



Advancing Inland HEALTH

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POSTER PRESENTATION

Building a healthy Riverside County through city and regional planning.

Presented February 12, 2014 at P21: Advancing Prevention in the 21st Century, Commitment to Action 2014, Sacramento, CA.

Miguel Vazquez, AICP *Wendy Hetherington, MPH * Susan Harrington, MS, RD *Michael Osur, MBA

Background. The County of Riverside has taken bold steps to improve health and plan for the future with the community's well-being in mind. The County Board of Supervisors adopted the Healthy County Resolution in April 2011 which calls for interdepartmental collaboration to improve health outcomes. Representative of the challenges health advocates face in Riverside County includes being ranked 54th out of 56 counties for its physical environment conducive to health, 64.1% of adults being overweight or obese, and 24.4% of teens being overweight or obese.

Objectives. The County of Riverside's CEO, Jay Orr, has embraced health as one of his three goals to make Riverside County the best place to live in America ("to improve health and promote

livable communities through partnerships, policies, systems and initiatives"). The Healthy Riverside County Initiative guides interventions intended to improve or create new policies to foster environments conducive to healthy living.

Interventions. City and regional planning are key components for creating built environments that are conducive to health. The County of Riverside Department of Public Health hired a planner to bridge the connection between health and planning and to work on two interventions: The California Endowment's *Building Healthy Communities Initiative* in the ... see page 2

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Eastern Coachella Valley, and the *Riverside County Health Coalition Healthy City Resolution Workgroup*.

In partnership with The California Endowment (TCE), DOPH collaborated with the city of Coachella to launch the City's first Health and Wellness Element for inclusion into the General Plan; TCE's Building Healthy Communities Initiative, a 10-year multimillion dollar initiative in 14 communities across California; and the Health Happens in Neighborhoods Action Team, developing campaigns through regional and city planning.

The Riverside County Health Coalition also released the Healthy City Resolution Toolkit, guiding Riverside County cities to adopt Healthy City Resolutions. The Coalition's goal is to assist at least fifteen cities to adopt the resolution by the end of 2014. Adopting Healthy City Resolutions is a first step for cities to consider incorporating health policies into their general plans.

Evaluation. Out of 29 jurisdictions in Riverside County, there were two adopted General Plan Health Elements, one draft General Plan Health and Wellness Element, one Healthy Communities Appendix, and four additional Healthy City or HEAL City resolutions to the existing eight adopted resolutions.

Summary. DOPH is taking innovative actions to ensure health is included in planning processes and decision-making, including collaboration between non-traditional partners — planners, city managers and elected officials, and health advocates — and encouragement and assistance to enact Healthy City Resolutions and/or health policies for inclusion into General Plans. ❖

POSTER PRESENTATION

1800 tests, 24 hours: large-scale tuberculosis testing with the Incident Command System.

Presented April 23, 2014 at California Tuberculosis Controllars Association Annual Meeting, Los Angeles, CA.

*Cameron Kaiser, MD * Barbara Cole, RN, MSN, PHN * Kim Saruwatari, MPH * Ramon Leon, MPH * James Saunders, RN, PHN * Noriko Cuaron, RN, MPH, PHN * Irene Hastings, RN, PHN * Donna Bedney, RN, PHN*

Abstract. An active TB case was identified at Indio High School in Riverside County, Calif. in November 2013. After initial contact investigation and testing demonstrated nearly 30% positive results, the entire school was ordered tested. Using the Incident Command System, the Department Operations Center was able to mobilize the entire health department in 24 hours to test 1,806 students and staff using skin testing and Quanti-FERON™ before winter break. Two subsequent cases were found. We present this case to increase the evidence base for when to trigger large scale TB testing in congregate settings, and to review our successes and opportunities for improvement when operating a large TB testing operation under such urgent conditions.

Background. An index case of active TB was detected at Indio High School, Indio, Calif., in November 2013. Per Disease Control protocol an initial contact cohort of 198 individuals was identified and tested on December 16, 2013. On the readback day, the 18th, 59 were positive (29.8%). Several stat X-ray reports became available the same day with abnormalities ranging from granulomatous disease to a large potentially cavitary mass. Based on the unexpectedly high number of positive results and the early X-ray findings, the remainder of the high school was ordered tested under health officer authority. Because the school was due for winter break the next week, the testing had to be completed on December 20th.

Methods/Results. The health officer notified the department duty officer to open the Department Operations Center (DOC) and activated the Rapid Response Team protocol. The Incident Command System was initiated by public health emergency preparedness staff and staffed by multiple department branches. A press briefing by the local county supervisor, the health officer, the school and district, and city EOC staff was held on the 19th; the school mandated all students and staff must be cleared before returning. ICS logistics was able to mobilize sufficient PPD solution from department stock and the county health care system; PHNs were pulled from all available department functions to staff the clinic and sufficient public health lab staffing and reagents were identified to cover 400 Quanti-FERON™ GIT tests.

On the 20th between 0800 and 1500 hours, on-site staff facilitated screening 1,806 students and staff with a combination of TST (1,494) and QFT-GIT for those who could not return (213); the remaining 99 had a previous +TST and were symptom-screened instead. Lab staff ran QFT testing over the weekend to use as an early indicator with 13 positive (6.1%) and 8 indeterminate (3.8%). On the 23rd between 0800 and 1200 hours, 1,464 students and staff were read back; 133 were positive (9.1%) and referred for X-rays.

The DOC demobilized and returned to duty officer status, and Disease Control staff continued coordinating followup of outstanding test results and issuance of

clearances. Repeat testing after the window period demonstrated 10 new converters of the original 198. Two TB5s were managed in clinic by the TB physician/health officer, who reclassified them as presumptive TB3 based on radiographic improvement. Of the remaining TB2/4s, +TST contacts in the original cohort were offered 3HP; 35 were scheduled and the remainder were lost, refused or saw their PMD. +TST/+QFT results identified in the large-scale testing day were offered 6H; 37 accepted. Only 22, all from the initial cohort, were completely lost to followup. 2,004 individuals were ultimately evaluated.

Discussion. TB testing an entire high school is obviously a highly unusual event; a similar incident occurred at a Colorado school in 2011 with 1,249 individuals screened after a trigger of approximately 35% positive tests in a secondary cohort of 140.¹ Although Colorado is a low-prevalence state, our local rates in Riverside County do not typically exceed 10-15% positivity in a cohort, so a 30% rate is extraordinary and can suggest potential transmission. While there is currently a poor evidence base for determining when an emergency activation should occur, it is gratifying our numbers are similar. However, the Colorado incident was operated in 12 separate clinics over roughly one month and did not use ICS or public health emergency preparedness personnel. We are not aware of a similar incident of this magnitude operated in this short of a turnaround period.

The use of ICS and public health preparedness can rapidly mobilize department resources across branches and even across departments. ICS' clearly defined command structure has been proven to aid resource and information flow, and also provides for management of the press and coordination with other local agencies.² This particular local effort was also facilitated by school support and the requirement that clearance be obtained before readmission, which greatly increased adherence; the school also provided security and space for the clinic, and media were kept off-premises during testing and readback. In addition, both departmental administration and county government strongly backed the effort.

During the incident, however, we did recognize that a formal Joint Information Center would have better assisted the DOC in managing media activities, and during readback those waiting to be read in the same room may have been able to infer other individuals' test results based on the next station they saw them sent to. This may require space partitioning or blinded stations to improve confidentiality in large testing venues. Also, large testing results may generate large numbers of positive tests, requiring prioritization of labour-intensive LTBI regimens; in this case, we reserved 3HP for those determined at highest risk due to limited nursing staff.

References. 1. Bargman et al. *Transmission of*

Mycobacterium tuberculosis in a high school and school-based supervision of an isoniazid-rifapentine regimen for preventing tuberculosis — Colorado, 2011–2012. MMWR October 4, 2013 / 62(39);805-809.

2. Adams et al. *Utilization of an incident command system for a public health threat: West Nile virus in Nassau County, New York, 2008.* J Public Health Manag Pract. 2010 Jul-Aug;16(4):309-15. ❖

RESEARCH DISSERTATION

Evaluating the effects of workforce development on behavioral intention to reduce health disparities.

Abstract only (pending publication).

Marshare Penny, DrPH * Naomi N. Modeste, DrPH^a * Patricia Herring, PhD, RN^a * Helen Hopp Marshak, PhD^a * Aaron T. Gardner, MA

(^a non-DOPH affiliate)

Background. It is well documented that health disparities are caused by inequities in the social determinants of health. An organizational transformation within public health agencies and entities is needed in order to reduce and eliminate health disparities as well as the inequities.

Purpose. For this study a cross-sectional quasi-experimental design was used to evaluate the *Improving Health for All* (IHA) Discussion Series implemented among the staff of the Department of Public Health in Riverside County, California beginning in April 2011. In this study, we examined the effects of four modules (*An Overview of Public Health, Cultural Competency and Acceptance, Deconstructing Racism and Social Determinants of Health*) in a 6-module workforce intervention aimed to engage staff in dialogue to strategize disparities reduction activities and efforts. Using the theory of planned behavior (TPB), the relationship between attitudes, subjective norm, perceived behavioral control, and behavioral intention towards addressing health disparities was examined. There was also the comparison of responses between those who have formal public health training and those who do not.

Methods. Using a retrospective pretest, data was collected from participants after completion of module 4, in this 6-module discussion series. Data analysis was performed using multiple linear regression analysis to predict behavioral intention based on the knowledge, attitudes, subjective norm, and perceived behavioral control variables in the model. Pretest and posttest intervention measurements were obtained to perform Wilcoxon and ANCOVA tests to measure differences due to the intervention. Post intervention measurements were compared between those who have formal public health training and those who do not.

Results. The regression model significantly predicted 66% of the variability in behavioral intention ($R^2 = .66$, $F(17, 138) = 16.018$, $p < .001$). Among the theoretical constructs evaluated, attitude posttest score ($t(138) = 2.28$, $\beta = .149$, $p < .05$), subjective norm posttest score ($t(138) = 5.61$, $\beta = .408$, $p < .001$), perceived behavioral control posttest score ($t(138) = 5.12$, $\beta = .454$, $p < .001$), and attitude pretest score ($t(138) = 3.13$, $\beta = .201$, $p < .05$) were significant predictors of posttest measure of behavioral intention, $R^2 = .66$, $F(17, 138) = 16.018$, $p < .001$. Posttest responses were significantly higher than retrospective pretest scores for all variables. Posttest responses for knowledge and perceived behavioral control were also higher among staff with formal public health training.

Conclusions. The results of this study indicate that the IHA intervention increases knowledge and awareness of issues that are integral in addressing health disparities and the intervention positively influences TPB variables. Additionally, the study supports the use of the TPB to predict behavioral intention to develop strategies to address health disparities.

Citation. Penny, M., Modeste, N., Herring, P., & Marshak, H. (2014). Evaluating the effects of workforce development on behavioral intention to reduce health disparities (Unpublished doctoral dissertation). Loma Linda University, Loma Linda CA. ❖

POSTER PRESENTATION

WIC worksite wellness: making the case for local health departments with

limited resources.

Presented July 11, 2012 at the National Association of County and City Health Officials Annual Conference, Los Angeles, CA.

Gayle Hoxter, MPH, RD * Perveen Ali, MS, RD * Cheri Blucher, RD

Introduction. WIC Worksite Wellness is a statewide wellness initiative created for California's 3,500 dedicated frontline employees. Aligning the WIC working environment with the nutrition and health messages that WIC staff share with over a million WIC families every year, this comprehensive wellness program focuses on workplace policies that build a culture to promote and support lifelong healthy habits.

The Riverside County WIC program became an official certified Well WIC Worksite by the California WIC Association in December of 2010. Riverside County WIC supports 250 employees in activities fostering good health and well-being. This best practices program created organizational policy change with local wellness plans integrated into our County's wellness program.

Steps taken to becoming a certified well worksite included:

1. Periodic evaluation to assess the success and identify changing needs of the worksite wellness programs.
2. Regularly Communicate wellness to staff.
3. Designate staff members to coordinate wellness activities in the agency.
4. Capture senior-level and board support.
5. Community capacity building.
6. Lactation accommodation for staff.
7. Emotional and mental health.
8. General health.
9. Physical activity.
10. Better nutrition and healthy foods.

Successes and Best Practices.

- Healthy snacks at staff in-services; staff bring healthy snacks to share at work site.
- Communicate with staff with bulletin boards and bi-monthly newsletters.
- Physical activity breaks at in-services. Worksites take 10 minute stretch breaks or workout during lunch together.
- Fostering a healthy working environment; all staff support each other and eat healthy together.
- Employees are recognized at in-services for making positive changes to improve their personal health. Co-

workers nominate each other or the worksite.

Sustainability. Employees additionally have access to the County Wellness Program. Employees, their covered spouse or registered domestic partner, and retirees are eligible to work with a team of health and wellness professionals to design a customized plan to improve their health and wellbeing. The Program provides support by engaging the participant in their own “path” towards optimal health and wellness by providing a variety of resources and an integrated medical management model. Eligible employees receive monetary incentives toward medical health plans.

Conclusion. Our WIC Worksite Wellness program is making a difference in our 250 employees and their families which is making a difference in our 96,000 WIC families as well. ❖

POSTER PRESENTATION

Thriving Across America with Riverside County: an example of a successful workplace physical activity initiative.

Presented February 12, 2014 at P21: Advancing Prevention in the 21st Century, Commitment to Action 2014, Sacramento, CA.

Wendy Hetherington, MPH * Marshare Penny, DrPH * Susan Harrington, MS, RD * Michael Osur, MBA

Introduction. Research supports the notion that well-designed workplace health promotion can improve employee health and well-being as well as reduce chronic disease. Employee health is a unique opportunity for health promotion efforts as employees are a captive audience, spending their most productive hours in the workplace. This study aims to explore the effects of a countywide effort to support a healthy workplace through fostering engagement in physical activity.

Background. Riverside County, CA is home to 2.2 million residents and is a leader in urban sprawl. Local issues include high foreclosure rates, long commutes and limited mass transit options. Over 64% of Riverside County

adults and 24% of teens are overweight or obese .

The County of Riverside employs over 17,000 people and is one of the larger employers in the Inland Empire. Employee wellness data indicates that 75% of County employees are overweight or obese.

Kaiser Permanente’s *Thrive Across America* is an online physical activity program where participants travel from Maine to Hawaii along a virtual route, visiting more than 50 of our nation’s most treasured outdoor attractions brought to life with vivid pictures and detailed descriptions. Each time physical activity minutes are recorded, participants move along a virtual route through the United States. Recording 30 minutes or more of physical activity a day earns a star. Employee groups have the option of forming teams with up to 10 participants; the more stars your team earns, the higher the score (team participation is optional).

Methods. Over 17,000 county employees across more than 40 departments and agencies were invited to participate in the 8-week Thrive Across America challenge. Participants were asked to log their minutes of physical activity daily. Pre- and post-participation data on exercise frequency as well as participant stage of behavioral change also was gathered. The initial goal was the participation of at least 2,000 employees.

Results. 3,846 County employees registered for the Thrive Across America challenge. Of those, 65% participated on one of 325 teams.

Before the challenge 16.8% of participants reported being physically active more than 5 days each week. At the end of the challenge, that percentage increased to 44%. The percent of participants that reported spending on average 30 minutes or more exercising increased from 57% to 74%. Additionally, 67% of participants experienced an increase in their physical activity over the course of the challenge.

[The next County of Riverside Thrive Across America Challenge started March 24. — Ed.] ❖

*Our next issue
will be published September 1.*

A small print run is available for copies by mail at no charge. We would be delighted to add you to our mailing list as our limited supply permits; please request by E-mailing the editor.

Information for Disease Reporters

All case reporting forms and information for the County of Riverside Department of Public Health are available from our website at www.rivcoph.org.

Communicable Disease Reporting

Please refer to our on-line list of reportable conditions, including those to be reported immediately by telephone, within one day of identification and within seven calendar days. All forms are available from <http://www.rivco-diseasecontrol.org/>

Telephone Reporting: For STD reporting, please call 951 358 7820. For all other conditions, or after hours or urgent reports, call 951 358 5107, 24 hours a day.

Fax Reporting: Please use the appropriate form for the condition. STD reports should be faxed to 951 358 6007. All other reports should be faxed to 951 358 5102. Please note that HIV/AIDS reports may *not* be faxed and must be securely sent by mail. Please see our website for specific instructions.

Non-Communicable Disease Reporting

Certain non-communicable diseases are reportable under state and local statute. These conditions include, but are not limited to, pesticide exposure and DMV reportable conditions such as disorders characterized by lapses of consciousness. Please refer to our on-line list of reportable conditions for more information.

Animal Bites

Animal bites must be reported to both the Department of Public Health and the Department of Animal Services. For more information, please call 951 358 7387 during business hours.



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