

“Yes, we can!” Engaging the community in improving patient survival after out-of-hospital cardiac arrest

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Many qualitative studies are motivated by systems thinking but are not designed a priori based on system dynamics (SD) methods. How can qualitative data collected with a thematically based approach be repurposed for Causal Loop Diagram (CLD) and SD insights? We explored this in a case study of community engagement in treating out-of-hospital cardiac arrest (OHCA), a common cause of preventable death. Data (interviews and focus groups) were collected in eight community case studies of systems of care for OHCA. Our aim was to better understand the key community dynamics and interfaces that affect local OHCA system performance. Initial thematic analysis included thematic coding of transcripts and mapping of themes. System dynamics analysis included rigorously interpreted quotation (RIQ) analysis, group coding and reflexivity to generate a causal loop diagram describing the OHCA system of care and its community context as a system of interconnected balancing and reinforcing feedback loops.

Keywords: System Dynamics, Causal Loop Diagrams, Thematic Analysis, Qualitative Methods, Out of Hospital Cardiac Arrest

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