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leisure-related activities. Body weight transition was examined by body weight status. Epidemiological transition was examined with non-communicable diseases (hypertension, diabetes, dyslipidemia, stroke, heart problems) and communicable disease (tuberculosis). Nutrition transition could not be examined because of data unavailability. All analyses were conducted with SPSS.

Results: Analyses revealed improving education level, more consumption of sugar and sweeteners and vegetable oil, less physical activity, more overweight and obesity, and increasing non-communicable diseases. Multiple logistic regressions showed that higher risk for high blood pressure was consistently associated with being female (cross-sectional: OR 3.35 (2007) and 2.16 (2014); $P < .001$ and longitudinal: OR 1.95; $P < .05$) and overweight (cross-sectional: OR 2.18 and 1.38; $P < .05$ and longitudinal: OR 1.01; $P < .05$). Physical activity transition were associated with lower risk of high blood pressure in 2007 with doing vigorous activities (OR 0.73; $P < .05$) and moderate activities (OR 0.69; $P < .05$), but not in 2014. No significant associations were found with dietary transition.

Conclusions and Implications: All transitions occurred in line with literatures and were interrelated. In Indonesia, only body weight transition appeared to be consistently associated with epidemiologic transition, even after adjusting for other transitions.

Funding: None.

P38 Obesity-Related Health Statistics Correlate More Strongly to Coalition Network Indices than Typical Effectiveness Evaluations

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Background (Background, Rationale, Prior Research, and/or Theory): Community health coalitions (CHCs) aim to improve local food/physical activity environments. Traditional CHCs evaluations measure perceived effectiveness, failing to quantify network structures or health outcomes. Thus, we applied a mixed-methods evaluation; triangulating the Coalition Self-Assessment Survey (CSAS), social network analysis (SNA), and obesity-related county-level health statistics (ObCLHS).

Objective: To improve CHCs evaluation by exploring relationships between network structures, perceived effectiveness, and obesity-related social-behavioral factors.

Study Design, Setting, Participants, Intervention: We administered CSAS and SNA in eight rural CHCs during summer 2017 and accessed the latest available (2015-16) ObCLHS. We conducted factor analysis on CSAS responses and compared ObCLHS, SNA, and CSAS factors using Pearson's correlations.

Outcome Measures and Analysis: ObCLHS included adult BMI (aBMI), daily sugar-sweetened soda intake (Soda),

daily sugar-sweetened beverage intake excluding soda (SSB), no physical activity in 30 days (noPA), and food insecurity (FoodIns). We conducted SNA on CHCs partnership, trust, and communication networks using the following indices: density (number of actual connections/all possible), eigenvector centralization (presence of a network broker), mean indegree (average number of connections members hold), indegree centralization (whether there is a central person). CSAS factors loaded on leadership, operating norms, actionable outcomes, personal problems for participation (PPP), and lack of common goals (LCG).

Results: ObCLHS correlations to SNA: FoodIns negatively correlated to partnership, trust, and communication network density; Soda, aBMI, and noPA positively correlated to partnership, trust, and communication network indegree centralization; SSB and FoodIns negatively correlated to partnership, trust, and communication network mean indegree. ObCLHS correlations to CSAS: Soda negatively correlated to PPP; FoodIns positively correlated to leadership and negatively correlated to LCG.

Conclusions and Implications: To assess CHCs impact on health, evaluation should include SNA. ObCLHS were more strongly correlated (greater number of and consistently higher correlations) to SNA indices of CHCs than typical effectiveness evaluation surveys. We are pursuing state-wide evaluations, longitudinally, to clarify trajectories and validate this model for effective and sustainable CHCs.

Funding: None.

P39 Prevalence and Correlates of Family and Campus Food Insecurity Among Freshmen at a University in Appalachia

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Background (Background, Rationale, Prior Research, and/or Theory): Food Insecurity means having limited access to nutritionally adequate foods. College students are a vulnerable population for food insecurity, with rates ranging from 14% to 59%. Freshman are in a transitional period where budgetary restrictions and limited money management and food-related skills may predispose to inadequate food intake.

Objectives: To measure the prevalence and identify correlates of familial and campus food insecurity among freshmen, and to compare correlates among food insecure (FI) and food secure (FS) freshmen.

Study Design, Setting, Participants, Intervention: Cross-sectional online questionnaire administered to 456 freshmen (males = 118, females = 331).

Outcome Measures and Analysis: Family and campus food security status using the Adult Food Security Survey Module (AFSSM), meal skipping (MS), coping strategies (CS), academic progress (AP), and money expenditure (ME).

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Descriptive and inferential procedures were performed. Statistical significance was $P \leq .05$.

Results: Significantly more freshmen were FI on campus than at home (29.4% vs. 7.1%, $P < .05$). FI freshmen earned higher MS scores at home ($P < .01$) and on campus ($P < .01$) than FS freshmen. Coping strategies used most often by FI families and by FI freshmen on campus, respectively were “stretched food to make it last longer” (72.9% vs. 16.3%) and “purchased cheap, processed food” (68.8% vs. 18.4%). Family AFSSM and CS scores were positively correlated ($r = .52$, $P < .01$), and freshmen who used more coping strategies on campus experienced more severe FI. FS students earned a significantly higher mean score on the AP scale ($P < .01$) than FI freshmen, suggesting an adverse impact of FI on academic performance. The two nonfood items purchased “often” by the FI and FS freshmen, respectively were school expenses (26.5% vs. 16.6%, $P < .05$) and entertainment (21.4% vs. 17.7%).

Conclusions and Implications: Freshmen are more severely impacted with FI on campus than at home and need campus and community programs and policies that facilitate regular access to nutritious foods.

Funding: None.

P40 The Future of Tap Water—Will Young Adults Invest?

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Background (Background, Rationale, Prior Research, and/or Theory): Drinking Water Week, an event sponsored by the American Water Works Association, underscores the values that tap water brings to a community including reduced mortality through source protection and water treatment (CDC, 2017). It also draws attention to our aging water systems and the growing need for replacement, however, funding for buried infrastructure alone is estimated at a trillion dollars and household utility bills will inevitably rise (AWWA, 2011).

Objective: Explore perceptions of tap water quality, safety, and acceptance of updating costs.

Study Design, Setting, Participants, Intervention: Undergraduate students wrote essays in response to a prompt concerning “the one thing that you would change about the water in your neighborhood.” To establish interrater reliability, two investigators independently coded a subset to achieve agreement before finalizing themes which were incorporated into survey questions. Expert review estimated face validity and a test-retest established question reliability. University IRB approved protocols.

Outcome Measures and Analysis: Survey outcomes included demographics and perceptions of tap water taste, safety, and conservation, and willingness to financially support improvements.

Results: A total of 392 usable surveys were collected. Most students (54.1%) rated the taste of tap water as poor or

fair while 51.0% rated safety as good or excellent. A minority (13.0%) agreed that society was doing a good job promoting water conservation and only 18.4% agreed that the government was doing a good job. Close to a majority (47.2%) felt that bottled water was better for health. A large majority (77.1%) agreed that an extra dollar a day to improve a neighborhood water system was worth it.

Conclusions and Implications: Public support for water infrastructure is critical. Young adults are concerned about water conservation and exhibited a willingness to invest in water systems.

Funding: None.

Written Oral and Social Media Communication

P41 I Really Should Change My Mind About These Vegetables: A Signature Assignment with Social Responsibility in Mind

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Objective: Describe an exercise in an undergraduate nutrition class that meets Texas Higher Education Coordinating Board (THECB) social responsibility objectives and is assessed using a rubric adapted from the Association of American Colleges and Universities (AACU) VALUES rubrics.

Target Audience: The audience is educators interested in embedded assignments and AACU VALUES rubrics for assessing written student work.

Theory, Prior Research, Rationale: Even as Every Student Succeeds Act [ESSA] 2015 addressed standardized testing as an accountability measure, it sparked interest in authentic or direct evaluation of student performance in higher education. Through signature assignments universities, engage faculty in assessment design and generate common data across diverse courses and multiple disciplines.

Description of Course and Curriculum: Principles of Nutrition is a large enrollment undergraduate course that meets THECB social responsibility objectives including intercultural competence, knowledge of civic responsibility, and ability to engage effectively in regional, national, and global communities. During summer 2017, faculty attended a LEAP Texas Signature Assignment Institute and worked across disciplines to create student learning experiences that demonstrated knowledge acquisition and real-world application. The goal was to produce assignments that tested proficiency without relying on standardized testing. The resulting nutrition signature assignment, I Really Should Change My Mind About These Vegetables, was launched in Fall 2017.

Evaluation: Prior to writing a 500-word Change My Mind About These Vegetables reasoned statement, students engaged in Least Likely Vegetable discussions that demonstrated growth in food knowledge and self-reflection

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