



# **A model of “breakthrough change” in workplace health & safety performance**

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IWH Plenary

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## Acknowledgements

### Research team members:

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- Subrata P

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- Workplace recruiters: WSPS, OSACH and MHSOA (both now part of PSHSA)



## Plenary messages

- Researchers used an innovative approach, by focusing on organizations showing the largest improvement in OHS
- The model of “breakthrough change” (BTC) focuses on the process of change and involves 12 elements
- There may be implications of the BTC model for your OHS professional practice
  - Audience participation alert!
- The model is based on exploratory results and has limitations
  - May be revised as a result of future research



## Original main research question (rephrased)

- What critical success factors are common among firms making large improvement in OHS performance?



## Inspiration

- So many workplace-based studies of OHS interventions with small, hard-to-detect effects
- Yet all workplace stakeholders want to see large change
- And trade/practitioner literature with anecdotal stories of big turnarounds in OHS



## Research gap

- Past research and practice on OHS performance tells us how high performing organizations differ from low performing ones
  - Effective controls for OHS risks
  - Sufficiently developed OHS management system
  - Culture and climate favourable to OHS
  - Proactive approach
- Does not address the *process of change* from low to high firm performance



## Our two stage research approach

- 1) Find organizations that made the largest improvement in OHS
  - Screen WSIB statistics
  - Brief validation interviews
  
- 2) Identify what was important in bringing about the improvement
  - On-site interviews, document review, observations
  - Review MOL records of enforcement activity

## Vision for the long-term: **Positive deviant strategy**

1) Find organizations that made the largest improvement in OHS

### ➔ **Positive deviants**

- Members of a population exhibiting norm-defying, yet socially desirable behaviour

2) Identify what was important in bringing about the improvement

3) **Develop interventions based on the findings**





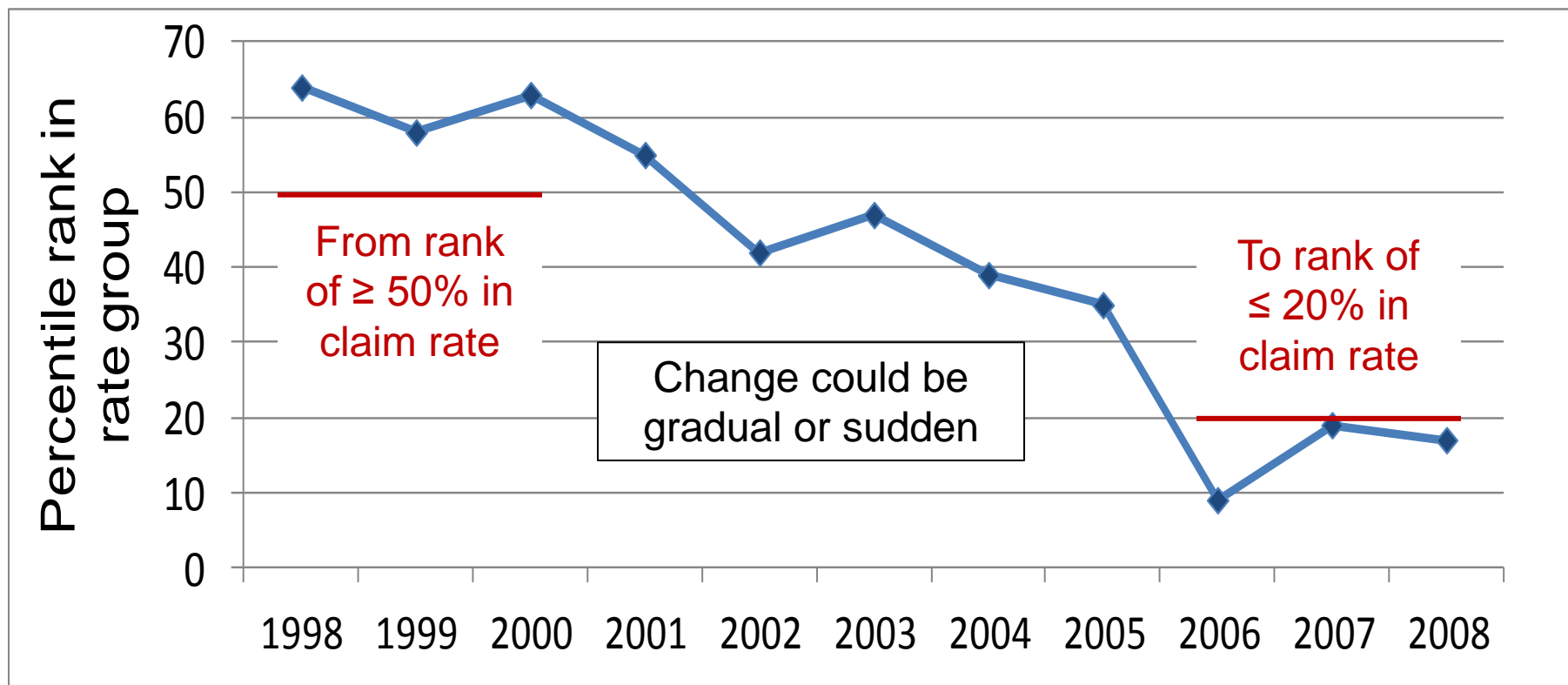


## Positive deviant strategy: background

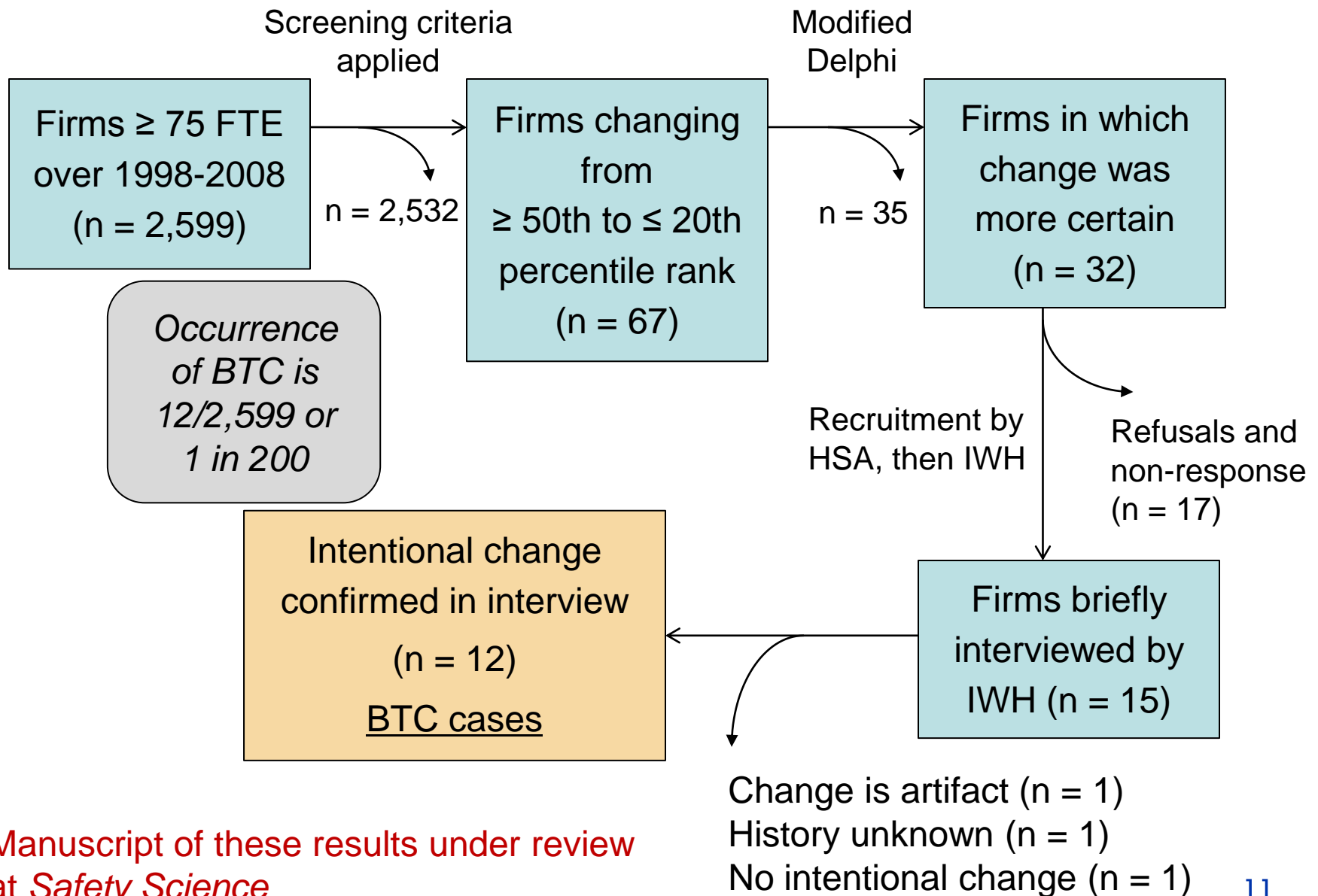
- PD strategy is an efficient way to develop effective interventions in complex environments
  - *Marsh et al. The power of positive deviance. British Medical Journal 2004;329:1177-9.*
  - *Lavine M. Positive deviance: A metaphor and method for learning from the uncommon. In: Cameron KS, Spreitzer GM, eds. The Oxford Handbook of Positive Organizational Scholarship. Oxford University Press, 2012.*
  - *Positive Deviance Initiative, Tufts University*



## Searching for positive deviants in WSIB statistics



# Searching for positive deviants – all 3 steps



Manuscript of these results under review  
at *Safety Science*



## Purposeful selection of cases for in-depth study

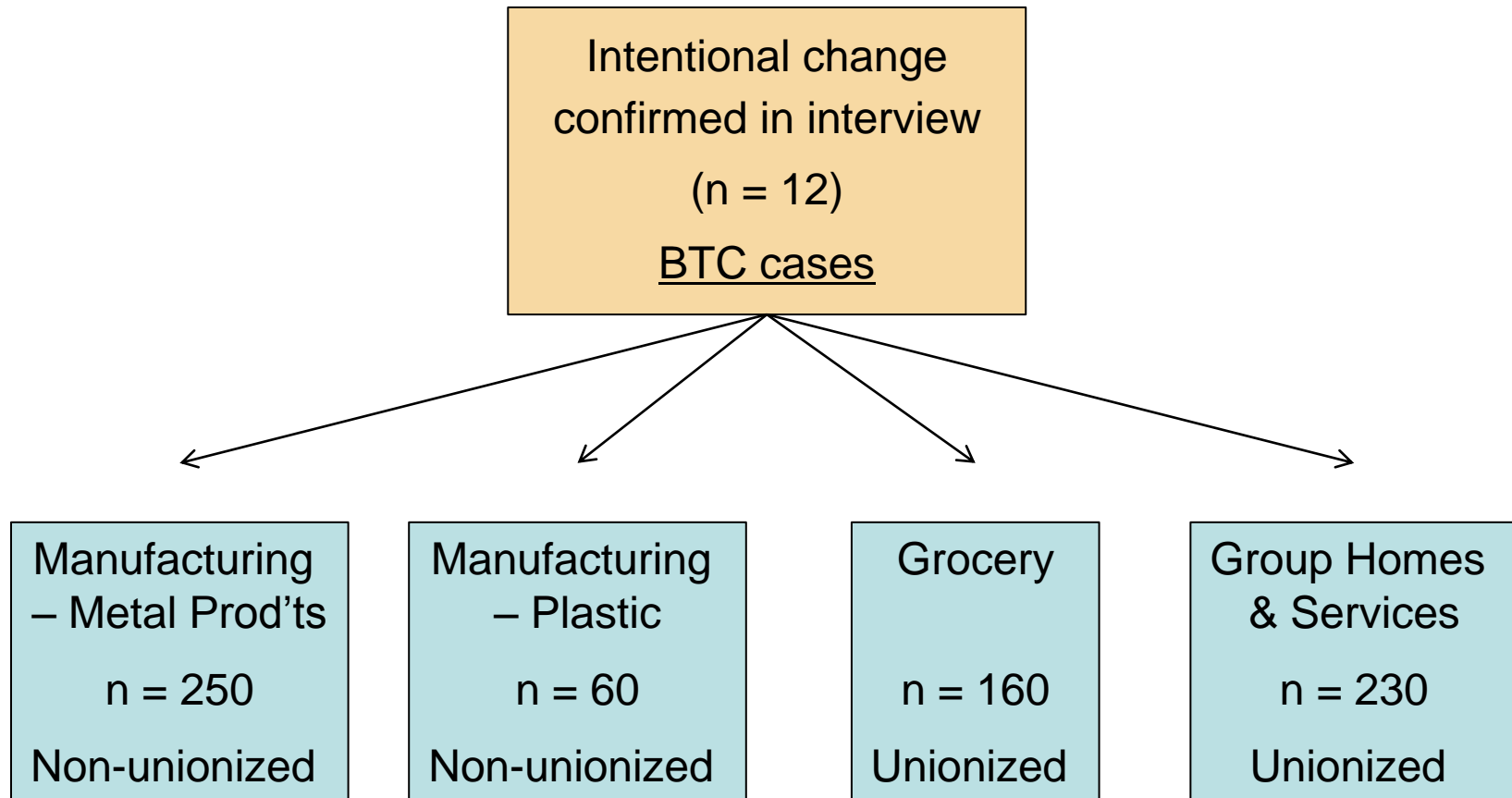
Intentional change  
confirmed in interview

(n = 12)

BTC cases

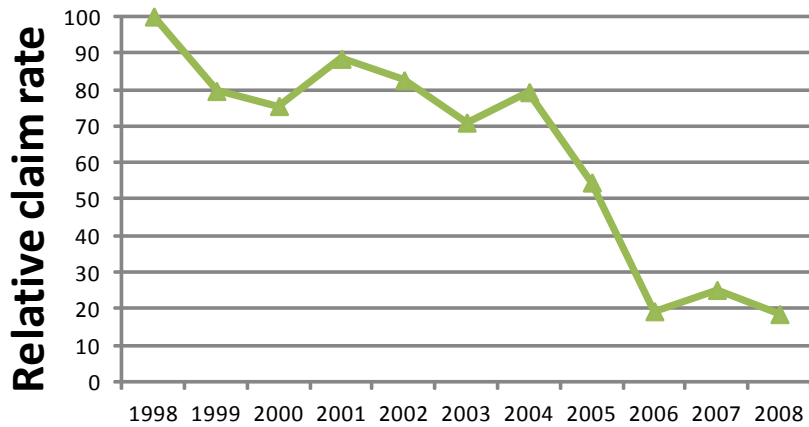


## Purposeful selection of cases for next phase of work

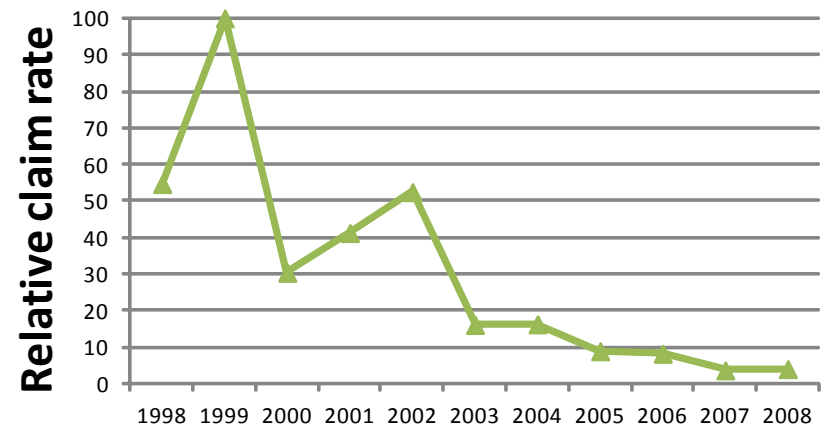


# BTC cases, total claim rate 1998-2008, each relative to their respective maximum

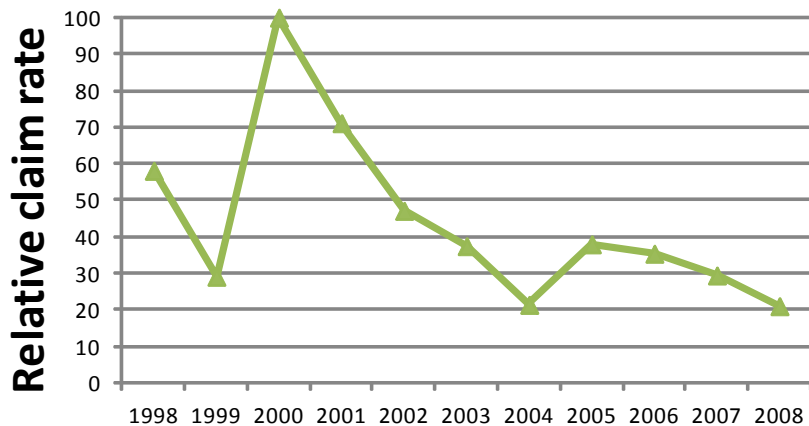
## Manufacturing - metal products



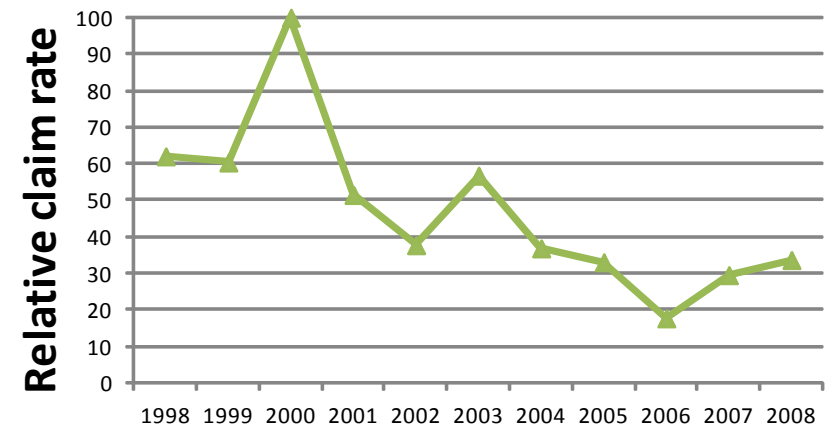
## Manufacturing - plastics



## Grocery



## Group homes & services





## Analysis of case data

- Data from worksite (interviews, documents, observ'ns) and MOL
- Text coded with an *a priori* framework, expanded as required
- Within-case analysis to understand specific story
- Cross-case analysis to identify commonalities across 3-4 cases
  - 11 Breakthrough Change (BTC) themes/elements



## Conceptual framework prior to analysis

- OHS research literature on determinants of firm OHS performance
- OHS practitioner-based mgmt. standards, e.g. CSA Z1000
- Management models of organizational change
  - *Armenakis AA, Bedeian AG. Organizational change: a review of theory and research in the 1990s*
  - Content-oriented
    - *Burke W, Litwin C. A causal model of organizational performance and change. J of Management 1992;18:523-45.*
  - Process-oriented
    - *Kotter J. Leading change: why transformation efforts fail. Harvard Business Rev 1995;73:59-67.*
  - Context- oriented

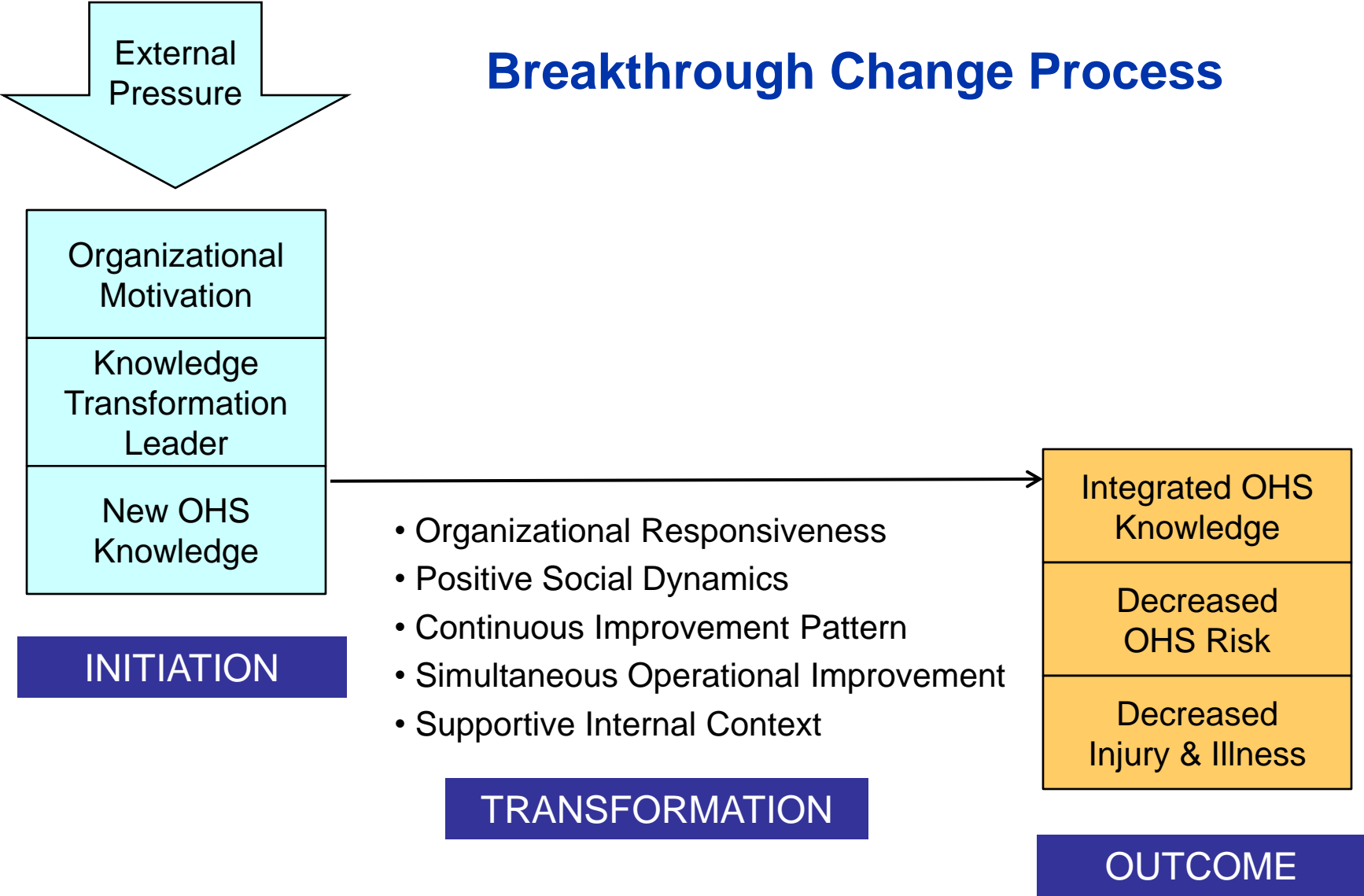




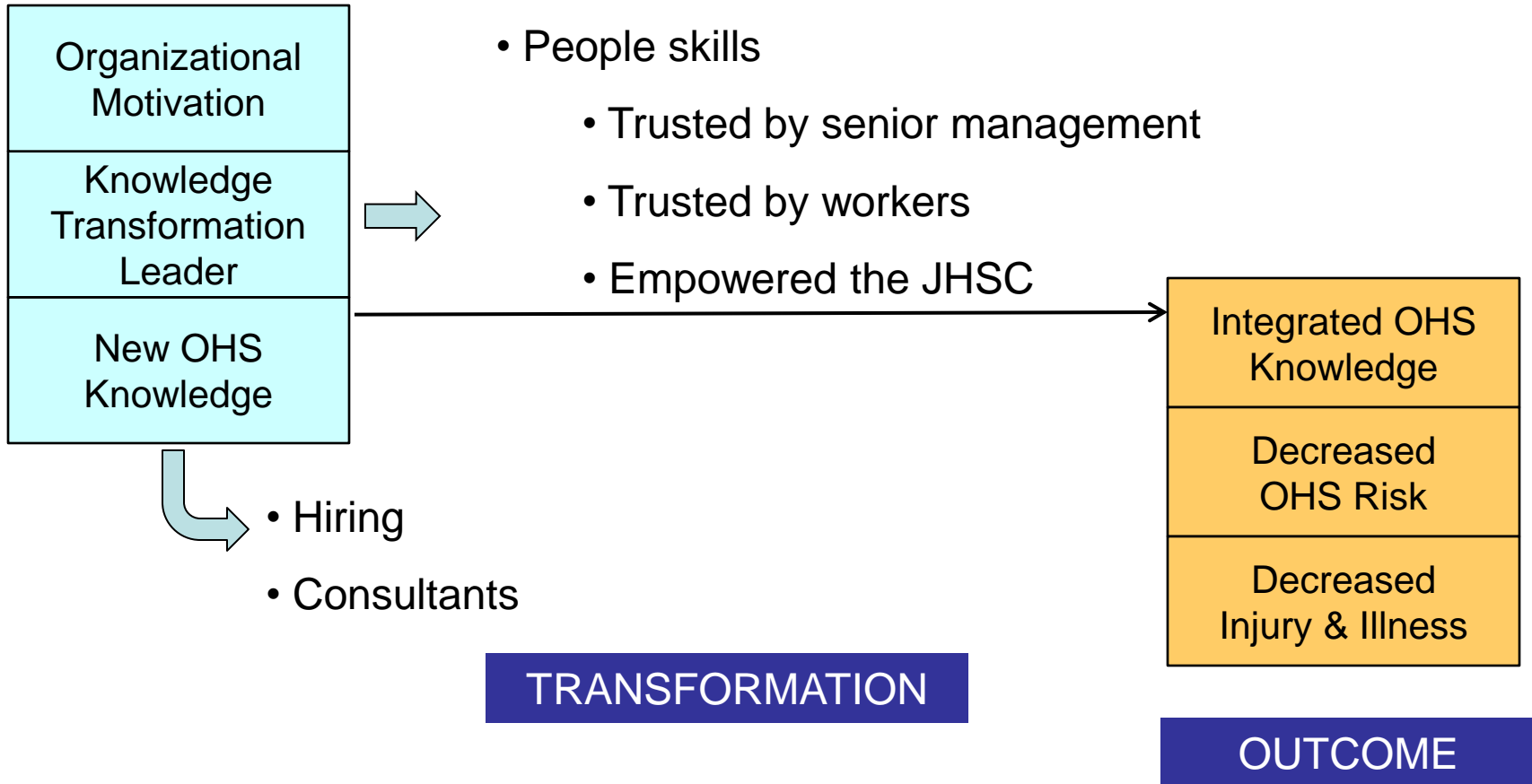
## Conceptual framework expanded following analysis

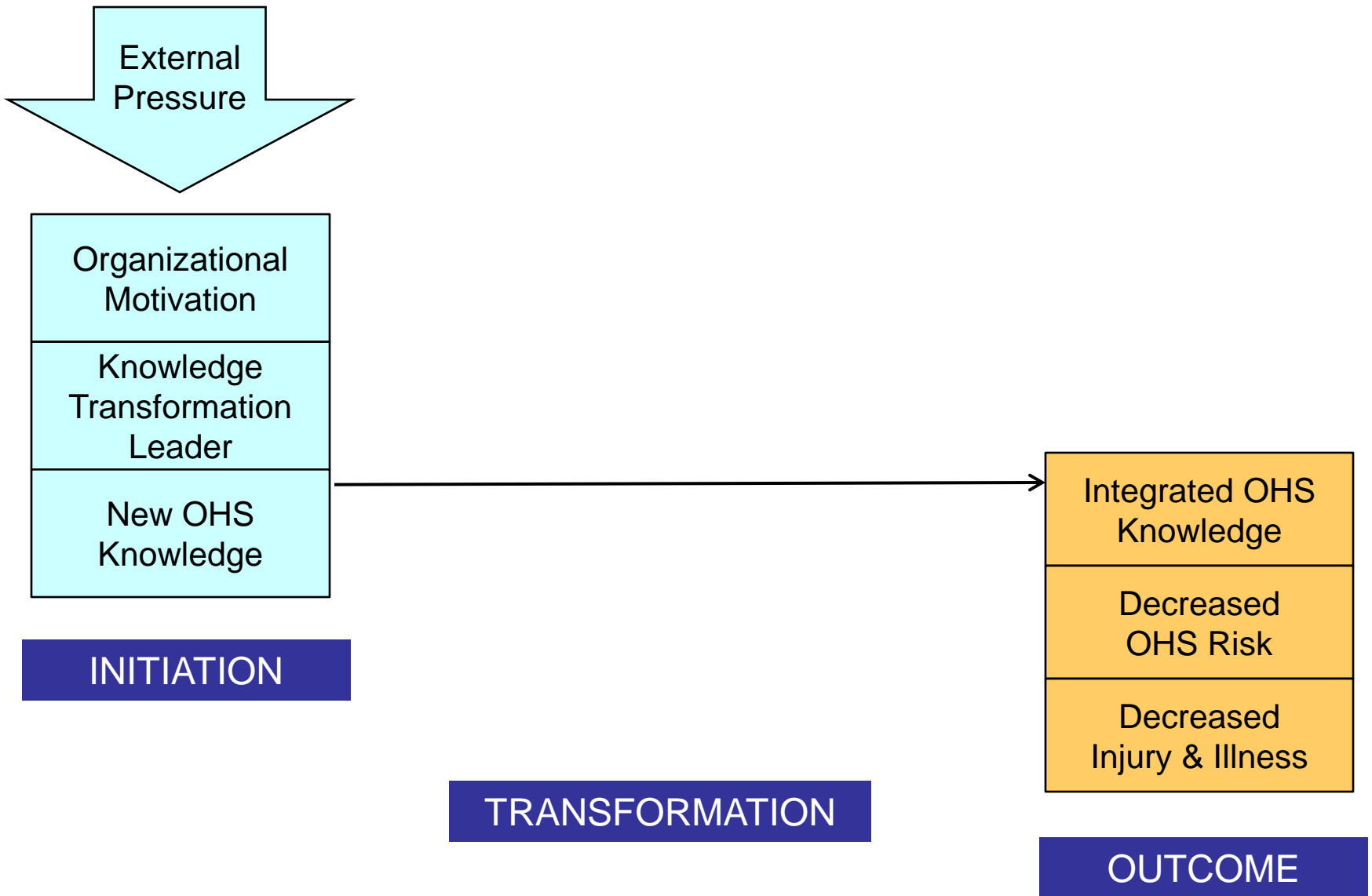
- Organizational learning
  - *Huber GP. Organizational learning: the contributing processes and the literatures. Organization Sci 1991;2:88-115.*
  - *Argote L, Miron-Spektor E. Organizational learning: from experience to knowledge 2011;22:1123-37.*
- Positive organizational scholarship
  - *Cameron KS et al. (eds) Positive Organizational Scholarship: Foundations of a New Discipline. San Francisco: Berrett-Koehler, 2003.*
  - *Cameron KS, Spreitzer GM (eds) The Oxford Handbook of Positive Organizational Scholarship. NY: Oxford University Press, 2012.*

# Breakthrough Change Process



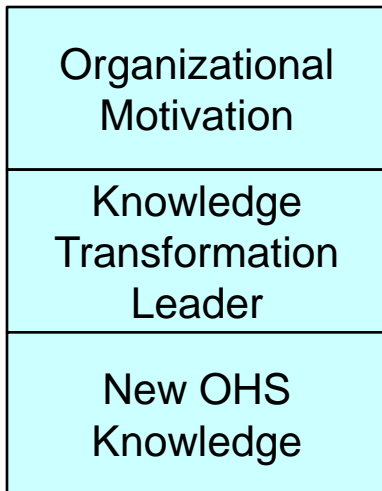
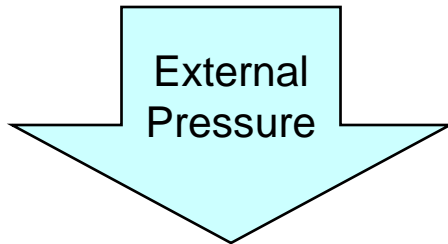
- Received/embodied new OHS knowledge
- Mobilized organizational skills for knowl. transformation
- Had the power (formal, informal) to act
- People skills
  - Trusted by senior management
  - Trusted by workers
  - Empowered the JHSC



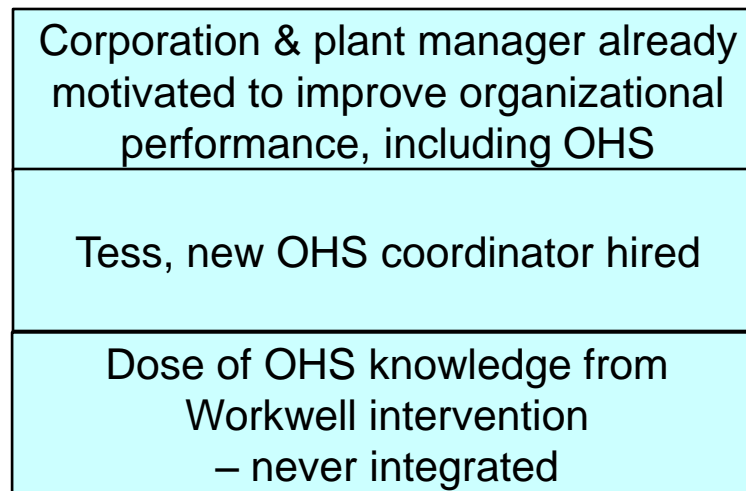
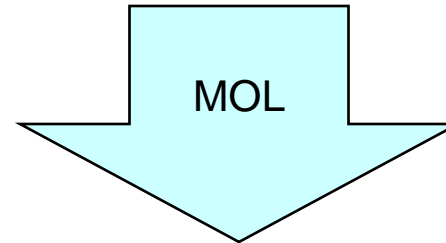




## Initiation: Manufacturing – Metal Products



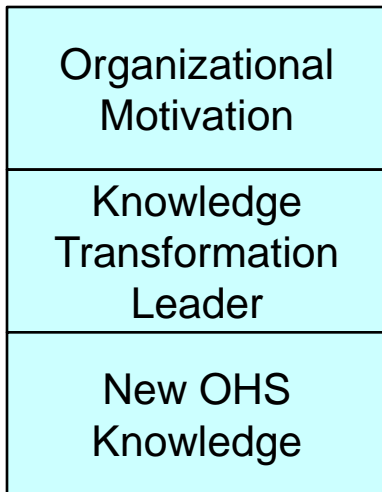
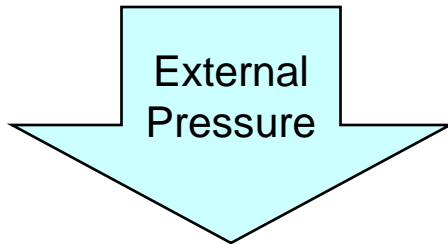
INITIATION



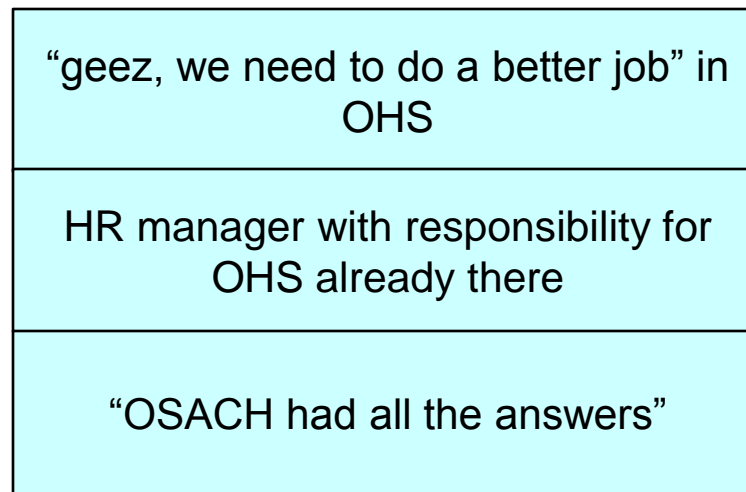
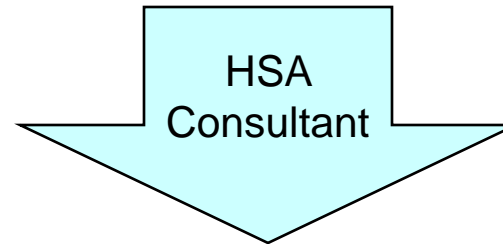
INITIATION



## Initiation: Group homes & community services



INITIATION



INITIATION



## External pressure: varied sources

	<b>Metal Prods</b>	<b>Plastics</b>	<b>Grocery</b>	<b>Group Homes</b>
<b>Specific source of external pressure</b>	MOL HRF inspection w/ call to corporate head office	Customer (chemical company) requirements	Serious injury to 19 yr old in like grocery. Workwell audit failure in like grocery.	HSA consultant convinced them that their OHS system was sub-par and injuries took \$ away from clients



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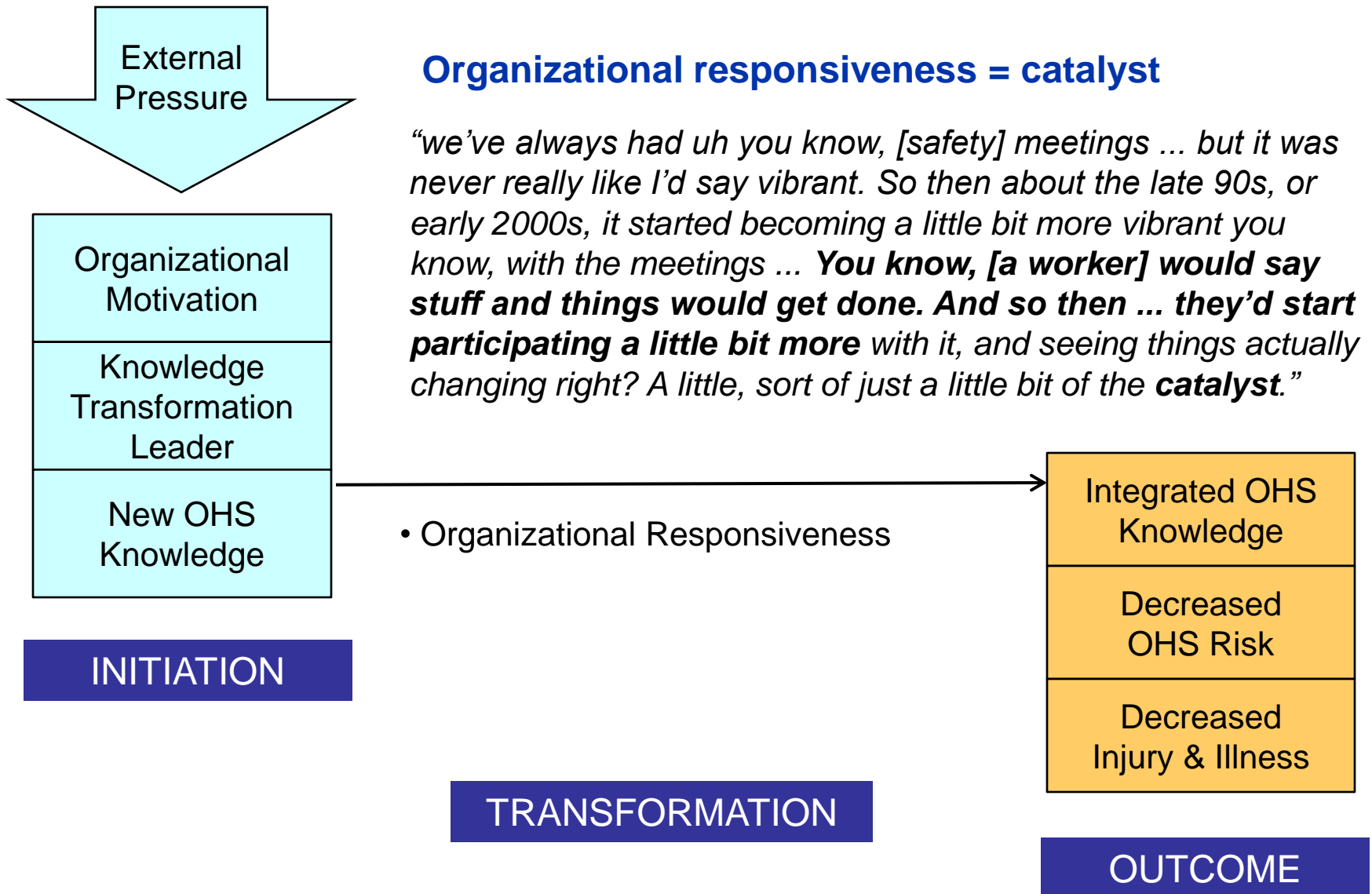
- Covers all 3 categories of Vedung's typology

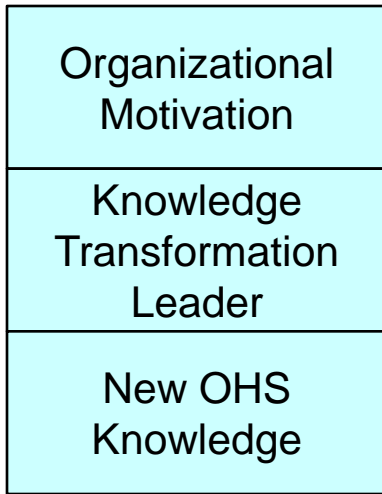
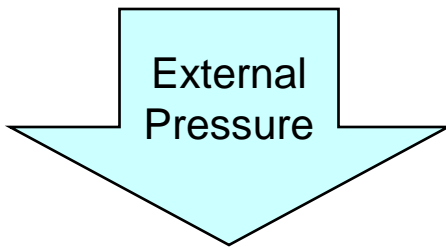
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<b>Vedung category</b>	Stick	Carrot	Sermon/ Stick	Sermon

Vedung E. Policy instruments: typologies and theories. In: Carrots, sticks & sermons – policy instruments and their evaluation, 1998.

## Organizational responsiveness = catalyst

*“we’ve always had uh you know, [safety] meetings ... but it was never really like I’d say vibrant. So then about the late 90s, or early 2000s, it started becoming a little bit more vibrant you know, with the meetings ... **You know, [a worker] would say stuff and things would get done. And so then ... they’d start participating a little bit more with it, and seeing things actually changing right? A little, sort of just a little bit of the catalyst.**”*

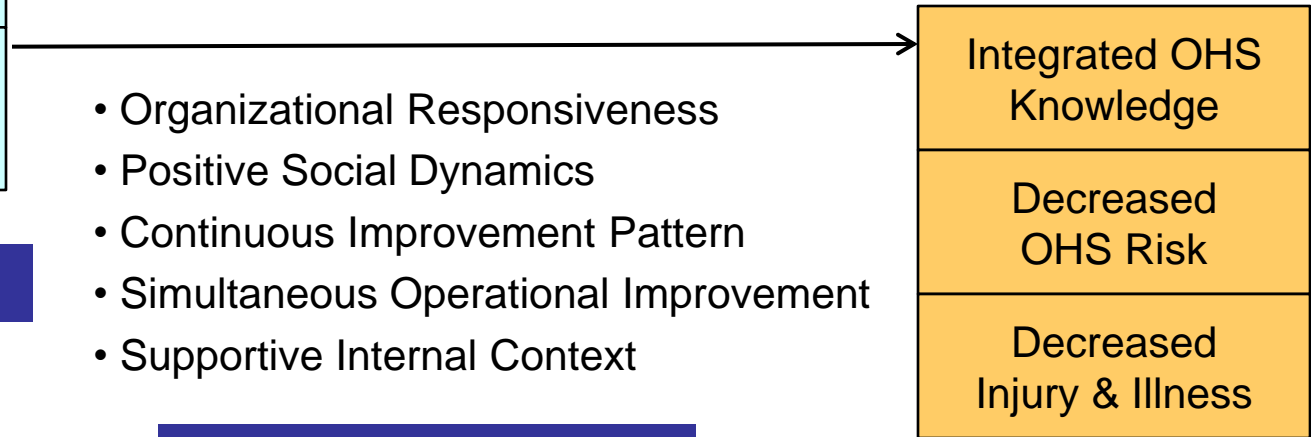




INITIATION

## Positive social and psychological dynamics

- Energizing interactions on JHSC → productive ends
- Workers empowered through OHS
- Individual development aligned with OHS improvement
- Workers “passionate” about safety
- Transformational leadership example in senior leadership

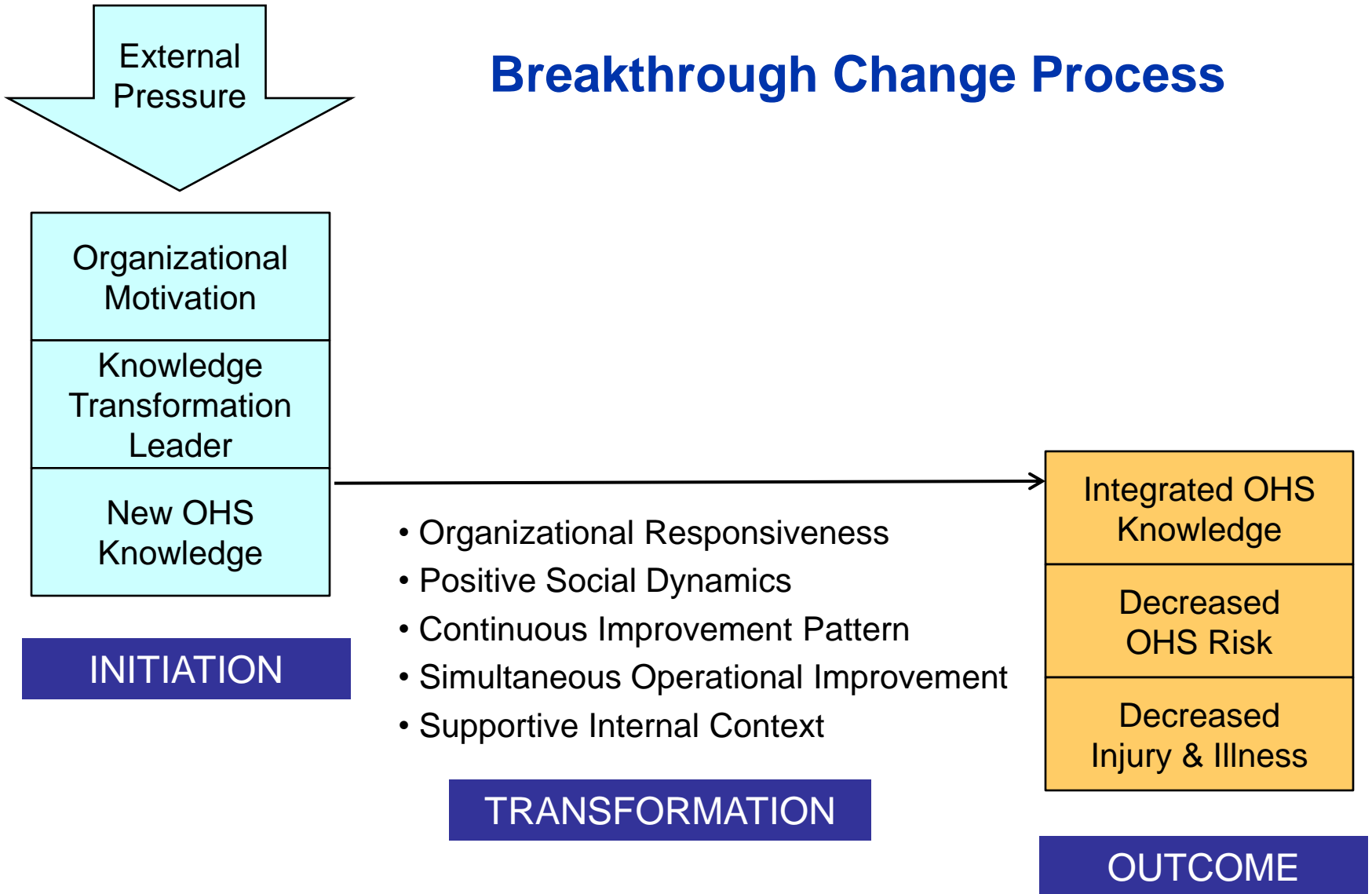


- Organizational Responsiveness
- Positive Social Dynamics
- Continuous Improvement Pattern
- Simultaneous Operational Improvement
- Supportive Internal Context

TRANSFORMATION

OUTCOME

# Breakthrough Change Process





## Audience discussion: Two questions

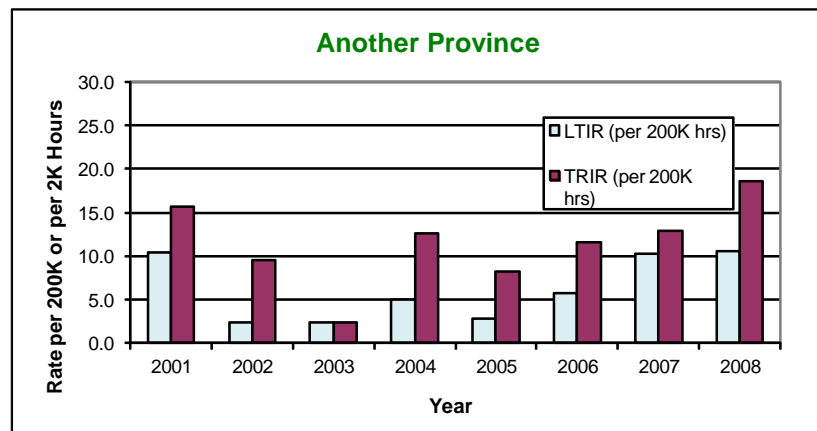
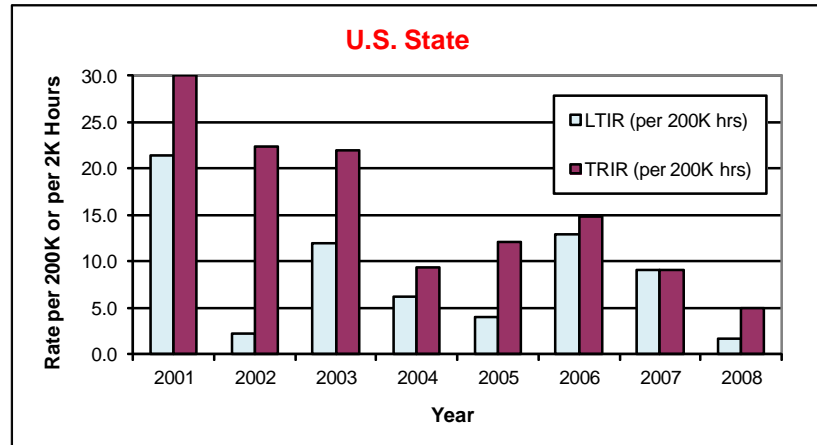
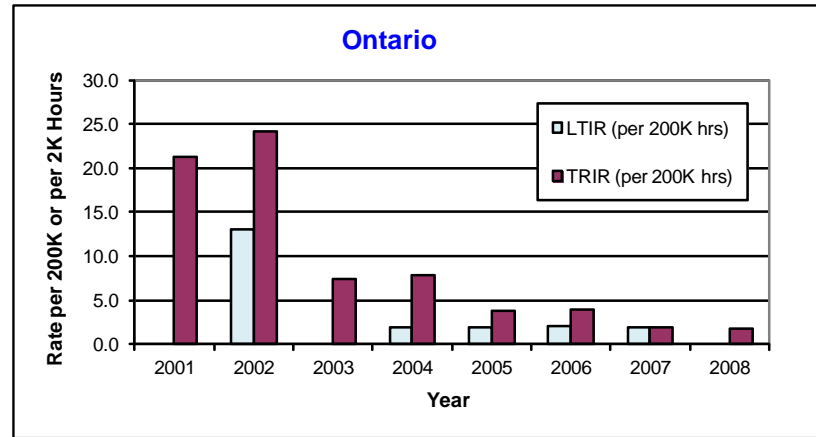
- 1) Does the BTC model “ring true” for you? How?
- 2) What implications, if any, does the model have for your OHS professional practice?



## Limitations of the research

- Small sample – only four cases
- Long recall period → error, missing data, uncertainty in dates
- No contrasting “no-BTC” or “stay-the-same” cases to test the validity of the BTC factors
  - Addressed in part by BTC II + BTC III (4 contrasting cases)

# BTC II: Study of Sister Plants



# BTC III: Testing BTC model with matched stay-the-same firms

BTC Firms  
from  
BTC I study

Manufacturing  
– Metal  
  
n = 250  
  
Non-unionized

Manufacturing  
– Plastic  
  
n = 60  
  
Non-unionized

Grocery  
  
n = 160  
  
Unionized

Group Homes  
& Services  
  
n = 230  
  
Unionized

Matched  
Stay-the-same  
Firms

No recruitment achieved  
in for-profit sectors

Group Homes  
& Services  
  
n = 270  
  
Unionized

Group Homes  
& Services  
  
n = 325  
  
Unionized





## Our thoughts for future work




- Additional cases, both BTC cases and comparison cases
  - New time frame, additional sectors/jurisdictions
- Develop quantitative, questionnaire-based measures – potential leading indicators
  - e.g. organizational responsiveness
- Cohort of firms poised for broad OHS change, e.g. Safety Groups, accreditation, followed over time
  - Qualitative and quantitative methods
- Long term: intervention development, implementation & evaluation
  - Last step of the positive deviance strategy



# Your further thoughts?



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