

# PACE EH Post Project Assessment of Quality of Life Changes in a Florida Community Related to Infrastructure Improvements

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## Abstract

The Indian River county health department, environmental health division (IRCHD EH) in Florida implemented the Protocol for Assessing Community Excellence in Environmental Health (PACE EH) in the low-income community of West Wabasso, Florida. Over two and a half years, IRCHD EH worked with the community and various governmental agencies to bring much-needed improvements to the area. At the end of the two and a half years, a survey was conducted to discover if the residents' quality of life had increased due to the community's improvements. The survey results yielded high satisfaction rates among residents. The general response was that their feelings of safety and overall well-being-attributed to infrastructure improvements in their community-had increased significantly. An unforeseen benefit realized by all parties involved was a renewed trust in government. The majority of surveyed residents (91%) felt that governmental agencies were better able to respond to their issues.

## Introduction

Redefining public health and urban planning is an especially important issue in Florida, where continued and unprecedented growth is adding pressure to its schools, highways, water supplies, communities, natural environments, and open space. While urban planners work to support the community and infrastructural needs of a growing population of over 18 million, public health officials have worked to offset rising healthcare costs and reported increases in cases of asthma, obesity, diabetes, and mental illness. An emerging movement focuses on public health reengaging with its urban planning roots to highlight and understand the links between land use and health. Public health of-

ficials and urban planners are responsible for more than just ensuring that communities are habitable; they need to ensure communities are well designed, well built, attractive, and functional for all people who live, work, learn, and play in them (Frumkin, 2005).

Working from its historical involvement in both land use and health through drinking water protection and on-site sewage oversight, the Florida Department of Health's division of environmental health began a process in 2002 to adopt and use the National Association of County and City Health Official's (NACCHO) Protocol for Assessing Community Excellence in Environmental Health (PACE EH) (NACCHO & CDC,

2000). Results from the pilot projects supported a strong need to refocus public health and assess the relationship to the built environment. The process addressed community needs not captured through divergent programmatic and funding structures of state and local health and planning agencies.

In January 2004, Florida Department of Health's Indian River County Health Department, environmental health division (IRCHD EH) began implementing the PACE EH in the community of West Wabasso (NACCHO & CDC, 2000; NACCHO & CDC, 2002). This neighborhood of approximately 350 low-income minority residents is an island of poverty located in a very affluent county. Prior to implementation of PACE EH, Henry Stephens of the *Vero Beach Press Journal* described the community as "being off the beaten path, where the roads are not paved, don't even follow grids, and instead meander among the houses. There are no sidewalks or streetlights. There are no county water connections, so residents have wells, many of which flow with rust-colored water (Stephens, 2004)."

As part of the PACE EH process, an environmental health assessment was conducted in March and April 2004 by IRCHD EH to discover what issues West Wabasso residents identified within their community. The results of the assessment, including all quantitative and qualitative evidence regarding community issues, the current status of these issues, and suggested solutions were presented to the residents. Over a series of

meetings, issues were discussed in detail and priorities identified for taking immediate action to remedy problem areas.

Many of the identified issues did not fall within the traditional definition of "environmental health," but nonetheless they affected the health of the community. The top five environmental health issues identified were lack of housing, safety from drug trafficking, street lighting, access to safe drinking water, and septic failures or lack of access to sewer. Partnerships were subsequently created with the director of community development, the county administrator, director of public works, county commissioners, and the sheriff of Indian River county to address identified issues.

In order to discuss identified issues in a meaningful way and to produce action plans which would yield solutions, a steering committee comprised of individuals from private sectors, government, and the community was formed. Monthly steering committee meetings produced detailed action plans aimed at solving identified issues. In almost every case, an applicable county department was part of the action plan developed by the steering committee. As the committee began efforts to set action plans in motion, all parties involved were encouraged by agency partnerships that formed and by the number of county officials, such as county department directors, administrators, and commissioners, who attended monthly community and steering committee meetings. The combination of government officials attending the community meetings and a one-time tour of the area by officials that included a Florida legislator's aide was instrumental in realizing physical results such as the installation of streetlights, sidewalks, exercise equipment, a walking trail, potable water, and functioning septic systems.

All parties involved in the PACE EH project learned that when a community identifies infrastructure as a problem, the solution is a holistic one that begins with local planners and health officials shaking hands. If this partnership can be strengthened, results will be realized because the validity can be established by both agencies. By discovering this important insight through IRCHD EH's implementation of the PACE EH methodology, the following improvements have been brought to West Wabasso: removal of abandoned homes; establishment of bus routes; installation of streetlights, new septic systems, water mains, and connections; construction of new homes and sidewalks and repair of existing homes; and improvements to parks. The initial \$30,000 grant provided by the Florida Department of

Health to begin the PACE EH process in West Wabasso yielded over \$1.5 million worth of improvements to the community.

The results of the PACE EH project led us to examine closely the way we approach land use planning as it relates to public health. It is possible to conceptualize and see the positive reactions West Wabasso residents had to the improvement in their community. IRCHD EH, however, wanted to gauge the overall effectiveness of the PACE EH project to determine if the residents' quality of life had increased due to the community improvements. As a result, a survey was executed to measure not only the qualitative value of improvements made to West Wabasso, but also to quantify the results of two and a half years of PACE EH involvement.

## Methods

IRCHD EH went door-to-door in West Wabasso soliciting participation in the PACE EH project assessment survey. The goal was to survey the entire adult (18 years and older) community. The survey was designed with the assistance of NACCHO's 2002 book, *PACE EH in Practice*, and asked respondents two types of questions in addition to establishing their age, gender, and amount of time lived in West Wabasso. The first section of the survey contained seven questions that asked if respondents felt their community had changed over the past two years in relation to specific issues. Respondents were provided the following choices: *improved, no change, worsened, or not sure*. The next section contained eight questions which asked respondents about their quality of life now as compared to two years ago. Respondents were provided the following choices: *strongly agree, agree, disagree, or not applicable*. Frequencies and percentiles were calculated for each answer chosen.

The demographic question which asked respondents the length of time they lived in the community was worded with overlapping time intervals, namely: 0–5 years, 5–10 years, 10–15 years, 15–20 years, 20–25 years, and 25 years or more. Analysis performed using this variable would be inaccurate; therefore, this variable was not utilized in the analysis.

All statistical analyses were performed with SAS version 9.1 (SAS Institute Inc., Cary, North Carolina). Analysis methods were drawn from the work of Lehtonen and Pahkinen (1994). The Chi-square goodness of fit test, with an alpha level of .05 corresponding to a critical value equal to 9.49, was utilized to determine if the survey population represented West Wabasso.

For questions addressing quality of life issues, the *strongly agree* and *agree* responses were combined into one category called *agreed* since there was no statistically significant difference between respondents who answered *strongly agree* and *agree* as determined by *t*-tests (results not shown).

To determine if results of the seven community improvement questions or the eight quality of life questions differed by age group or gender, the row mean score difference test and Chi-square test, when appropriate, were performed. The relationships between six quality of life questions and related community improvement questions (Table 1) were assessed using generalized logic models. The quality of life questions were binary (*agree* or *disagree*), while the community improvement questions had three categories (*improved, no change, worsened*) with the comparison group being *no change*. The community improvement questions were grouped into five categories: safety issues, outdoor activities, neighborhood appearance, drinking water and septic issues, and all seven community improvement questions. The final results were presented as odds ratios (OR) with 95 percent confidence limits (95% CI). Only statistically significant results were presented.

## Results

### Demographics

A total of 243 individuals completed the West Wabasso PACE project assessment survey, with 66% of those respondents having lived in the community for 25 years or more. Seventy-five percent of survey respondents were between the ages of 25 and 64 years, and 64% of respondents were female.

Approximately 93% of West Wabasso residents estimated from the 2000 census (Figure 1) participated in the survey. The proportion of male and female survey respondents was approximately the same as the proportion of males and females in the 2000 census estimation of the West Wabasso population ( $\chi^2 = 7.09, p = .0078$ ). The distribution of respondents by age was different from the 2000 census estimation of the West Wabasso population distribution by age ( $\chi^2 = 14.68, p = .005$ ).

The response rate for each question in the survey ranged from 89% to 99.6%. The median number of missing responses for the seven community improvement questions was four. The median number of missing responses for the eight quality of life questions was seven. The median number of missing responses for the three demographics questions was 18.

# TABLE 1

## Survey Questions Used to Determine Association Between Improved Quality of Life and Improvements Made to the Community

Community improvement questions related to safety		Quality of life question
Demolishing abandoned houses and/or removing abandoned cars	vs.	Because of improvements to my community such as streetlights and demolished abandoned homes, I feel safer now than I did 2 years ago.
Providing a bus route for transportation		
Providing high-quality police service		
Having streetlights installed		
Creating safe places to walk and exercise outdoors		
Community improvement questions related to outdoor activities		Quality of life question
Having streetlights installed	vs.	Because of the newly installed streetlights, park exercise equipment, and sidewalks, I spend more time exercising outside than I did 2 years ago.
Creating safe places to walk and exercise outdoors		
Community improvement questions related to neighborhood appearance		Quality of life question
Demolishing abandoned houses and/or removing abandoned cars	vs.	The improved appearance of my community gives me a greater sense of well-being. <i>(Survey question has been paraphrased for this paper.)</i>
Having streetlights installed		
Community improvement questions related to drinking water and septic issues		Quality of life question
Having access to improved drinking water	vs.	My children miss fewer school days due to illness than 2 years ago.
Providing septic system improvements		
All community improvement questions		Quality of life question
Demolishing abandoned houses and/or removing abandoned cars	vs.	The improvements to my community have positively affected my mental and physical health.
Providing a bus route for transportation		
Having access to improved drinking water		
Providing high-quality police service		
Having streetlights installed		
Providing septic system improvements		
Creating safe places to walk and exercise outdoors		
All community improvement questions		Quality of life question
Demolishing abandoned houses and/or removing abandoned cars	vs.	My community has experience an improvement in the quality of life for the residents who have lived there over the past 2 years.
Providing a bus route for transportation		
Having access to improved drinking water		
Providing high-quality police service		
Having streetlights installed		
Providing septic system improvements		
Creating safe places to walk and exercise outdoors		

### Descriptive Statistics: Community Improvement Questions

The majority of survey respondents noticed improvements over the previous two years about all the issues asked in the community improvement questions. The highest positive response rate was for the provision of bus routes for transportation (82%). The provision of high-quality police service (59%) received the lowest positive response rate. The frequency and percentiles by question choice

for each community improvement question are presented in Table 2.

### Descriptive Statistics: Quality of Life Questions

The majority of survey respondents provided a positive response to all the quality of life questions. The highest positive response was for a question on whether the changed appearance of the community gave the respondent a greater sense of well-being than pre-

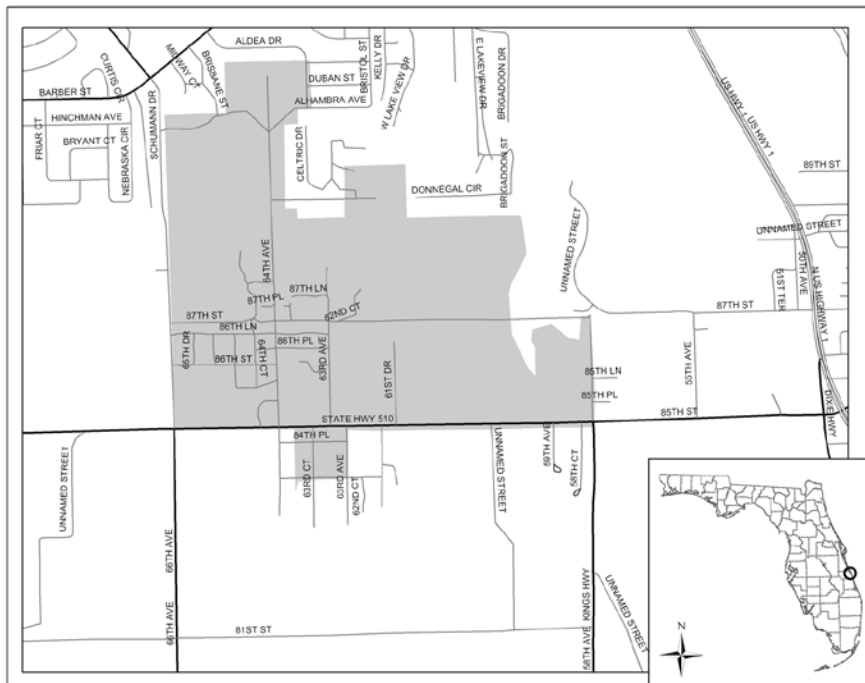
viously (94%). Whether the respondent felt their children missed fewer school days due to illness now compared to two years earlier received the lowest positive response (54%). The frequency and percentiles by question choice for each quality of life question are presented in Table 3.

### Stratification by Demographics: Gender

The seven community improvement questions by respondent choice had no statistically sig-

# FIGURE 1

Map of Indian River PACE EH Project Area, Wabasso West (2004–2006)



nificant difference between male and female responses. All but one of the quality of life questions had no statistically significant difference between male and female responses by respondent choice. Men were more likely than women to answer positively when asked if they felt their children had missed fewer school days due to illness now than two years earlier compared to those men and women who answered *not applicable* ( $OR = 2.16$ ;  $95\% CI = 1.17, 3.99$ ).

### Stratification by Demographics: Age of Respondent

The respondent's age affected the answer to two issues referred to in the community improvement questions. When compared to the younger age group (25 to 44 years), respondents aged 45 to 64 indicated that the number and placement of streetlight installation had improved, as opposed to no change, over the past two years ( $OR = 3.19$ ;  $95\% CI = 1.17, 8.70$ ). Respondents aged 45 to 64 were more likely than respondents aged 25 to 44 to indicate that the creation of safe places to walk and exercise outdoors had improved over the past two years compared to respondents in these two age groups who said the situation had not changed ( $OR = 3.65$ ;  $95\% CI = 1.55, 8.61$ ).

Age was associated with only two quality of life questions. Respondents aged 45 to 64 were more likely than respondents aged 18 to 24 to respond positively when asked if they thought they spent more time exercising outdoors now than two years ago due to newly installed streetlights, park exercise equipment, and sidewalks compared to individuals in the same age groups who disagreed with the above statement ( $OR = 5.59$ ;  $95\% CI = 1.10, 28.33$ ). Younger respondents were more likely to agree to answer *not applicable* when asked if their children missed fewer school days due to illness than two years earlier: respondents aged 18 to 24 vs. respondents aged 65 and older ( $OR = 5.04$ ;  $95\% CI = 1.13, 25.74$ ); respondents aged 25 to 44 vs. respondents aged 45 to 64 ( $OR = 2.98$ ;  $95\% CI = 1.38, 6.42$ ); and respondents aged 25 to 44 vs. respondents aged 65 and older ( $OR = 6.42$ ;  $95\% CI = 2.48, 16.63$ ).

### Relationships Between Quality of Life Questions and Community Improvement Questions

Forty-three percent of survey respondents indicated that improvement was made in all the community improvement issues related

to safety (five issues). Of these respondents, 99% also agreed when asked if they felt safer now than they did two years ago. All but one (providing a bus route) of the five issues, when examined separately, was statistically significant. Respondents were more likely to indicate feeling safer now compared to two years ago if they also indicated the following issues had improved (vs. no change): removal or demolition of abandoned cars and houses ( $OR = 14.83$ ;  $95\% CI = 4.88, 45.13$ ); provision of high-quality police service ( $OR = 5.4$ ;  $95\% CI = 1.72, 16.94$ ); installation of streetlights ( $OR = 4.78$ ;  $95\% CI = 1.44, 15.86$ ); or the creation of safe places to walk or exercise outdoors ( $OR = 8.62$ ;  $95\% CI = 3.09, 24.06$ ).

Sixty-three percent of survey respondents indicated that improvements were made on streetlight installation and the creation of safe places to walk and exercise outdoors, which are both community improvement issues related to outdoor activities. Of these respondents, 95% provided a positive response when asked if they spent more time exercising outside than two years ago. When the issues related to outdoor activities were examined separately, respondents were more likely to exercise outdoors now compared to two years ago if they also indicated that the following issues had improved (vs. no change): installation of streetlights ( $OR = 18.33$ ;  $95\% CI = 4.22, 79.64$ ) or the creation of safe places to walk or exercise outdoors ( $OR = 14.18$ ;  $95\% CI = 3.94, 51.03$ ).

Sixty-eight percent of survey respondents indicated that neighborhood appearance, i.e., installation of streetlights or demolition of abandoned buildings and removal of abandoned cars, had improved. Of these respondents, 97% responded positively when asked if the improved appearance of their community gave them a greater sense of well-being. When examined separately, there was no statistically significant difference when respondents who agreed were compared to those who disagreed for either issue related to neighborhood appearance.

Sixty percent of survey respondents said that improvements were made to both drinking water access and the provision of septic system repairs. Of these respondents, 62% provided a positive response when asked if their children missed fewer school days due to illness now compared to two years ago. When the issues of improved drinking water and septic system repairs were examined separately, there was no statistically significant difference

**TABLE 2****Frequencies and Percentiles by Response to Questions Related to Community Improvements**

Community Improvement Questions	Improved		No Change		Worsened		Not Sure	
	Count	%	Count	%	Count	%	Count	%
Demolishing abandoned houses and/or removing abandoned cars	187	77.0	32	13.2	5	2.1	18	7.4
Providing a bus route for transportation	198	81.5	26	10.7	3	1.2	13	5.3
Having access to improved drinking water	186	76.5	34	14.0	12	4.9	10	4.1
Providing high-quality police service	144	59.3	57	23.5	17	7.0	19	7.8
Having streetlights installed	189	77.8	30	12.3	13	5.3	7	2.9
Providing septic system improvements	158	65.0	48	19.8	7	2.9	23	9.5
Creating safe places to walk and exercise outdoors	171	70.4	42	17.3	9	3.7	11	4.5

when respondents who agreed were compared to those who disagreed for either issue.

Thirty-eight percent of survey respondents indicated that improvement was made in all seven community improvement issues. Of these respondents, 99% responded positively when asked if improvements in their community positively affected their mental and physical health. All but three of the seven community improvement issues, when examined separately, were significantly associated with respondents' increased mental and physical health. Respondents were more likely to feel that the community improvements had positively affected their mental and physical health if they also indicated that the following issues had improved (vs. no change): removal or demolition of abandoned cars and buildings ( $OR = 6.29$ ; 95%  $CI = 1.57, 25.20$ ); provision of a bus route ( $OR = 4.82$ ; 95%  $CI = 1.30, 17.83$ ); access to improved drinking water ( $OR = 8.4$ ; 95%  $CI = 2.38, 29.66$ ); or provision of high-quality police service ( $OR = 10.90$ ; 95%  $CI = 2.18, 54.39$ ).

Of the respondents who indicated improvements had been made in all seven community issues, 98% responded positively when asked if their community had experienced quality of life improvement for the residents over the past two years. When examined separately, there was a significant difference for three of the seven community improvement issues associated with residents' improved quality of life. Respondents were more likely to feel that the West Wabasso residents' quality of life had improved over the past two years if they also answered *improved* (vs. *no change*) when asked about the removal or demolition of abandoned cars and houses ( $OR =$

$5.01$ ; 95%  $CI = 1.27, 19.83$ ); the installation of streetlights ( $OR = 5.16$ ; 95%  $CI = 1.09, 24.42$ ); or the creation of safe places to walk or exercise outdoors ( $OR = 28.55$ ; 95%  $CI = 3.33, 245.06$ ).

### Discussion

The PACE EH project is designed to help assess the environmental health needs of a community and then facilitate the improvement of its overall appearance and design through collaboration with other governmental agencies and nonprofit organizations. While this area of public health is relatively new, studies have indicated that the appearance and overall design of a community affect the physical and mental health of the residents (Leventhal & Brooks-Gunn, 2003; Srinivasan, O'Fallon, & Dearry, 2003). IRCHD EH quantified, through the findings of this survey, that the improvements to the appearance and design of West Wabasso had indeed enhanced the life quality for the vast majority of the surveyed population regardless of gender or age.

Out of the seven community improvement issues addressed by PACE EH, the issue of providing bus routes for transportation was perceived by the community as the largest improvement (80%) while the issue of providing high-quality police service had the smallest positive impact (57%). It is clear that respondents felt their quality of life had improved over the past two years due to changes in their community. While statistically significant, the wide confidence intervals for the reported odds ratios encourage caution when estimating the magnitude of this association. The community improvement issues which appear to have made the most difference in

the respondents' improved quality of life are

- the removal or demolition of abandoned cars and houses,
- the creation of safe places to walk and exercise outdoors,
- the installation of streetlights, and
- the provision of high-quality police service.

The results of the relationships between six quality of life questions and related community improvement questions (Table 1) were reported only for those respondents who indicated that the community improvement issues had improved compared to those who answered *no change*. It was found that either (a) no statistically significant difference existed between respondents who indicated that the community improvement issues had worsened compared to those who answered *no change*, or (b) that the frequency of respondents who answered *worsened* was too low for analysis. It would appear that across the board, respondents did not feel that the PACE EH project had been detrimental to their quality of life. At worst, they indicated that nothing had changed.

The only statistically significant difference by gender was for one of the quality of life questions. Women were more likely than men to mark *not applicable* when asked if their children missed fewer school days due to illness. In effect, the survey population contained a greater number of women without children than men without children. This may have been caused by a self-selection bias for men; men with children may have been more likely to answer the survey than men without children. This same self-selection bias does not appear to be in effect for women. An alternate explanation is that West Wabasso may have a

**TABLE 3****Frequencies and Percentiles by Response to Questions Related to Improved Quality of Life**

Quality of Life Questions	Agree		Disagree		Not Applicable	
	Count	%	Count	%	Count	%
Because of improvements to my community, I feel safer now than I did 2 years ago.	212	87.2	22	9.1	8	3.3
Because of the newly installed streetlights, park exercise equipment, and sidewalks, I spend more time exercising outside than I did 2 years ago.	195	80.2	16	6.6	24	9.9
My children miss fewer school days due to illness than 2 years ago.	131	53.9	16	6.6	83	34.2
I believe better water quality and new or repaired septic systems have the potential to improve my family's health.	225	92.6	4	1.6	7	2.9
The improved appearance of my community gives me a greater sense of well-being. (Survey question has been paraphrased for this paper.)	228	93.8	8	3.3	4	1.6
The improvements to my community have positively affected my mental and physical health.	209	86.0	13	5.3	14	5.8
I feel that government agencies are better able to respond to my community's issues today as compared to 2 years ago.	221	90.9	12	4.9	8	3.3
My community has experienced an improvement in the quality of life for the residents who live there over the past 2 years.	215	88.5	9	3.7	7	2.9

greater number of women without children than men without children, and the survey accurately represented this community.

While some statistical differences in the survey questions by age group were reported, nothing indicated that younger respondents were more or less likely than older respondents to have answered the survey questions in a particular way (e.g., *improved* vs. *no change* or *agree* vs. *disagree*). The only discrepancy was for the quality of life question, in which respondents were asked about their children's health. Older respondents were more likely to mark *not applicable* than younger respondents. Due to the fact that older respondents are less likely to have school-aged children than younger respondents, it is likely that older residents were responsible for most of the *not applicable* responses.

It is important to note the possibility of selection bias when generalizing the results of the survey to the whole West Wabasso community. While the survey captured approximately 93% of West Wabasso as estimated from the 2000 census, it is unclear if those surveyed are a representative sample of the entire population. The survey was representative by gender, indicating that the distribution of men and women in the 2000 census estimation of the West Wabasso population and the survey population were equivalent. However, the age

group distributions in the sample population and the 2000 census estimation of the West Wabasso population were not equivalent. The data used to estimate the West Wabasso population was from the 2000 census and therefore six years old at time of analysis. Twenty more individuals aged 45 to 64 were surveyed than the census reported living in the area in 2000. Individuals who provided their age for the 2000 census may have moved to a different age bracket since the census was conducted, changing the age distribution of the population. In addition, the population of Indian River county overall has increased by 15.1% from the year 2000 to the year 2005 (Office of Economic and Demographic Research, Florida Legislature, 2005). Without an accurate estimation of the West Wabasso population, it is impossible to assess the internal validity of the survey in relation to selection bias when generalizing the results to the whole West Wabasso community.

A pre-survey was not conducted to assess the West Wabasso residents' quality of life before improvements were made. The results of this survey are subject to recall bias—how well respondents remembered their quality of life, including activity levels, health of their family, and feelings of safety. A pre-survey would have also provided a more accurate estimation of the community's population and demographics.

## Conclusion

The West Wabasso PACE EH project was the first to be evaluated in the state of Florida. The project continues to evolve as the development of long-term plans for establishing a sewer system and the provision of high-quality police services are ongoing. We learned several lessons; most importantly, to make sure the program evaluation tool is designed upfront and, if possible, to administer questionnaires both before and after the completion of the project. It is obvious through this survey, however, that the residents feel the changes made to West Wabasso through the PACE EH project have enhanced their community and positively affected their well-being. Health departments might consider conducting community assessments as a routine part of business in order to capture broader public health issues and match public health outcomes to land use planning. 🐾

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### President's Message

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As this issue goes to print, the environmental health marketing committee is still in the process of developing modes, methods, and recommendations on ways to mainstream our profession. Concepts in progress include educational sessions at the AEC & Exhibition in Tucson, a dedicated environmental health marketing Web site, an environmental health profession logo, and other innovations. However, it is evident that there is so much more that needs to be accomplished to market our profession and ourselves. How do we meet our desired goal? Marketing of the environmental health profession is not just a task for a small group of dedicated environmental health volunteers, and it is not a task that can be accomplished in just a year. We can take small steps toward our goal, but this is a much larger task.

We are specialists in various areas of environmental health, and we have learned when to reach out to other colleagues or subject-matter experts to provide advice and assistance on a particular problem or challenge. Conversely, as experts in environmental health, we can become frustrated when others outside our profession claim to be environmental health experts. With a task as huge as marketing the environmental health profession, we should be reaching out to the mix of marketing professionals who know *how* to market, and who can incorporate a whole host of specialist disciplines such as market research, brand management, advertising, promotions, and public relations into a full scale environmental health marketing campaign. We are not the only profession to

face this challenge. Perhaps one of the best professional campaigns, Johnson & Johnson's Discover Nursing campaign ([www.discovernursing.com](http://www.discovernursing.com)), includes commercials, ads, free career-related promotional items, statistics, and program and scholarship information. Or consider Pfizer's free public health publications ([www.pfizer-publichealth.com/publications.aspx](http://www.pfizer-publichealth.com/publications.aspx)): *The Faces of Public Health*, *Milestones in Public Health*, and *Advancing Healthy Populations: The Pfizer Guide to Careers in Public Health*. Clearly, these professional awareness campaigns were accomplished with the input of marketing professionals. Our profession would benefit greatly if we could mimic the framework of these campaigns.

NEHA shouldn't be in this alone. Isn't it time to establish a national environmental health marketing collaborative to promote partnerships between associations, local and national government, academia, public interest groups, and industry to brainstorm, finance, and leverage resources, and to market and foster the growth and the visibility of our profession?

Some of the framework already exists. The Protocol for Assessing Community Excellence in Environmental Health (PACE EH) ([www.cdc.gov/nceh/ehs/PIB/PACE.htm](http://www.cdc.gov/nceh/ehs/PIB/PACE.htm)) is an innovative tool to engage the public's involvement in environmental health, collect necessary and relevant information pertaining to community environmental health status, rank issues, and prioritize environmental health program activities. PACE EH calls for an unprecedented commitment to community collaboration and involvement—areas that are continually identified as essential to the viability of the environmental health profession. Collectively—and individually—it is our responsibility to the

environment, our constituents, our profession, and ourselves to promote what we do.

It's not so difficult to share our passions and roles in environmental health with others. Real-time is the ultimate marketing tool. Each one of us should have ready a 15-second "sound bite" to bring out in conversations in the elevator, on the bus, standing on line at the grocery store, etc. We should certainly share this with our families so that our mothers, spouses, and children can understand what we do—and be proud.

Striving to establish recognition for this profession is essential for the continued success of our current work and the future of the environment we are working to protect. It is our responsibility to educate others on what we do and the importance of the environmental health profession. NEHA must continue to make national environmental health marketing inroads, as each member must continue to strive for a more local environmental health awareness. Together we need to continue to promote who we are, what we do, and how our experience and credentials ensure the very environment that is essential to our lives.

Success is almost always a collaborative enterprise, bringing people together to solve complex problems. We should look at environmental health marketing, like we do many of our undertakings, not as a problem, but as an environmental challenge we have the expertise to abate. 🐾

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