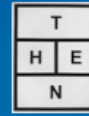


FALL-WINTER 2018 SEMI-ANNUAL REPORT

THEN Center

*The Center for Collaborative Study of
Trauma, Health Equity, and Neurobiology*



* A free educational program providing resources and a plan of study at the intersection of neurobiology, trauma-adversity, health and health equity.

* We invite all healthcare professionals to learn this profound science and embed it into your theory, teaching, clinical practice and research.

THEN is an educational program of the Hektoen Institute www.hektoen.org

We are excited to share that **THEN is on track to meet 3 of its 5 goals in only our first year of operation!**

- Expanded Website
- Free education for medicine-healthcare Faculty and Students
- Beginning development of graduate-level Curriculum on Trauma, Health Equity & Neurobiology

This Semi-Annual Report highlights Center accomplishments – as well as the many contributions of our esteemed Advisory Panel. We welcome suggestions and feedback – and look forward to continued growth in 2019.

Co-founders: Mardge Cohen, Pat Rush, Audrey Stillerman, and Kathleen Weber

THEN Website Updates: as the sciences of neurobiology, trauma and health equity continue to evolve, we have expanded our Website www.thencenter.org. We invite you to explore two new features:

- **CORE CONCEPTS:** using a system-based approach, we have organized key concepts into six branching clusters with links to videos, explanatory graphics, peer-reviewed publications, and other key websites.
 - Preface: The Impact of Trauma on Scientists and Healthcare Providers with a Guide to Self-Care
 - Science of Complex Systems
 - System Science and Human Health
 - Brain-Body Regulation
 - Pathway to Illness: Role of Adversity and the Roots of Health Disparity
 - Prevention and Treatment
- **RETHINKING OF DISEASE MODELS:** Our THEN team is developing a new, integrated approach to re-evaluate models of health and disease – starting with a statement of Conventional Medical Thinking, versus a Systems Biology perspective, plus looking at disease through a Trauma-Health Equity-Neurobiology lens [T-HE-N] For example, please **visit our new Web pages:** *[coming soon > Rethinking Chronic Pain]*
 - Disease > Hypertension: Rethinking Hypertension as one phase of Inflammatory Vascular Disease
 - Disease > Obesity: Rethinking Obesity as a complex neuro-endocrine-inflammatory Brain Disease

Free Education for Medicine-Healthcare Faculty and Students

We provided 1 Faculty Workshop and 2 Student Workshops during Fall 2018 – plus many presentations throughout Chicago and the Midwest (detailed below).

1) THEN Faculty Workshop October 3: THEN hosted a Faculty Workshop on Neurobiology at Rush Medical University. 38 Faculty representing medicine, nursing, psychology, social work and public health attended from Rush, University of Illinois Chicago, Cook County Hospital, Loyola, and University of Chicago. Our **guest speaker was Wayne Giles, MD MS, Dean**

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of the UIC School of Public Health and senior investigator of many publications of the Adverse Childhood Experiences research. Evaluations were very positive, "Workshop met my expectations" rated 4.94 (out of 5).

Thanks to THEN Advisors Jose Nino for helping lead Reflective discussion and Loren Williams for joining us.

2) **THEN Student Workshops:** The student response to the THEN Workshop on Neurobiology and Health Equity was overwhelming! Tickets sold out in 24 hours. On October 3 we hosted an interdisciplinary audience of 42 students from Rush, UIC, Northwestern, and Loyola representing medicine, nursing, social work, public health, pharmacy, neuroscience, speech-language, and community health. Students were enthusiastic and rated the Workshop 4.64 (out of maximum 5).

Thanks to THEN Advisor Orrin Williams and David Freedman for their support in leading the Case Discussion. We hosted a repeat of this workshop to 23 students from diverse backgrounds including dental school on November 8.



3) **UIC Medical Colloquium/Urban Health: Neurobiology, Trauma & Health Equity 2018-19.** Audrey and Pat taught four elective and special track courses to over 200 first and second year students. **Topics:** - Introduction to the Neurobiology of Trauma and Chronic Disease; Neuro Regulation; Health Equity; Controversies around Trauma Screening in Health Care.

THEN Development of Graduate Level Curriculum

ECHO-Chicago (Extension for Community Healthcare Outcomes) provides online training for community-based primary care providers to improve provider knowledge and self-efficacy as well as patient health outcomes. In Fall 2018, Audrey, pediatric and clinical psychology colleagues developed and co-taught a 12 session course, "Childhood Adversity and Trauma: Strategies for Promoting Health" to practicing clinicians.

Medspiration—Pat was invited to provide a 10 session tutorial on Trauma-Neurobiology and Systems Science to the physician founders of **Medspiration**, a not-for-profit offering free online education and health promotion resources with the goal of "advancing human potential and promoting better physical, mental and spiritual health for our human family." www.medspired.org. Medspiration has a vibrant social media presence on Facebook, YouTube, Instagram with over 305K followers and up to 5 million contacts per month.

Live Presentations/Symposia 2018

Grantmaker's in Health Annual National meeting (Chicago, June 2018) —Audrey Stillerman, Pat Rush, and THEN Advisors Margie Schaps and Orrin Williams participated in 3 sessions - in partnership with the Sweetwater Foundation <https://www.sweetwaterfoundation.com>, Chicago Foundation for Women, <https://www.cfw.org>, and Illinois ACE Response Collaborative, <http://www.hmpg.org/programs/illinois-aces-response-collaborative/>. THEN Advisor Larry Turner led yoga sessions for Conference wellness breaks.

Midwest ACE Regional Meeting, Healing Trauma, Healthy Communities (Milwaukee, September 2018) featured THEN Advisor Bruce Perry as keynote speaker as well as sessions by THEN Advisors Paul Alt, Margie Schaps, and Marlita White as well as Pat Rush and Audrey Stillerman

THEN Advisor Gene Griffin presented at the **Third International Neurosequential Model Symposium in Banff** (Alberta, Canada) hosted and organized by Bruce Perry and the Child Trauma Academy (www.childtrauma.org).

THEN Advisor Bruce Perry offered multi-day training workshops on the **Neurosequential Model of Therapeutics (NMT)** in the United States, Canada and Europe. NMT is an evidence-based, developmentally-informed, biologically-respectful approach to working with at-risk children. The NMT approach has been expanded to Education (teachers), Sport (athletes and coaches), and soon to Caregivers.

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THEN Advisor Stan Sonu delivered the 17th annual Donald Shaffner lecture at Emory University (Atlanta), presentations at Stroger-Rush Internal Medicine Grand Rounds, North Park’s community event “We’re All in this Together” (Chicago), and The Annual Georgia Grantmakers Association.



THEN Founders and Advisors reached 5000 audience members (conservative estimate) — talking about trauma, health equity and neurobiology to community members, undergraduates, health professional trainees, faculty, practicing clinicians and philanthropist-funders.

Multimedia

THEN Advisor Paul Alt- Interviewed on WORT Madison Wisconsin “Providing Veterans With Spaces For Healing” <https://www.wortfm.org/providing-veterans-with-spaces-for-healing/> and presented the webinar: “Transformation: Department of Veterans Affairs Healing Environment Design Guidelines” <http://hmprg.org/events/transformation-the-department-of-veteran-affairs-healing-environment-design-guideline/>



Pat Rush was part of a team of public interest lawyers, policy analysts and community activists who developed a **Class Action Suit on behalf of Illinois children affected by gun violence**. There was excellent press coverage [at least 8 print & video stories] and the story was picked up by the AP. Here are links to articles from the Chicago Tribune (full half-page) and The Trace.

<http://www.chicagotribune.com/news/local/breaking/ct-met-gun-violence-lazwsuit-20181003-story.html> <https://www.thetrace.org/2018/10/chicago-gun-violence-children-ptsd-lawsuit/>

THEN Advisors Stan Sonu and Marlita White partnered with **GRIP Outreach for Youth** to produce this video: <https://www.youtube.com/watch?reload=9&v=uDGFHtpNTJA>

Audrey Stillerman was interviewed for **Harvard Center for Primary Care’s “Review of Systems”** podcast, <https://primarycare.hms.harvard.edu/rospod/4203-2/> and <https://primarycare.hms.harvard.edu/rospod/ros-understanding-the-importance-of-adverse-childhood-events-on-health-w-audrey-stillerman-part-2/> and by *Chicago Health* magazine, <https://chicagohealthonline.com/healing-the-hurt/>

Civic Engagement and Systems Work

Mardge Cohen continues her leadership work with HIV in Rwanda - WE-ACTx for Hope (WFH). WFH led Kigali with 93% complete viral load suppression (compared to 86% in the USA) with no maternal-child transmission in babies born last year.

THEN Advisor Kim Mann continues to direct The Illinois Early Childhood Court Team program [IDCFS Early Childhood Court Team \(ECCT\)](#), currently serving 55 children younger than 4 involved in child welfare, as well as The Illinois Birth-3 [IB3] project [IDCFS: Illinois Birth through Three \(IB3\) Waiver – Child and Family Intervention](#), providing parenting programs to 2500 children since 2013 to address consequences of child maltreatment and support secure attachment. Recent outcome data demonstrates that children receiving these services have a 53% higher chance of reunification and legal guardianship.

Advisor Gene Griffin chairs Illinois Children’s Mental Partnership committed to mental health support for children & families.

Advisor Margie Schaps is co-facilitating trauma-informed systems change efforts for Illinois Health Departments, Chicago area hospitals, and local funders.

Advisor Marlita White is leading the trauma-informed city work, part of **Healthy Chicago 2.0** the city’s health plan now completing its 2nd of 5 years, which began with organizational transformation work in the Chicago Department of Public Health. **Pat Rush, Margie Schaps and Audrey Stillerman** have been regular participants and supporters.

Advisor Orrin Williams co-organized a healing ceremony for the earth with **Sweetwater Foundation** (Chicago).

T	Trauma
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Academic Leadership

UIC Department of Family Medicine named **THEN Advisor Memoona Hasnain** as Interim Department Head.

THEN Advisor Stan Sonu was named Associate Program Director for the J. Willis Hurst Internal Medicine Residency as well as the Emory Preventive Medicine Residency.

Scholarship

THEN founders and advisors had almost too many 2018 publications to count!

There were multiple collaborations among Advisors. Papers particularly relevant to THEN work include:

THEN Advisor Helen Burgess (7 publications). <https://www.ncbi.nlm.nih.gov/pubmed/?term=Helen+Burgess+2018>
Social support, social undermining and acute clinical pain in women. <https://www.ncbi.nlm.nih.gov/pubmed/30146929>

THEN CoFounders Mardge Cohen and Kathleen Weber. (total 21 publications)
Impact of chronic sexual abuse and depression on inflammation and wound healing in the female reproductive tract of HIV-uninfected and HIV-infected women. <https://www.ncbi.nlm.nih.gov/pubmed/29894487> and Cohen.
The effect of unstable housing on HIV treatment biomarkers...<https://www.ncbi.nlm.nih.gov/pubmed/30153546>
Mardge Cohen-- <https://www.ncbi.nlm.nih.gov/pubmed/?term=Mardge+Cohen+2018>
Kathleen Weber-- <https://www.ncbi.nlm.nih.gov/pubmed/?term=kathleen+weber+2018>

Mardge and Kathleen are key leaders in **WIHS (Women's Interagency HIV Study)** – the nation's largest and longest running HIV study in women. Current collaborations include **THEN Advisors Helen Burgess, Alan Landay, Eileen Martin, and Pamela Vergara-Rodriguez.** Research topics include sleep, exercise, depression, epigenetic changes related to stress.

THEN Advisor Memoona Hasnain-(2 publications)- <https://www.ncbi.nlm.nih.gov/pubmed/?term=memoona+hasnain+2018>

THEN Advisor Alan Landay (16 publications) - <https://www.ncbi.nlm.nih.gov/pubmed/?term=alan+landay+2018>

THEN Advisor Eileen Martin (7 publications) - <https://www.ncbi.nlm.nih.gov/pubmed/?term=Eileen+Martin+2018>

THEN Advisor Bruce Perry. (2 publications) **Beyond the ACE Score: Examining relationships between timing of developmental adversity, relational health, and developmental outcomes in children.**
https://www.researchgate.net/publication/328833363_Beyond_the_ACE_score_Examining_relationships_between_timing_of_developmental_adversity_relational_health_and_developmental_outcomes_in_children

THEN Advisor Stan Sonu and Audrey Stillerman. **Screening for Toxic Stress Risk Factors**
<https://www.ncbi.nlm.nih.gov/pubmed/30297291>

Audrey Stillerman article **Childhood Adversity and Lifelong Health** was chosen as the cover article for the Journal of Family Practice (November 2018)
<https://www.ncbi.nlm.nih.gov/pubmed/30481245>

- Recognition that the prevalence and diversity of adversity and trauma affecting development and health are much greater than the current medical model anticipates
- Evidence-based clinical practice recommendations
- Description of current neuroscience research supporting the pathway from adversity, through inflammation, to chronic illness
- Full-page summary comparing risk factors versus protective factors
- Glossary with tools for trauma-informed clinical care, emphasizing neuroregulation

