Education for Crude Race/Ethnic Populations with HS Degree



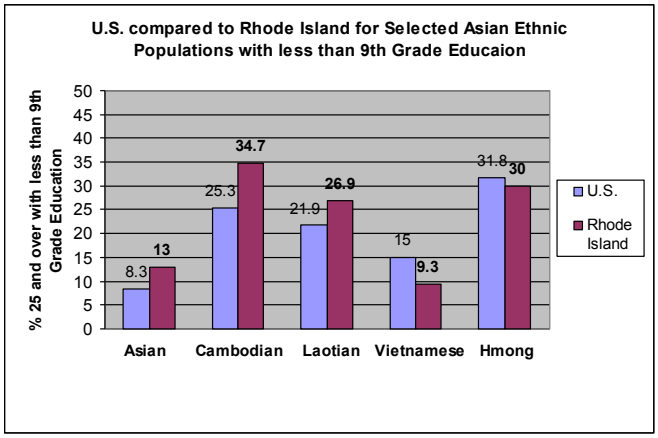
Graph 2a. Education for Selected Hispanic Populations with less than 9th Grade



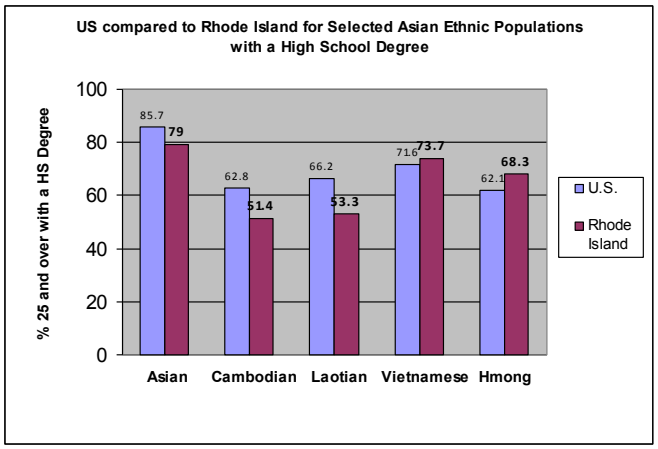
Graph 2b. Education for Selected Hispanic Populations with a HS Degree



Graph 3a. Education for Selected Asian Populations with less than 9th Grade



Graph 3b. Education for Selected Asian Populations with a HS Degree



introduction of sister bills, sponsored by Sen. Juan Pichardo and Rep. Donna Walsh, to create a Commission of Heath Advocacy and Equity, it passed and became law RIGL 23-64.1 in June 2011. This statute requires a commission to involve a cross-section of state agencies and community members to focus on the social determinants of health. The commission is responsible for selecting benchmarks and measurements for accountability on improving health disparities.

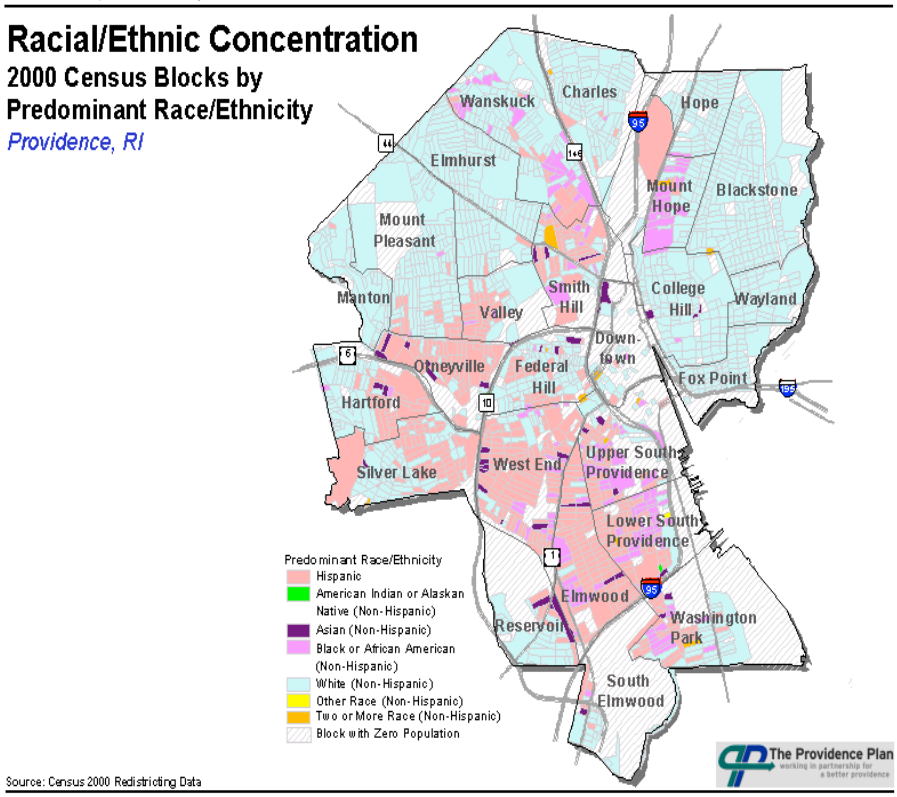
RIGL 23-64.1 requires the commission to prepare and present to the Governor and the General Assembly a disparities impact and evaluation report biennially, with significant public input prior to completion. This is a start, intended to keep the issues in front of the legislature and executive branch and to increase public involvement in scrutinizing the health impact of policy and law. In addition, public participation in the process can build more awareness and advocacy for addressing the social determinants of health disparities. It is a place for physicians and health practitioners to educate their patients to become active participants in the process of improving our communities' health.

Table 4. Residential Segregation Providence Metropolitan Area

Segregation Indices		Hispanic	African American	Asian/ Pacific	Native American
Uneveness: Dissimilarity Index (D)	*National Median*	0371	0.501	0.337	0.254
	Providence MSA Median	**0.676**	**0.600**	**0.437**	**0.408**
Exposure: Interaction Index (*xPY)		0.870	0.680	0.950	0.975
		0.571	**0.715**	**0.863**	**0.945**
Concentration: Relative Concentration Index (RCO)		0.422	0.646	0.522	0.131
		0.854	**0.802**	**0.560**	**0.280**
Centralization: Relative Centralization Index (RCE)		0.148	0.244	0.197	0.0585
		0.488	**0.479**	**0.292**	**0.216**
Clustering: Spatial Proximity Index (SP)		1.038	1.109	1.014	1.003
		1.271	**1.133**	**1.045**	**1.012**

Source: U.S. Census Bureau (2000), Housing and Household Economic Statistics Division; Providence-Fall River-Warwick, RI-MA MSA, most updated available

Figure 1. Map reflects residential racial/ethnic segregation



Policies may be as simple as how we schedule appointments to encourage access to primary care at an individual health center or office. They may be as complex as how we calculate poverty or define assets when determining eligibility for subsidies or how we determine who has completed high school. Zoning policies, siting decisions on locations of parks, density of fast food outlets or liquor stores are examples of community policies that can profoundly influence health of communities. Where store owners place candy and tobacco products, whether restaurants offer or highlight healthy options, whether we clear sidewalks or only parking lots, whether we allow smoking in multi-family housing are business decisions that contribute to healthy or unhealthy lifestyles.

Our attention to social determinants of health in our state is consistent with the work of Burris' and with Lasker's observation, as well as that of the World Health Organization.[11-13] It is also consistent with what is now being termed a Health in All Policies framework developed for the Adelaide Statement of 2010.[19] The statement is focused principally on governmental policies in democratic societies and asks to engage leaders and policy makers at all levels of government emphasizing that government objectives for the wellbeing of the population are best achieved when all sectors include health as a key component of policy development. Health in All Policies is a strategy for influencing the social determinants of health by taking account of the expected health impacts of policies as they are formed and pressing for adjustments that will improve the daily living conditions of populations experiencing health disparities. Structural constraints like segregation require institutionalized processes which essentially force cross-sector problem solving and attention to power imbalances. Only when we cast our policy discussion in broad terms will we recognize the changes required to improve health.

CONCLUSION

The creation of law RIGL 23-64 coincided with a series of Institute of Medicine reports, *For the Public's Health*.[20-22] The first, *Role of Measurement in Action and Accountability*,[20] noted that the United States spends more on health than other nations – almost $2.5 trillion in 2009 – and yet scores lower than other wealthy nations on life expectancy, infant mortality, and other indicators of population health. The second, *Revitalizing Law and Policy to Meet New Challenges*,[21] notes that public policy can be one of the most effective approaches to protecting and improving the health of the population and asks government and private sector stakeholders to consider health in a wide range of policies and to evaluate the health effects and costs of major legislation. The final report, *Investing in a Healthier Future*,[22] asks for the reallocation of health dollars and new sources of funds to strengthen the nation's public health capacity. In Rhode Island, the law asks for the use of a social determinants of health framework, to use a cross-sector approach to evaluate health disparities and to report progress on benchmarks for measurement and accountability. It is a start to continue to develop a clearer look at the social determinants of health and develop greater capacity to do prospective Health Impact Assessments with the goal to advance a Health in All Policies approach.

For up to date information about the Rhode Island Health Advocacy and Equity Commission attend their meetings that are open to the public, see the schedule here: http://sos.ri.gov/documents/publicinfo/omdocs/notices/6064/2012/134533.pdf

Or contact them for more information on joining the Commission: http://www.health.ri.gov/partners/commissions/healthadvocacyandequity/index.php

Acknowledgements

Many thanks to Senator Juan Pichardo and Representative Donna Walsh for the legislation to create the Commission for Health Advocacy and Equity. Also, many thanks to the coalition – the Transcultural Community Health Initiative, Ocean State Action and many others – who advocated over the years for the legislation.

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Disclosures

There is no potential conflict of interests for either of the authors.

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