Health Equity and the Paradigm Shift in Occupational Safety and Health

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Occupational Health Equity Program (OHE)

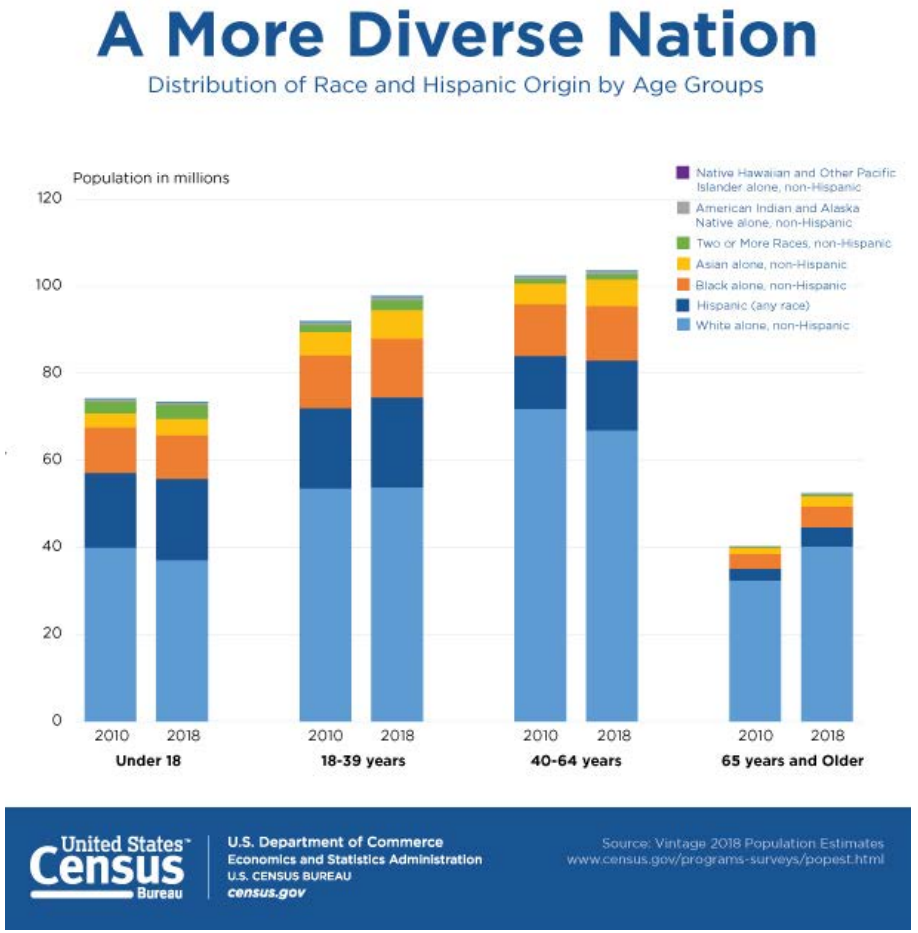
- Not all workers have the same risk of experiencing a work-related health problem, even when they have the same job. How we organize society impacts the distribution of positive and negative work-related health outcomes (OHE website).

- Some ways social and economic structures can lead to occupational health inequities include:
  - the overrepresentation of workers from certain groups in dangerous occupations
  - differential treatment on the job
  - Limiting access to resources that help protect workers on the job

- Mission: promote research, outreach, and prevention activities that reduce *avoidable* differences in workplace injury and illness that are closely linked with *social*, *economic*, and/or *environmental disadvantage*.

Demographics is Destiny

- Gender
  - Move to non-traditional occupations
- Age
  - Aging population
  - Working later in life
- Ethnic/Racial
  - Minorities = 40% of US population
  - By 2045 there will be no majority group in the US
- Nativity
  - Immigrants & their children
  - 88% of all growth in workforce over next 30 yrs.



Paradigm Shift in OSH

- OSH evolved into largely technical field
  - Identifying and eliminating workplace hazards
  - Focused on injury event/illness (biomedical model)
- Challenges to current paradigm
  - Broader understanding of relationship between work and health
  - Restructuring of work (industries, jobs, and technology)
  - Growing recognition of diversity in workforce
- Need to account for the wider social context
  - Expand and complement the reductionist view of cause and effect
  - Social, political, and economic interactions that contribute to health outcomes
  - Towards a biosocial approach to OSH (blog post)

Social Determinants of Occupational Health

- How we structure:
  - Society (identity/groups)
    - Race/ethnicity
    - Class
    - Gender
    - Nativity, etc.
  - Industries and organizations
    - Competitive bidding
    - Business size
    - Sub-contracting practices, etc.
  - Jobs
    - Employment arrangement
    - Shift work
    - Autonomy, etc.
- . . . Impacts the distribution of work-related benefits and risks.

Getty Images

Occupational Health Equity Program

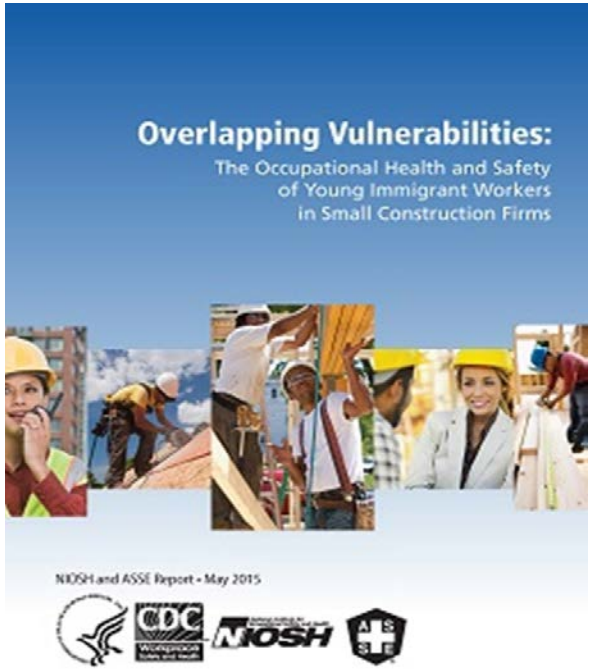
- Three key areas of interest
  1. Research targeting inequities in OSH outcomes
  2. Integrating an equity perspective across OSH
  3. Relationship between work and health inequities

1. Targeted OHE Research

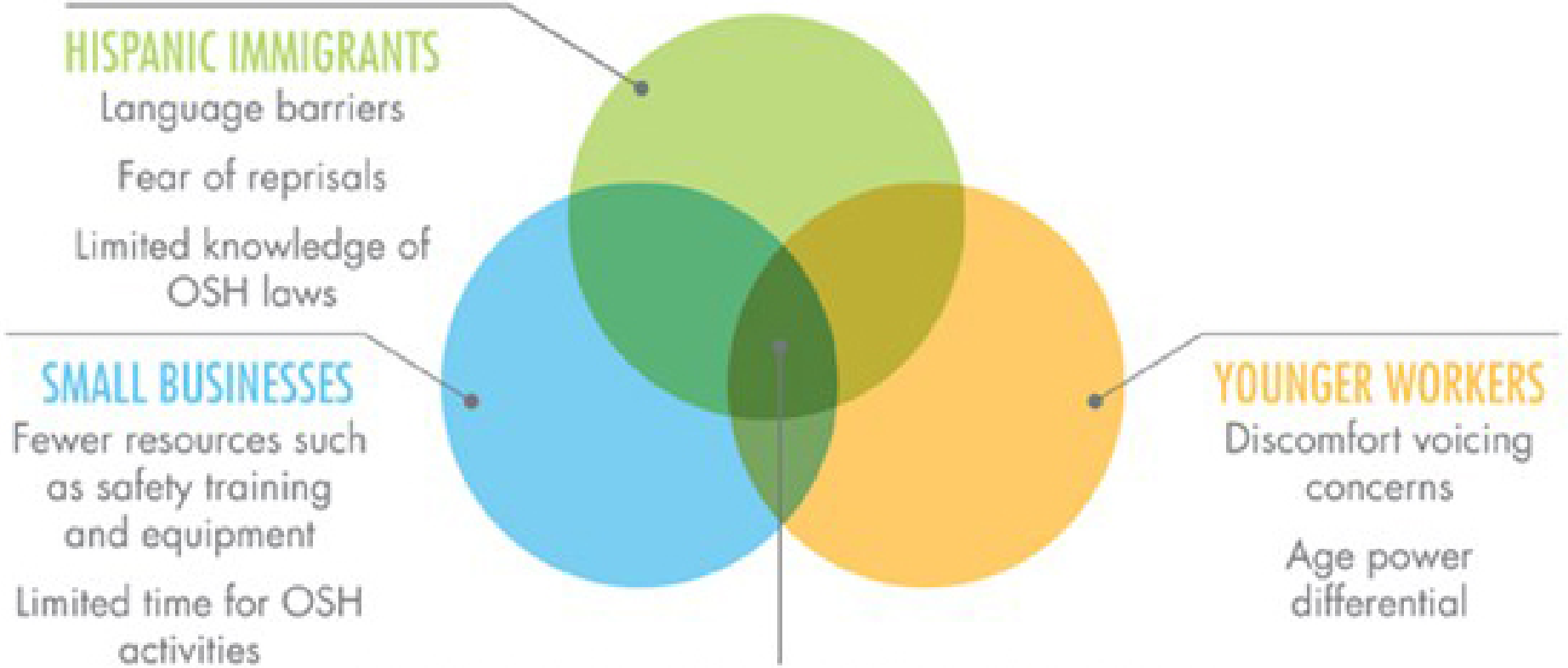
- Identify which disadvantages contribute to increased risk for which workers
- Explain how structural disadvantages materialize at the worksite and in the lives of these workers
- Develop and evaluate interventions

Overlapping Structural Vulnerabilities

- OHE research often focuses on a single characteristic
  - Depth of understanding
  - Individuals are not monolithic
    - Intersectionality
  - 2015 report with ASSP
    - Explore overlaps
    - Construction industry



EXAMPLES OF POTENTIAL BARRIERS TO IMPROVING OSH OUTCOMES



Follow-up Study

- Training for Hispanic immigrants by business size
  - Construction firms (N=265; 50 small, 215 large)
  - Hispanic immigrant workers in smaller firms
    - Less required training
    - Less tailored trainings
    - Less overall safety communication

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Differences in safety training among smaller and larger construction firms with non-native workers: Evidence of overlapping vulnerabilities

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Abstract

Collaborative efforts between the National Institute for Occupational Safety and Health (NIOSH) and the American Society of Safety Engineers (ASSE) led to a report focusing on overlapping occupational vulnerabilities, specifically small construction businesses employing young, non-native workers. Following the report, an online survey was conducted by ASSE with construction business representatives focusing on training experiences of non-native workers. Results were grouped by business size (50 or fewer employees or more than 50 employees). Smaller businesses were less likely to employ a supervisor who speaks the same language as immigrant workers ($p < .001$). Non-native workers in small businesses received fewer hours of both initial safety training ($p = .005$) and monthly ongoing safety training ($p = .042$). Immigrant workers in smaller businesses were less likely to receive every type of safety training identified in the survey (including pre-work safety orientation [$p < .001$], job-specific training [$p < .001$], OSHA 10-hour training [$p = .001$], and federal/state required training [$p < .001$]). The results highlight some of the challenges a vulnerable worker population faces in a small business, and can be used to better focus intervention efforts. Among businesses represented in this sample, there are deficits in the amount, frequency, and format of workplace safety and health training provided to non-native workers in smaller construction businesses compared to those in larger businesses. The types of training conducted for non-native workers in small business were less likely to take into account the language and literacy issues faced by these workers. The findings suggest the need for a targeted approach in providing occupational safety and health training to non-native workers employed by smaller construction businesses.

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Disclaimer

The findings and conclusions in this paper are those of the author(s) and do not necessarily represent the views of the National Institute for Occupational Safety and Health.

Next Step

- Identify Overlapping Risk Factors
  - Partner with Mexican Consular Network (Ventanillas de Salud)
    - 49 Consulates serving 1.7 million people annually
  - VDS health intake form
    - Already collects data on
      - Demographics
      - Health behaviors
      - Health screening results
    - Integrate work-related variables

Intervention Study

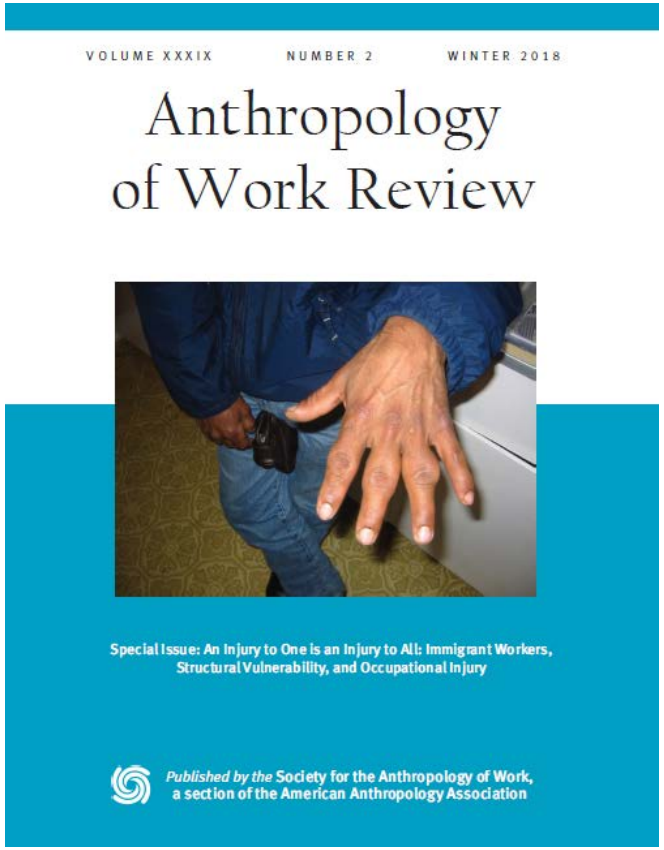
- Reach workers with existing infrastructure
  - *Ventanillas de Salud* (Health Windows)
    - 49 Mexican Consulates in US
    - Serves 1.7 million people annually
- Evaluate dissemination formats
  - Four tailored materials (website & blog)
  - Exit interviews (N=364)
    - Evaluated if respondents
      - Saw materials
      - Trusted the information
      - Safety attitude
      - Behavioral intentions
    - Generally found effective

2. Integrating Equity Perspective across Occupational Safety and Health

- Raise awareness/capacity of partners
- Address structural exclusion
- Increase the adoption of inclusive methods

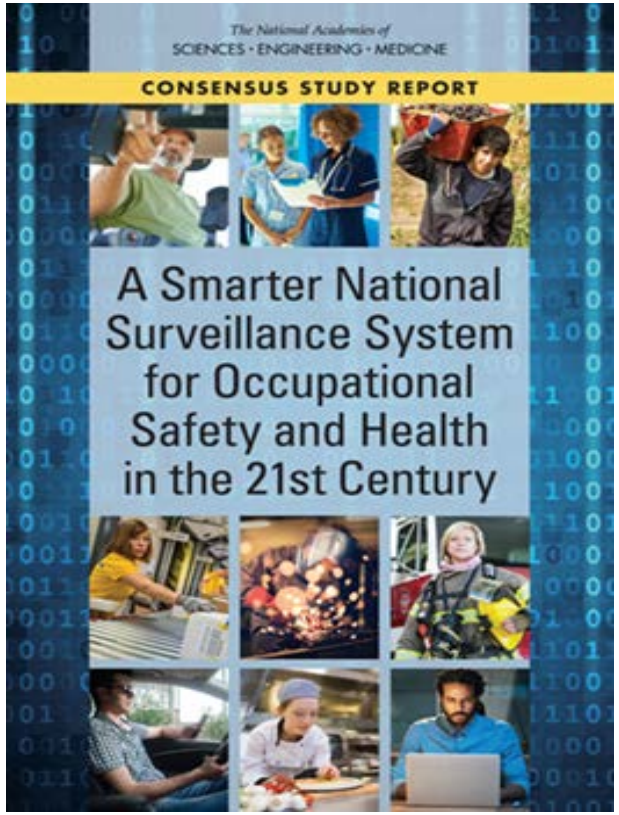
Raise Awareness

- All OSH efforts need to account for workforce diversity, not just those focusing on immigrants/minorities
  - Culture shift from individual concern to institutional value
- Paradigm shift to biosocial
  - SDOH/Equity is a central axis
  - Collaboration
    - Total Worker Health
    - Future of Work
    - Blueprint for Action
  - Publications and presentations
    - OHE Blog



Addressing Structural Exclusion

- Structural Invisibility
  - SDOH variables are often absent from occupational health data collection instruments
  - OHE Review of NIOSH systems
    - Race
    - Ethnicity
    - Nativity
    - Language
  - Identify gaps and opportunities
- Institutionalized Exclusion
  - Limited anthropometric data for women and minorities
    - Existing PPE & New Technology
  - Promotion of alt size PPE
    - Seven major manufacturers
    - Images 4% non-White; 7% Female



Promote Inclusive Methods

- Need to account for
  - the diversity in the workforce
  - bias of the researcher
  - at all stages of research
- Inclusion is not just ethical, it makes for better science
- Not as easy as it looks
  - More than just adding items

Example

I: “Did the results of your TB test come back positive?”

R: “Yes”

I: “Are you taking your medicine?”

R: “No.”

Scientific Finding – Latino immigrants testing positive for TB are non-compliant.

Example – Follow-up

I: “What does a positive result mean?”

R: “It’s a good thing. That I’m not sick. Why would I take medicine? ”

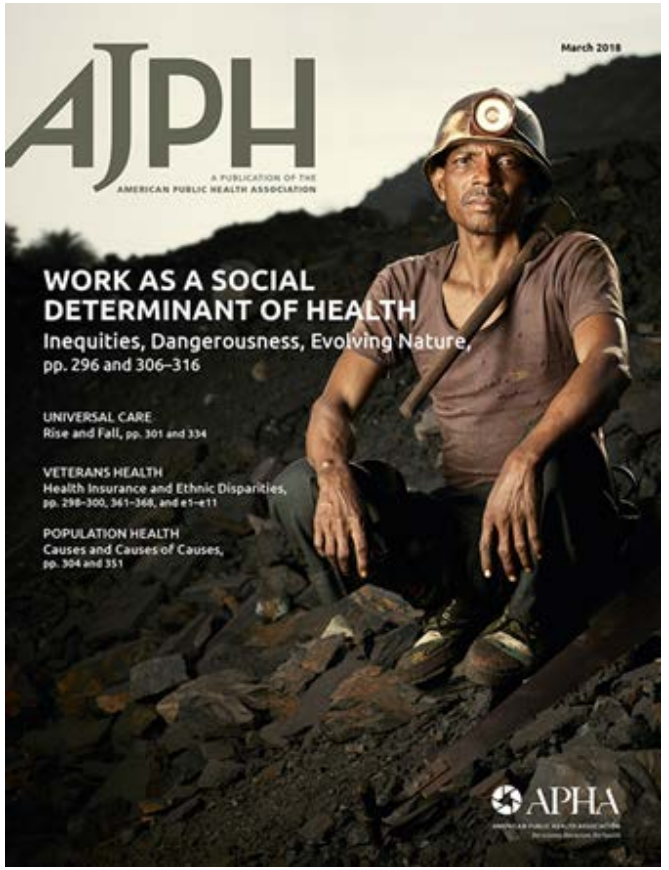
- Result:
  - Different understandings.
  - Unexamined assumptions allows the perceptions of the investigator to remain the de facto norm and become reified as scientific fact.
  - Ensure conceptual equivalence - cognitive testing

3. Work and Health Inequities

- Conceptualize work as a Social Determinant of Health Inequities
- Evaluate current practices

Conceptualize Work as SDOH

- Work/nonwork-related conceptualization separates OSH from Community Health
- Work-related variables are largely absent from health equity research
- Work not only impacts health but other SDOH
- Papers and publications
  - Work as an Inclusive Part of Health Inequities Research
  - Leveraging the Domain of Work to Improve Migrant Health
  - CDC Grand Rounds
    - SDOH and AI/AN Suicide - 2019
  - SDOH Conversation with Authors
    - CDC Webinar - 2020



Evaluate Current Practices

- OHE review of key public health data systems
  - Identify work-related variables
  - Develop taxonomy of work-related variables
    - Industry and occupation
    - Employment status
    - Job satisfaction
    - Job characteristics
  - Review if/how data is/could be used
    - Highlight successful examples

Central Challenge

- A central challenge to securing occupational health equity is that, by virtue of how inequities are created in societies, the same social structures that contribute to health inequities also operate and are reproduced by public health organizations.

- “Culture hides more than it reveals and strangely enough, what it hides, it hides most effectively for its own participants.

- The real challenge is not to understand foreign culture but to understand our own.”

  - Edward Hall

Dynamic of Diversity: More than Just Differences

- Need a conceptual model
  - Inequitable distribution of resources, injury and illness
  - Asymmetrical power relationships along social axes such as race, ethnicity, class, nativity, etc.
  - Power and privilege
- Institutional arrangements not personal flaws
  - Embedded in social structures
    - Focus on impact not intentions
  - Goal is to recognize and change these arrangements
    - Where you stand impacts (i.e. social position) what you see
- Perspective of Privileged as the Norm
  - Sanctioned and reinforced by media, laws, institutional practices etc.
  - Privilege is often unacknowledged and understudied.
- Culture is dynamic – continually changed and reinforced

Developing Intuitional Capacity

- Three key areas
  - Personnel
    - Diverse perspectives
      - personal backgrounds
      - professional backgrounds
    - Trained to acknowledge social position & perspective
  - Practices
    - Evaluate current practices from data collection to interventions
    - Institutional culture shift
      - From concern of a few to institutionalized practice
      - Core value that permeates the field
  - Partnerships – OHE model
    - ‘Hard to reach’ vs. hardly reached
    - Plug into existing infrastructure/tailor to current activities
    - Build Long-term relationships

- How do we?...
  - Raise awareness of the need for a biosocial approach among OSH researchers and professionals
  - “sell” work as a SDOH to public health researchers concerned with equity
  - Leverage COVID-19 and social discourse on inequality to further advance an equity perspective
  - Identify new partners and champions

OHE Team

- Leadership
  - Paul Schulte, Program Manager
  - Michael Flynn, Coordinator
  - Andrea Steege, Assistant Program Coordinator
  - Laura Syron, Assistant Program Coordinator
  - Jackie Siven, Team Member
- Workgroup
  - Barb Alexander, Toni Alterman, Kendra Broadwater, Tania Carreon-Valencia, Pietra Check, Tom Cunningham, Liz Dalsey, Wes DuBose, Don Eggerth, KC Elliott, Kaori Fujishiro, Bridgette Garrett, Liz Garza, Jim Grosch, Rebecca Guerin, Sarah Hatcher, Candice Johnson, Harpriya Kaur, Katlin Kelly-Reif, Jennifer Lincoln, Leslie MacDonald, Cammie Chaumont Menendez, Kyle Moller, Bermang Ortiz, Alejandra Ramirez-Cardenas, Rashaun Roberts, Lakshmi Robertson, Rosa Rodriguez-Acosta, Nura Sadeghpour, Sharon Silver, Christina Socias-Morales, Kerry Souza

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Thank you

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