ARCH: 5301-002: Special Problems in Architecture: Health and Wellness in the Designed Environment

Instructor	Prof: Saif Haq, PhD, email: saif.haq@ttu.edu , Office Arch 1008F, Phone: 806-834-6317
Class times and location	TUESDAYS and THURSDAYS, 2:00 PM - 3:20 PM. Synchronous Online
Instructor Office Hours:	Tuesdays and Thursdays 12:30 PM to 2:00 PM and by appointment. (If you need to talk to me outside my office hours, feel free to call, email or text. I will do my best to meet with you. Leave message if I am not available. I will respond ASAP)

If changes are made in this syllabus, then it will be announced in class and marked in RED.

COVID HEADER

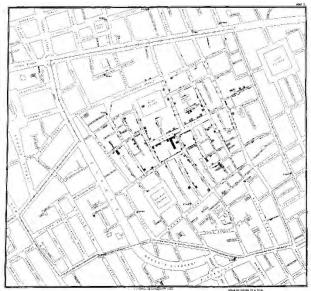
This class is categorized as ONLINE and SYNCHRONOUS. This means that we will meet via 'ZOOM' at the day and time specified above. The Instructor will email a link that will allow you to join the zoom meeting.

All students will need to have a good computer with a stable and fast internet access, a microphone, a web-camera, and a set of headphones.

Please find a quiet place for the class. Your camera should be turned on and microphones muted unless you want to ask a question.

CATALOGUE DESCRIPTION:

Prerequisite: College approval. Individual study projects in architecture of special interest to students. May be repeated for credit.



Map from the book "On the Mode of Communication of Cholera" by John Snow, originally published in 1854 by C.F. Cheffins, Lith, Southhampton Buildings, London, England. The image is a digitally enhanced version found on the UCLA Department of Epidemiology website.

COURSE DESCRIPTION

This seminar will hold the premise that the designed environment has a profound influence in the health and wellbeing of all human inhabitants and will explore the interrelationships at various scales and settings. While discrete environmental factors interact with one another to create health effects, this class will study them separately and understand their consequences.

Directed readings, focused discussions, case studies and student projects will be the tools of this class. Completion will shift the attitude from 'pathogenic' to a 'salutogenic' approach where factors that enhance health and wellbeing becomes the basis of design decision making.

PRE-REQUISITE

- 1. A good knowledge of historical and contemporary architecture.
- 2. An inquisitive mind.
- 3. Willingness to think critically and work hard.

STUDENT LEARNING OBJECTIVES

- 1. Key concepts and debates pertaining to the relationship between human health and the environment
- 2. The designed environment's positive and negative influence on public health.
- 3. Design options at various scales to promote health and wellness

STUDENT PERFORMANCE OBJECTIVES

- 1. Describe key concepts and debates pertaining to the relationship between health, wellness and the designed environment.
- 2. Explain health and wellness influences of design in the built environment
- 3. Formulate design positions regarding health and wellness in various settings

REQUIRED BOOK



Making Healthy Places: Designing and Building for Health, Well-Being, and Sustainability. Andrew Dannenberg, Howard Frumkin, Richard Jackson. Island Press, 2011

Other readings as assigned by Instructor.

ADDITIONAL SOURCES OF INTEREST

BOOKS

tba

ARTICLES

tba

VIDEOS

Improving Public Health Through Community Design | Gary Gaston,
TEDxNashvilleSalonhttps://www.youtube.com/watch?v=F_M04dK5jx4

Architecture that's built to heal | Michael Murphy, https://www.youtube.com/watch?v=MvXZzKZ3JYQ

CLASS STRUCTURE

This class requires substantial student engagement. Do not skip the readings. Do not be passive. The challenges that you as designers of our environment will face requires creativity and courage, deep training and learning from experience. Most importantly, the ability to learn from evidence to make appropriate design decisions.

The class will be in a seminar format where each student will be required to lead a discussion (see weekly project below).

WEEKLY PROJECTS

BEFORE CLASS

There are readings assigned for each week's topic and a set of 'questions to consider'.

Each student will be given one question to explore. The student is required to lead a class discussion and submit a two page 'illustrated' report. Please

- 1. finish the readings assigned for a general understanding of the topic
- 2. carry out information search about related materials (hint: follow citations in the reading itself, library searches, quick internet searches etc.).
- 3. relate the question to the larger issues of Health and Wellness in the Designed Environment
- 4. Prepare a two page 'illustrated' report

DURING CLASS

Provide a presentation and lead the discussion on your topic. (5-minute presentation + discussion) Please do not simply answer the question but use it as a 'prompt' to embark on a discussion.

AFTER CLASS

Email illustrated report to instructor in PDF format

MIDTERM PRESENTATION

Draft presentation of your final project (described below) in PowerPoint format.

FINAL PROJECT

- 1. Choose any neighborhood that you know
- 2. Do a windshield survey and collect other data from public websites.
- 3. Report on its existing conditions (you may choose to take one or many health aspects as you want. Please consult with instructor)
- 4. Make appropriate design interventions and describe what health benefits you expect to see.
- 5. Include appropriate DESIGN responses to the prevailing CORONA VIRUS
- 6. This should be presented in class as a PowerPoint presentation and submitted to instructor as a graphical report. Include a set of pre and post condition drawings/images etc. (No more than 10 letter-sized pages)

GRADE DISTRIBUTION

1. Weekly participation and Reports 45% (presentation and submission)

Mid Term Presentation
 Final Presentation
 Final Paper
 30%

EVALUATION CRITERIA

Written Papers:

- 1. Clarity
- 2. Appropriate writing style including citations
- 3. Compelling graphics
- 4. Examples cited

Presentations:

- 1. Clarity of concepts presented
- 2. Adherence to time
- 3. Slide Design and Graphics
- 4. Examples cited

GRADING POLICY

Grade A: Superior work. Exceptional performance strongly exceeding requirements of assignments;

initiative proving independent resourcefulness; strong positive attitude toward the work;

a growing level of improvement.

Grade B: Good, above average. Adequate performance above the norm, accurate and complete,

beyond requirements of assignments: good initiative; positive attitude toward the work;

improvement showing marks of progress.

Grade C: Average. Mediocre or conservative performance, satisfying all requirements of

assignments with a neutral and ordinary level of initiative, attitude, and performance.

Grade D: Not Acceptable. Performance not meeting the passing standards of the course. Initiative

unacceptable. Work below standard.

Grade F: Failing. Ineffective performance not satisfying the requirements of the assignments to an

extreme degree. Level of initiative, attitude, and improvement non-existent.

A student who has shown clear and successful improvement throughout the semester may be given the advantage in final grade.

For the purpose of calculating a final grade the following numbering system will be used: A+=97-100, A=93-96, A-=90-92, B+=87-89, B=83-86, B-=80-82, C+=77-79, C=73-76, C-=70-72, D+=67-69, D=63-66, D=60-62. C=70-72, C=70-72,

ATTENDANCE POLICY

The College of Architecture at Texas Tech University takes the professional preparation of its students as future architects very seriously. Architectural professionals understand the importance of being present, on time, with work completed. Adherence to these professional attributes begins in architectural education. Thus, attendance is mandatory. For a graduate course, "attendance" means more than showing up to class. It means coming to class having read the materials or done the assigned tasks. It also means having assignments submitted when it is due. Please remember that each class builds on the previous one and being absent in class will seriously hinder comprehension of the materials.

A maximum of two absences will be excused. For each <u>unexcused</u> absence after that, 2% will be deducted from the final grade. However, as per college-approved policy, more than five absences (excused or unexcused) will result in a failing grade. In keeping with the same spirit, students who attend all the classes in the semester will be eligible to receive an extra 2% in their final grade.

Each student is expected to attend all lectures and discussions in their entirety. Arriving late to class, working on anything other than class work and departing early can be considered as absences.

Also see

Texas Tech University Class Attendance Policy in pp. 51 and College of Architecture's attendance policies in pp. 101 of Tech University Graduate and Undergraduate Catalogue 2020-2021, available at https://www.depts.ttu.edu/officialpublications/pdfs/2020 2021 catalog TTU.pdf

Additionally,

If at any time during this semester you feel ill, in the interest of your own health and safety as well as the health and safety of your instructors and classmates, you are encouraged not to attend face-to-face class meetings or events. Please review the steps outlined below that you should follow to ensure your absence for illness will be excused. These steps also apply to not participating in synchronous online class meetings if you feel too ill to do so and missing specified assignment due dates in asynchronous online classes because of illness.

1. If you are ill and think the symptoms might be COVID-19-related:

- a. Call Student Health Services at 806.743.2848 or your health care provider. After hours and on weekends contact TTU COVID-19 Helpline at [TBA].
- b. Self-report as soon as possible using the Dean of Students COVID-19 webpage. This website has specific directions about how to upload documentation from a medical provider and what will happen if your illness renders you unable to participate in classes for more than one week.
- c. If your illness is determined to be COVID-19-related, all remaining documentation and communication will be handled through the Office of the Dean of Students, including notification of your instructors of the period of time you may be absent from and may return to classes.
- d. If your illness is determined not to be COVID-19-related, please follow steps 2.a-d below.

2. If you are ill and can attribute your symptoms to something other than COVID-19:

- a. If your illness renders you unable to attend face-to-face classes, participate in synchronous online classes, or miss specified assignment due dates in asynchronous online classes, you are encouraged to visit with either Student Health Services at 806.743.2848 or your health care provider. Note that Student Health Services and your own and other health care providers may arrange virtual visits.
- b. During the health provider visit, request a "return to school" note;
- c. E-mail the instructor a picture of that note;
- d. Return to class by the next class period after the date indicated on your note.

Following the steps outlined above helps to keep your instructors informed about your absences and ensures your absence or missing an assignment due date because of illness will be marked excused. You will still be responsible to complete within a week of returning to class any assignments, quizzes, or exams you miss because of illness.

3. If you have interacted with individual(s) who have tested positive for COVID-19:

Maintain a list of those persons and consult Student Health Services at 806-743-2911 or your primary care provider on next steps.

ELECTRONIC MAIL

All students should update their official TTU email accounts and check it every day. Announcements and other information will be sent to this email address. *This will be considered 'official' notification*.

SCHEDULE

WEEK		DATE	UNIVERSITY MANDATES	TOPIC	READINGS	QUESTIONS TO BE DISCUSSED
		Monday, August 24, 2020		CLASSES BEGIN		
1	1	Tuesday, August 25, 2020		INTRODUCTION TO HEALTHY PLACES	PREFACE CHAPTER 1: Introduction to Health Places	1. What are three examples of the tensions between public goods (such as parks and roads) and private entitlements (such as freedom to use one's land for any desired purpose) that may be confronted in public health decisions and in urban planning decisions. 2. What types of information might a community collect when conducting surveillance related to the health effects of the built environment and community design? From what sources could such information be obtained? 3. Because financial profitability plays a major role in most private sector decisions, how might health concerns be made a part of the bottom line for private developers and for private banks that finance developments? 4. Consider a study that evaluates the health of people in two communities, one with sidewalks and one without. The study authors find that the rate of lung cancer is higher in the community without sidewalks, and conclude that sidewalks protect against lung cancer. What concerns would you have about accepting this conclusion? 5. What information about the health implications of their work should land use and transportation planners be taught during their initial or subsequent training? 6. How are heart disease, cancer, diabetes, stroke, injuries and

						other causes of morbidity and mortality connected to the build environment?
	2	Thursday, August 27, 2020		INTRODUCTION (contd)		SUBMISSION: GENERAL CONCEPTS
2	3	Tuesday, September 1, 2020		PHYSICAL	CHAPTER 2: Community Design for Physical Activity	1. Describe the differences between physical activity for transportation and physical activity for recreation. How do features of the built environment affect these types of physical activity differently? 2. Identify five key findings from research on the relationship between the built environment and physical activity. How could you use these key findings to design active communities in rural, in suburban, and in urban settings? 3. Which attributes of the built environment could you target to make changes in physical activity quickly, given financial, political, and other challenges? Which attributes could you target to support long-term increases in physical activity? 4. Given limited resources, what changes to the built environment could you make in a disadvantaged, low-income community to promote physical activity? What outcome would you expect from such changes? 5. For each of the environmental attributes documented to be related to physical activity, identify the decision-maker groups with authority to make changes. For each type of decision-maker, identify some of the scientific, community, advocacy, and business groups who could be involved in educating and influencing these decision-makers. SUBMISSION WEEK: PHYSICAL ACTIVITY
	4	September 3, 2020		ACTIVITY (Contd)		SUBMISSION WEEK: PHYSICAL ACTIVITY
		Monday, September 7, 2020	LABOR DAY			
	5	Tuesday, September 8, 2020		MENTAL HEALTH	CHAPTER 7: Mental Health	GENERAL INTRODUCTION TO CHAPTER1.

3				and the Built Environment	 Considering your own experiences, identify the important characteristics of an urban setting that is vibrant and exciting. Then identify the important characteristics of an urban setting that is tranquil and peaceful. When you were last mentally fatigued, to what kind of place were you drawn TO? What features of this place supported your recovery from mental fatigue? Assume that a developer of a large office building in a northern city is concerned about the employees in windowless offices who will have little exposure to daylight, which is especially problematic during the shorter days of winter. What advice might you give this developer about the design of the building so the employees would be less likely to experience seasonal depression? What changes to the physical environment would have increased the strength of social ties and enhanced social capital in the neighborhood in which you grew up? Discuss why crowding can have negative consequences, but social interactions and the development of social ties from being with other people can have positive consequences. How does wayfinding issues effect mental health?
	6	Thursday, September 10, 2020	MENTAL HEALTH (Contd)		SUBMISSION: MENTAL HEALTH
4	7	Tuesday, September 15, 2020	SOCIAL CAPITAL	CHAPTER 8: Social Capital and Community Design	1. What lessons about influencing social capital can be learned from the design of existing planned communities? How do these lessons differ in urban areas and suburban areas? 2. What are some cost-effective design strategies that might enhance social interactions in communities?

	8	Thursday, September 17, 2020	SOCIAL CAPITAL (Contd)		3. What types of shared spaces might best promote social interactions, and why do they do so? 4. What kinds of policies can be enacted to improve social capital at the local level? 5. Research shows that social people tend to live in places that enable social interaction. How might this finding complicate the assessment of the effect of the built environment on social capital? 6. What are some empirical evidence to support the association between social health and the built environment? SUBMISSION: SOCIAL CAPITAL
5	9	Tuesday, September 22, 2020	TRANSPORTATION	CHAPTER 10: Transportation and Land Use Suggested: CHAPTER 5: Injuries and the Built Environment	1. What features of the built environment encourage physical activity? What features discourage physical activity? 2. How do development patterns impact environmental quality? 3. What policies facilitate development that is consistent with the 5Ds of development? Of these, which are most feasible for your city or region and why? 4. Why might some land use and transportation planners be reluctant to incorporate health considerations into their decisions? 5. How can more interactions between public health departments and planning departments be encouraged? 6. What are some planning aspects that might protect bicyclists and pedestrians?
	10	Thursday, September 24, 2020	TRANSPORTATION (contd)		SUBMISSION: TRANSPORTATION
6	11	Tuesday, September 29, 2020	AIR QUALITY	CHAPTER 4: Community Design and Air Quality	INTRODUCTION TO CHAPTER1. 1. What are the primary air pollution sources in urban environments?

					2.	How do everyday activities contribute to air pollution exposures in cities?
					3.	How is regional air pollution related to other health and environmental issues?
					4.	What are some examples of success in reducing air pollution emissions in cities?
					5.	Which populations are most susceptible to adverse health effects from air pollution, and what can individuals in susceptible populations do to reduce their exposure to air pollution?
					6.	what might be some relationships between high income and industrialization with air quality? Is this a factor in this day and age?
	12	Thursday, October 1, 2020	AIR QUALITY (Contd)		SUBI	MISSION: AIR QUALITY
7	13	Tuesday, October 6, 2020	MID TERM PRESENTATIONS			
	14	Thursday, October 8, 2020	MIDTERM PRESENTATIONS			
8	15	Tuesday, October 13, 2020	MIDTERM PRESENTATIONS			
	16	Thursday, October 15, 2020	MIDTERM PRESENTATIONS			
9	17	Tuesday, October 20, 2020	FOOD ENVIRONMENTS	CHAPTER 3: Food Environments	1. Do elemindic state which	escribe your area's local food environments, identifying ments of food production, distribution, and marketing, and cating how these elements vary within your city, county, or e. Which of these elements are likely to promote health and ch are likely to be detrimental to health?
					supe	ermarkets, restaurants, farmers' markets, and convenience

	18	Thursday, October 22, 2020	FOOD ENVIRONMENTS (CONTD)		stores) contribute to the development of health disparities among communities? 3. While zoning can encourage healthy food outlets to be built, store owners typically decide where to locate their stores based on the likelihood of profitability at any given site. What incentives or other approaches can be used to encourage supermarkets and other sources of healthy food to build in an area that lacks healthy food outlets? 4. What kinds of policy changes can favorably influence built environment aspects of the food environment to improve a population's health? 5. How do major U.S. agricultural policies and systems influence the built environment in ways that affect the health of the population and the health of the natural environment? 6. How does fast food joints contribute to population health? What might be some changes? SUBMISSION: FOOD ISSUES
10	19	Tuesday, October 27, 2020	NEIGHBORHOOD ATTRIBUTES OF HEALTH	CHAPTER 15: Contact with NatureCHAPTER 10: Transportation and Land Use	 What kinds of contact with nature have you experienced in the last three days? Did you seek these contacts out, or were they incidental to other activities? How did these contacts make you feel? Describe three design changes that might be carried out in your community to try to increase nature contact for those who live there. Describe design changes that might be carried out in buildings at your school or workplace to try to increase nature contact for those who work, study, or visit there. Develop a hypothesis about the health benefits of nature contact and describe how you could test it.

	20	Thursday, October 29, 2020	NEIGHBORHOOD ATTRIBUTES OF HEALTH (Contd)		 5. What are some differences between views to nature and access to nature? How can they be used in design? 6. What are some 'quantifiable' attributes of neighborhood amenities? How can you measure them? SUMBISSION: NEIGHBORHOOD
11	21	Tuesday, November 3, 2020	SCHOOLS and HEALTH	CHAPTER 14: Healthy Schools	GENERAL INTRODUCTON TO CHAPTER 1. Assume that an aging school in your community has problems with a leaky roof and mice in the kitchen area. How would you (a) assess the full extent of environmental health hazards in the school, (b) prioritize the hazards for attention and remediation, and (c) build support among staff, teachers, students, parents, and the Board of Education for making needed repairs? 2. Old, inner-city schools are likely to be more hazardous than recently constructed suburban schools. Do you agree or disagree and why? 3. Health goals and environmental goals often reinforce each other, but not always. Give one example of this reinforcement in a school setting. Give a second example of health and environmental goals coming into conflict in a school setting. 4. Why are children more susceptible to environmental hazards than adults are? 5. Why does the process of creating safe and healthy school environments need to consider factors beyond the walls of the school? 6. bring out the differences between indoor and outdoor spaces as they relate to health and learning?
	22	Thursday, November 5, 2020	SCHOOLS and HEALTH (Contd)		SUBMISSION : SCHOOLS
	23	Tuesday, November 10, 2020	FINAL PRESENTATIONS		

12	24	Thursday, November 12, 2020		FINAL PRESENTATIONS	
13	25	Tuesday, November 17, 2020		FINAL PRESENTATIONS	
	26	Thursday, November 19, 2020		FINAL PRESENTATIONS	
		Tuesday, November 24, 2020	NO EXAMS	ТВА	
		Thursday, November 26, 2020	THANKSGIVIN G HOLIDAY		
		Tuesday, December 1, 2020	LAST DAY OF THIS CLASS	ТВА	WRAP UP DISCUSSIONS: FINAL SUBMISSION (ILLUSTRTATED PAPER)
		Thursday, December 3, 2020	DEAD DAY		
		Monday, December 7, 2020	FINAL EXAM	1:30 - 4:00	
		Thursday, December 10, 2020	GRADES DUE FOR GRADUATING STDUENTS		
		Friday, December 11, 2020	COMMENCEM ENT		
		Saturday, December 12, 2020	COMMENCEM ENT		
		Monday, December 14, 2020	FINAL GRADES DUE		

ADMINISTRATIVE

PLAGIARISM

See 'Academic Integrity' pp.52, TTU Undergraduate and Graduate Catalogue, 2020-2021, available at https://www.depts.ttu.edu/officialpublications/pdfs/2020_2021_catalog_TTU.pdf

ACADEMIC INTEGRITY STATEMENT

Academic integrity is taking responsibility for one's own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement that includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures that grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. See statement of ethical principles at

https://www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php

CIVILITY IN THE CLASSROOM STATEMENT:

Texas Tech University is a community of faculty, students, and staff that enjoys an expectation of cooperation, professionalism, and civility during the conduct of all forms of university business, including the conduct of student–student and student–faculty interactions in and out of the classroom. Further, the classroom is a setting in which an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Students who disrupt this classroom mission by rude, sarcastic, threatening, abusive or obscene language and/or behavior will be subject to appropriate sanctions according to university policy. Likewise, faculty members are expected to maintain the highest standards of professionalism in all interactions with all constituents of the university (www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php).

WITHDRAWING FROM CLASS

Please withdraw on or before the University drop date. Please do not request a grade of 'I' without documented reasons allowed by the university.

ADA STATEMENT

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

RELIGIOUS HOLY DAY STATEMENT:

"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

DISCRIMINATION, HARASSMENT, AND SEXUAL VIOLENCE STATEMENT:

Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other Title-IX violations are not tolerated by the University. Report any incidents to the Office for Student Rights & Resolution, (806)-742-SAFE (7233) or file a report online at titleix.ttu.edu/students. Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are: TTU Student Counseling Center, 806- 742-3674, https://www.depts.ttu.edu/scc/(Provides confidential support on campus.) TTU 24-hour Crisis Helpline, 806-742-5555, (Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.) Voice of Hope Lubbock Rape Crisis Center, 806-763-7273, voiceofhopelubbock.org (24-hour hotline that provides support for survivors of sexual violence.) The Risk, Intervention, Safety and Education (RISE) Office, 806-742-2110, https://www.depts.ttu.edu/rise/ (Provides a range of resources and support options focused on prevention education and student wellness.) Texas Tech Police Department, 806-742-3931, https://www.depts.ttu.edu/ttpd/ (To report criminal activity that occurs on or near Texas Tech campus.)

LGBTQIA STATEMENT

Please see the resources that are available through the Office of LGBTQIA within the Center for Campus Life, Student Union Building Room 201, www.lgbtqia.ttu.edu, 806.742.5433."Other readings Campbell, M. (2005). "What Tuberculosis did for Modernism: The Influence of a Curative Environment on Modernist Design and Architecture." Medical History (49): 463-488.

Chambers, E. C., et al. (2018). "The Association Between Apartment Layout and Depressive Symptomology among Hispanic/Latino Residents in Low-Income Housing: the AHOME Study." <u>Journal or Urban Health</u> **95**(1): 51-60.