



Karen A. Monsen, RN, PhD, FAAN<sup>1,2</sup>, David M. Radosevich, RN, PhD<sup>3</sup>, Oladimeji F. Farri, MBBS<sup>2</sup>  
<sup>1</sup>School of Nursing, University of Minnesota, Minneapolis, MN, <sup>2</sup>Institute for Health Informatics, University of Minnesota, Minneapolis, MN,  
<sup>3</sup>Department of Surgery, University of Minnesota, Minneapolis, MN

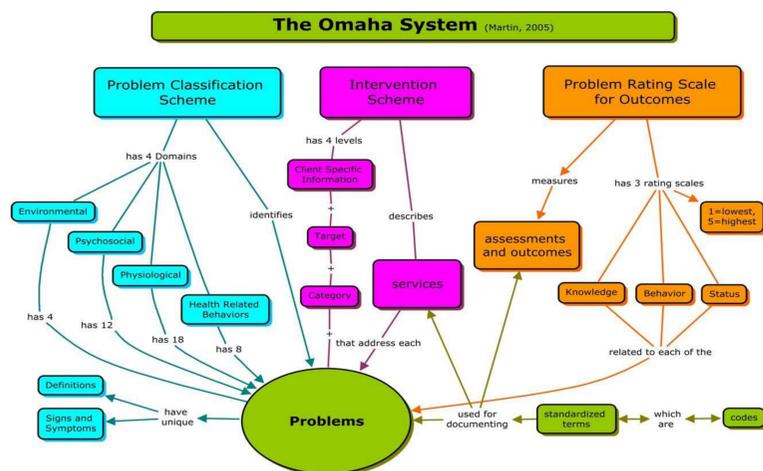
## BACKGROUND

Within the last decade, increasing numbers of public health nursing agencies have adopted electronic health records to enhance documentation capacity for program evaluation and fiscal accountability. Widespread use of documentation software in public health nursing has enabled advances in data and practice quality and generated copious amounts of data regarding public health nursing interventions. The interface terminology most often used by PHNs to document assessments and interventions is the Omaha System. New methods are needed to manage and interpret these complex data, and evaluate associations between client characteristics, interventions, and outcomes..

## PURPOSE

to generate and test hypotheses about intervention patterns over time.

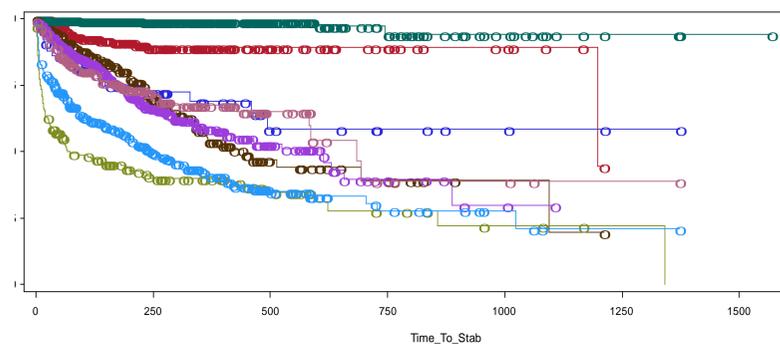
## INSTRUMENT



## SURVIVAL ANALYSIS

Kaplan-Meier curves depict changes in intervention patterns related to client outcomes. Problem stabilization was hypothesized to be an intervention pattern for a client problem that is characterized by co-occurring interventions with more than one category (i.e. teaching, guidance, and counseling; treatments and procedures; case management; and/or surveillance) during a nurse-client encounter; followed by surveillance only (for that problem) during a subsequent nurse-client encounter.

## RESULTS



STRATA:   
 - Abuse, Caretaker, Antepart, Family P, Income, Residenc, Substanc   
 - Censored probname=Abuse, Caretaker, Family P, Mental H, Residenc, Substanc

Improvement may occur in 11-12 months vs. 2-4 years. The public health nurses and clients in this data set mutually decided the length of service delivery, while standardized home visiting programs protocols require that providers serve families for 2-4 years from the birth of the first child. **What is the optimal length of home visiting services?**

## METHODOLOGY

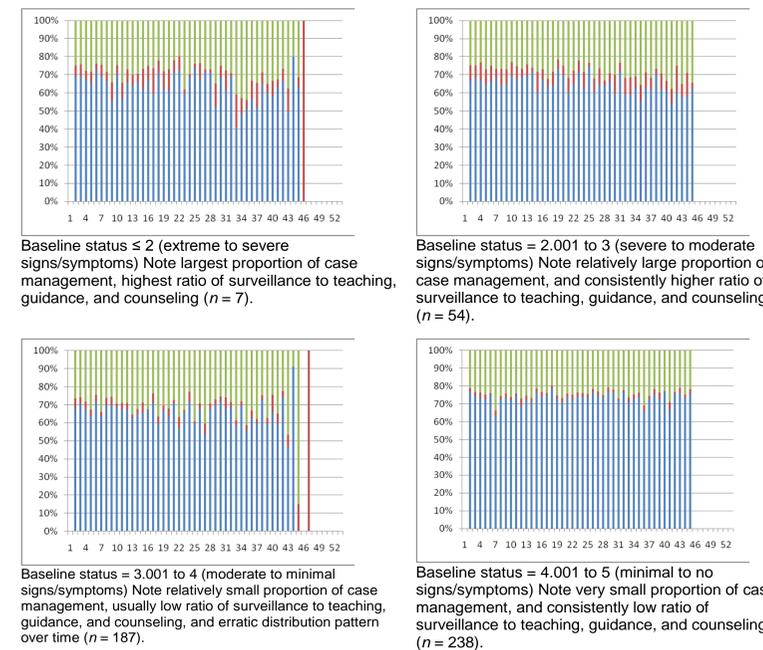
Intervention data were arranged in three different graphing formats to enable interpretation of hidden patterns in the data.

Reference: Martin KS. (2005). *The Omaha System: A key to practice, documentation, and information management* (Reprinted 2nd ed.). Omaha, NE: Health Connections Press.

## PROPORTIONS BY GROUP OVER TIME

Ratios of case management: to surveillance to teaching-guidance-and-counseling by client baseline status scores were hypothesized to show differences in intervention patterns over time by client risk.

## RESULTS



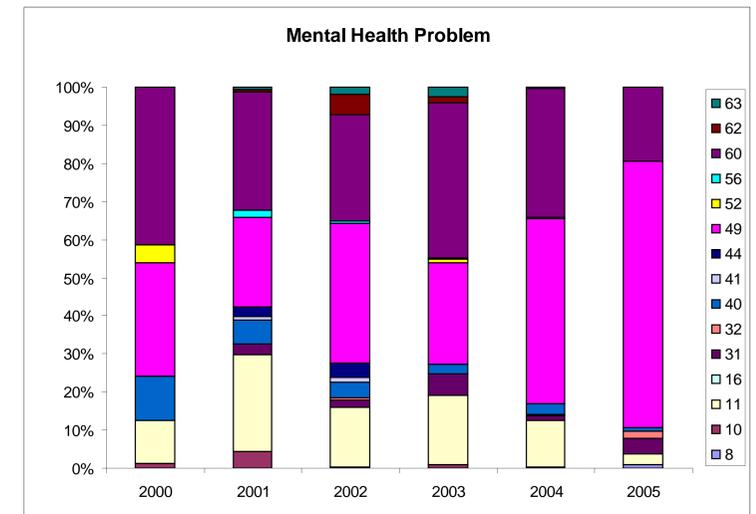
Red = Case management, Green = Surveillance, Blue = Teaching, guidance, and counseling

**Are these intervention patterns effective in addressing client needs and improving outcomes?**

## RESULTS

Use of paired intervention terms from were hypothesized to show differences in intervention approaches over time in family home visiting practice..

## RESULTS



Purple = Support system, Pink = Signs/symptoms mental/emotional, Blue = Other community resources, Cream = Coping skills

**Do changes in intervention patterns correspond to improved client outcomes?**

## CONCLUSIONS

Each of the graphing methods revealed new knowledge about public health nursing intervention patterns, while simultaneously generating hypotheses to be tested using traditional qualitative and quantitative methods in future research.

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