

SYSTEM DYNAMICS AND THE POWER OF A TRANSDISCIPLINARY APPROACH TO CSEC

San Diego County
October 17, 2018



SOCIAL PROBLEM



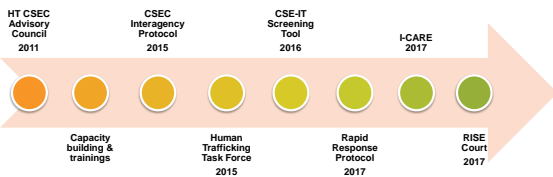
HUMAN TRAFFICKING & COMMERCIAL SEXUAL EXPLOITATION OF CHILDREN

- Ground breaking local study highlighted our region
 - Estimated \$810 million in revenue for traffickers/exploiters in San Diego county
 - Average age of entry in SD = 16 years old
 - 110 gangs were identified as involved in prostitution in addition to other criminal activities

KEY MILESTONES



SAN DIEGO COUNTY



ROLE OF PARTNERS



APPROACHES TO WORK



TRADITIONAL

Multidisciplinary: people from different disciplines working together, each drawing on their disciplinary knowledge.

INNOVATIVE

Transdisciplinary: creating a unity of intellectual frameworks beyond the disciplinary perspectives.

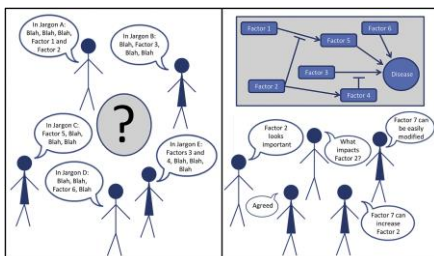


Stember, M., 1991 ⁵

TRANSDISCIPLINARY APPROACH



WHY USE A TRANSDISCIPLINARY APPROACH?



Cross-Disciplinary Communication Without Visual Aids

Cross-Disciplinary Communication With Visual Aids

SYSTEM DYNAMICS



CSEC in San Diego

System Dynamic Modeling with Stakeholder Group Model Building, And Computer Simulations

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WHAT IS SYSTEMS DYNAMICS?



System Dynamics is a method for understanding, designing and managing change. It models the *relationships* between elements in a system and how these relationships influence the *behavior* of the system over *time*.

We often find that problems have their roots in well intentioned policies that have unintended consequences, or don't pay attention to *feedback*, *non-linear* interactions, *delays*, and *accumulations* over *time*.

Group Model Building is a participatory method for involving various stakeholders in the process of understanding and changing systems from the perspective of the *endogenous* sources of system behavior.

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THE CHARGES



First Identify the Problems and Barriers: then the Solutions

The work must be:

1. Evidence Based
2. Stakeholder Driven
3. Transdisciplinary

The Solutions Must Be:

1. Operationally Sound
2. Sustainable
3. Affordable

Models that include cows...
The Importance of
Operational Thinking



Julien Dupré, Au pâtreage, 1882

SYSTEM DYNAMICS



Group Model Building with Stakeholder Groups

Everyone has a Different World-view, or “Mental Model”

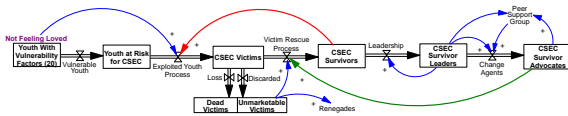


As with blindfolded people describing an Elephant...
all the descriptions are real, and all of them are important

SYSTEM DYNAMICS



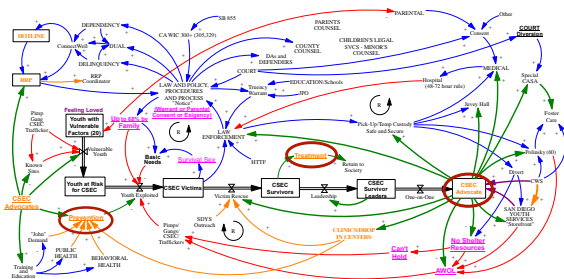
CSEC in San Diego: Stock and Flow Model “Backbone”



CONCEPT MODEL



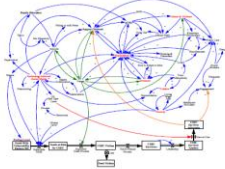
San Diego CSEC *Concept Model* Solution Set



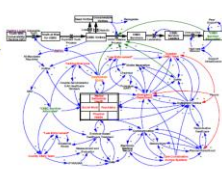
STAKEHOLDER MODELS



Social Workers



UCSD Medical Professionals



Law Enforcement



District Attorneys



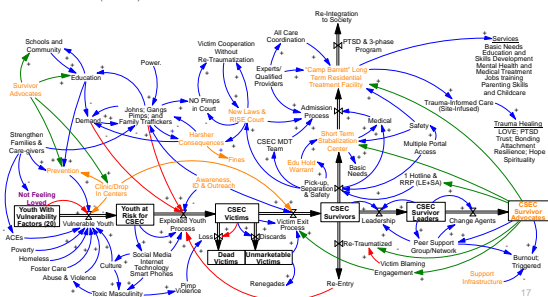
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MERGED STAKEHOLDERS MODEL



Then: Merging the Stakeholders' Models

New System-Wide Approach & Integration System-Wide Research & Data (RTF&ADAM) System-Wide Communication System-Wide Collaboration System-Wide Data & Information Sharing System-Wide Training Inter-Agency Trust Sustainable Funding

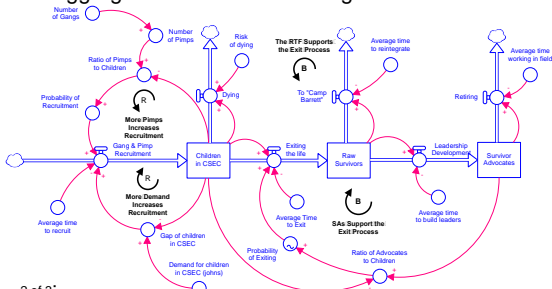


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STOCK & FLOW MODEL



An Aggregated Stock & Flow Diagram for Simulations



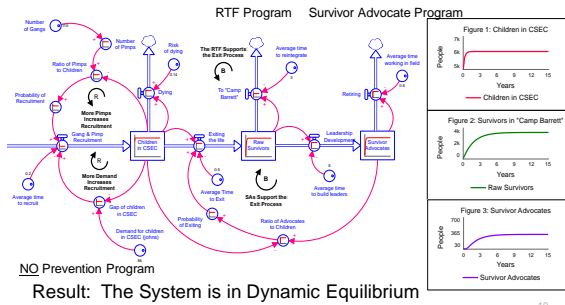
2 of 3:

No Prevention Program RTF & Reintegration Program Survivor Advocate Program

MODEL SIMULATION TRIALS



Computer Simulations, 2 of 3 Programs, 10-150 years



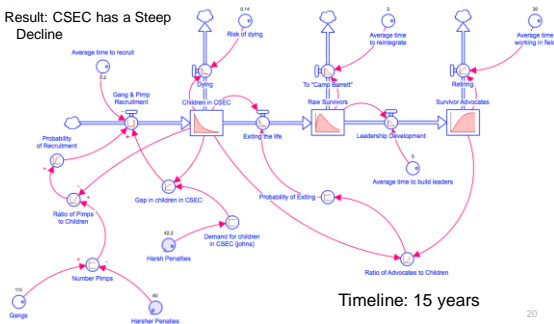
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HOW IT WILL WORK



All 3: Prevention + RTF + Survivor Advocates

Result: CSEC has a Steep Decline



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INNOVATIVE PRACTICE



SO, THE CHARGES...

The programs developed can be:

1. Evidence Based
2. Stakeholder Driven
3. Transdisciplinary

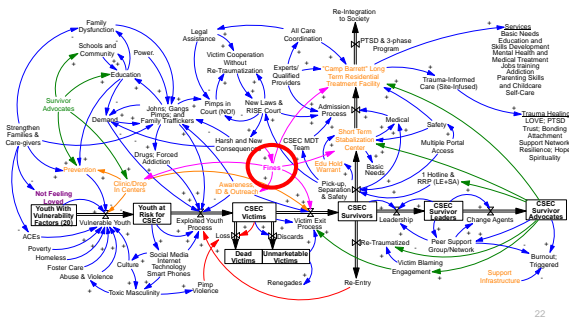
AND:

1. Operationally Sound
2. Sustainable

But are they Affordable?

ALL stakeholders identified **FUNDING** as the main issue

Estimated Program Cost, 1st-year: **\$250,000,000**



TRAFFICKING FINES: CALIFORNIA

Using Carpenter and Gates' Research Data

At Trafficking Fines (patterned after CA traffic fines) of \$250 - \$500

The New *Annual* Revenue Stream to the County is:

1.0 – 4.0 Billion Dollars

Thus, it is certainly affordable.



COMMUNICATION VISUAL



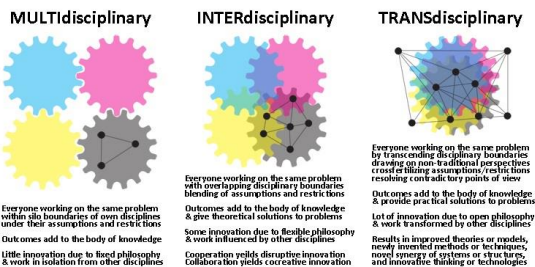
DIAGRAM

- Draw a diagram of what it would look like to build a transdisciplinary team that includes all the major stakeholders who are part of solving the solution.

TRANSDISCIPLINARY



WHY USE A TRANSDISCIPLINARY APPROACH?



TRANSDISCIPLINARY



IMPLEMENTATION

- What are the implementation issues for each sector?
- In terms of being transdisciplinary, what questions do we need to ask?
 - Do we need a lead agency? Or a lead champion/person/coordinator?
 - Funding limitations?
 - **Capability trap** example: shifting resources reduces the capability of who and how will the work be done
 - The revenue comes through the fines to pay for the SMEs (buy these services from the various sectors); build back the infrastructure internally until we have enough money to create an entirely new structure, create a transdisciplinary council from these people who are hired by the new revenue;
 - Impact to contractors?
 - Space/location
 - MOUs
 - Confidentiality vs. Data Sharing
 - Transdisciplinary is not about turf: everybody shares in the responsibility, the authority and the funding but you still need a leader coordinator

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