Assessing the impact of community-based interprofessional student teams on health outcomes & healthcare costs.

Katherine Bradley, PhD, RN; Peggy Wros, PhD, RN; Nic Bookman, MPH
1 | PROJECT OVERVIEW
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2 | DEFINING THE POPULATION
1 | PROJECT OVERVIEW
2 | DEFINING THE POPULATION
3 | OUTCOME MEASURES
I-CAN Priorities

Expand partnerships between OHSU, neighborhood clinics, and community service agencies.
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Create a collaborative model for clinical practice and interprofessional education.
I-CAN Priorities

- **Expand partnerships** between OHSU, neighborhood clinics, and community service agencies.

- **Create a collaborative model** for clinical practice and interprofessional education.

- **Improve access** to local health care services for the uninsured, isolated, or medically vulnerable.
I-CAN Priorities

- Expand partnerships between OHSU, neighborhood clinics, and community service agencies.
- Create a collaborative model for clinical practice and interprofessional education.
- Improve access to local health care services for the uninsured, isolated, or medically vulnerable.
- Address the Triple Aim goals of increasing satisfaction with the healthcare experience, improving population health outcomes, and reducing or containing per capita costs.
Formation of NCAPPPs

Neighborhood Collaboratives for Academic-Practice Partnership
Formation of NCAPPs

Neighborhood Collaboratives for Academic-Practice Partnership

People in the neighborhood

NCAPPs
Formation of NCAPPs

Neighborhood Collaboratives for Academic-Practice Partnership

People in the neighborhood → NCAPPs → Health care organizations
Formation of NCAPPPs

Neighborhood Collaboratives for Academic-Practice Partnership

People in the neighborhood  NCAPPPs  Health care organizations  Community service agencies
Formation of NCAPPPs

Neighborhood Collaboratives for Academic-Practice Partnership

People in the neighborhood

Health care organizations

academic partners

Community service agencies

NCAPPPs
Academic Partners within OHSU

I-CAN brings together students and faculty from the:
I-CAN brings together students and faculty from the:

School of Nursing

3rd and 4th Year Students
Academic Partners within OHSU

I-CAN brings together students and faculty from the:

- **School of Nursing**
  - 3rd and 4th Year Students

- **School of Medicine**
  - 2nd and 3rd Year Students
Academic Partners within OHSU

I-CAN brings together students and faculty from the:

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- School of Dentistry
  4th Year Students

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- School of Medicine
  2nd and 3rd Year Students

- College of Pharmacy
  4th Year Students
3 SITES

POPULATIONS
Care Coordination Process

Neighborhood Collaboratives for Academic-Practice Partnership

- People in the neighborhood
- Health care organization
- Community service agency
- Community service agency
- Dental clinic (standalone)
- I-CAN student teams
Care Coordination Process

Neighborhood Collaboratives for Academic-Practice Partnership

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Neighborhood Collaboratives for Academic-Practice Partnership
Agencies Refer Clients with Need
Interprofessional Student Teams Meet Weekly with Clients
Students Work Under Licensed Faculty-in-Residence
At the point when clients start working with I-CAN:
At the point when clients start working with I-CAN:

37%

Of clients lack a primary care home
At the point when clients start working with I-CAN:

37% Of clients lack a primary care home

23% Of clients lack stable housing
At the point when clients start working with I-CAN:

- **37%** Of clients lack a primary care home
- **23%** Of clients lack stable housing
- **20%** Of clients lack health insurance
High Utilization of Healthcare

In the six-month period prior to working with I-CAN:
In the six-month period prior to working with I-CAN:

48% of clients visited the emergency department at least once.
High Utilization of Healthcare

In the six-month period prior to working with I-CAN:

- **48%** of clients visited the emergency department at least once.
- **24%** of clients who visited the ED visited **three or more times** in six months.
High Utilization of Healthcare

In the six-month period prior to working with I-CAN:

- 48% of clients visited the emergency department at least once
- 33% of clients were admitted to the hospital at least once
- 24% of clients who visited the ED visited three or more times in six months
In the six-month period prior to working with I-CAN:

- **48%** of clients visited the emergency department at least once.
- **33%** of clients were admitted to the hospital at least once.
- **24%** of clients who visited the ED visited three or more times in six months.
- **33%** of clients called emergency medical services at least once.
At the time of initial assessment:
At the time of initial assessment:

Clients are unable to identify the name or purpose of 25-50% of their medications.
Health Literacy & Daily Activities

At the time of initial assessment:

Clients are unable to identify the name or purpose of 25-50% of their medications.

On a scale of 0-100, clients rate their overall quality of life at 59.
Health Literacy & Daily Activities

At the time of initial assessment:

Clients are unable to identify the name or purpose of **25-50%** of their medications.

On a scale of 0-100, clients rate their overall quality of life at 59.

**Three-quarters** of clients report problems with pain, mobility, and performing their daily activities.
1 | PROJECT OVERVIEW
2 | DEFINING THE POPULATION
3 | OUTCOME MEASURES
4 | DEFINING COST
5 | CONCLUSIONS
6 | Q & A
Achieving Client Goals

First-year data from April 1, 2013 through May 15, 2014.
Achieving Client Goals

First-year data from April 1, 2013 through May 15, 2014.

63% ↑
Increase in clients with access to primary care (N = 30)
Achieving Client Goals

First-year data from April 1, 2013 through May 15, 2014.

63% ↑ Increase in clients with access to primary care (N = 30)

39% ↑ Increase in clients living in stable housing (N = 19)
Achieving Client Goals

First-year data from April 1, 2013 through May 15, 2014.

- **63%** ↑ Increase in clients with access to primary care (N = 30)
- **39%** ↑ Increase in clients living in stable housing (N = 19)
- **53%** ↑ Increase in clients with access to health insurance (N = 30)
Healthcare utilization decreased significantly after twelve I-CAN visits when compared to the six month period prior to I-CAN.
Healthcare utilization decreased significantly after twelve I-CAN visits when compared to the six month period prior to I-CAN.

- ED Visits: 31 (previously) vs. 4 (post-I-CAN)
Healthcare utilization decreased significantly after twelve I-CAN visits when compared to the six month period prior to I-CAN.
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<thead>
<tr>
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<tbody>
<tr>
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<td>31</td>
<td>4</td>
</tr>
<tr>
<td>EMS Calls</td>
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<td>2</td>
</tr>
<tr>
<td>Admissions</td>
<td>9</td>
<td>2</td>
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**78%** decrease in resource demand.
Healthcare utilization decreased significantly after twelve I-CAN visits when compared to the six month period prior to I-CAN.

Reducing Resource Demand (N = 15)

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Healthcare utilization decreased significantly after twelve I-CAN visits when compared to the six month period prior to I-CAN.

Reducing Resource Demand (N = 15)

- ED Visits: 31 vs 4
- EMS Calls: 15 vs 2
- Admissions: 9 vs 2

=?

$?
Assessing Costs (N = 15)

- ED Visits: 31
- EMS Calls: 15
- Admissions: 9
Assessing Costs (N = 15)

- 27 fewer ED visits
- 13 fewer EMS calls
- 7 fewer hospital admissions
Healthcare Cost Measures

- Cost Effectiveness
- Cost Avoidance
- Cost Savings
Healthcare Cost Measures

- Cost Effectiveness
- Cost Avoidance
- Cost Savings
Healthcare Cost Measures

- Cost Effectiveness
- Cost Avoidance
- Cost Savings
Healthcare Cost Measures

- Cost Effectiveness
- Cost Avoidance
- Cost Savings
Measuring ED and Inpatient Admissions
Measuring ED and Inpatient Admissions

CMS Medicare Fee Schedule
+ Medicaid conversion factor
Measuring ED and Inpatient Admissions

CMS Medicare Fee Schedule

CMS Medicare Fee Schedule + Medicaid conversion factor

AHRQ Medicare Expenditure Panel Survey (MEPS)
I-CAN Cost Indicators

Admissions

$18,012

AHRQ MEPS
I-CAN Cost Indicators

Admissions
$18,012
AHRQ MEPS

ED Visits
$1,390
AHRQ MEPS
I-CAN Cost Indicators

- **Admissions**: $18,012 (AHRQ MEPS)
- **ED Visits**: $1,390 (AHRQ MEPS)
- **EMS Calls**: $1,500 (AHRQ MEPS)

Jonathan Jiu, MD, OHSU Department of Emergency Medicine
Healthcare utilization decreased significantly after twelve I-CAN visits when compared to the six month period prior to I-CAN.

- ED Visits: 31 → 4
- EMS Calls: 15 → 2
- Admissions: 9 → 2
Healthcare utilization decreased significantly after twelve I-CAN visits when compared to the six month period prior to I-CAN.

Reducing System Costs (N = 15)

$183,114 in estimated cost avoidance for just 15 clients.
Additional Measures
Additional Measures

Stable Housing
Additional Measures

- Stable Housing
- Medication Management
Additional Measures

Stable Housing

Medication Management

Primary Care Home
Additional Measures

- Stable Housing
- Medication Management
- Primary Care Home
- Student Extension of Workforce
1 | PROJECT OVERVIEW
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Burning Questions or Recommendations
Disclaimer

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UD7HP25057 and title “Interprofessional Care Access Network” for $1,485,394. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.
## I-CAN Team Members

<table>
<thead>
<tr>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>Project Director</td>
<td>Peggy Wros, PhD, RN</td>
</tr>
<tr>
<td>Project Manager - Portland</td>
<td>Launa Rae Mathews, MS, RN, COHN-S</td>
</tr>
<tr>
<td>Project Co-Manager - Medford</td>
<td>Heather Voss, MSN, RN</td>
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<td>Project Coordinator</td>
<td>Nic Bookman, MPH</td>
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<tr>
<td>Lead Project Evaluator</td>
<td>Katherine Bradley, PhD, RN</td>
</tr>
<tr>
<td>Evaluation Consultant</td>
<td>Tanya Ostrogorsky, EdD</td>
</tr>
<tr>
<td>Liaison to Provost’s Office</td>
<td>Jennifer Boyd, PhD, MBA</td>
</tr>
<tr>
<td>Liaison to School of Medicine</td>
<td>Molly Osborne, MD, PhD</td>
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<tr>
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<td>Jill Mason, MPH, RDH, EPP</td>
</tr>
<tr>
<td>Liaison to College of Pharmacy</td>
<td>Juancho Ramirez, PharmD</td>
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<tr>
<td>Faculty in Residence – Old Town</td>
<td>Beth Doyle, MSN, WHCNP, ANP, RN</td>
</tr>
<tr>
<td>Faculty in Residence – Medford</td>
<td>Fran Voss, MSN, RN</td>
</tr>
<tr>
<td>Faculty in Residence - Southeast</td>
<td>Kristen Beiers-Jones, MN, RN</td>
</tr>
</tbody>
</table>
## Community Partner Liaisons

<table>
<thead>
<tr>
<th>Organization</th>
<th>Liaison</th>
</tr>
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<tbody>
<tr>
<td>Central City Concern</td>
<td>Chuck Sve, LAc</td>
</tr>
<tr>
<td>Macdonald Center</td>
<td>Kristrun Grondal</td>
</tr>
<tr>
<td>Neighborhood House</td>
<td>Janice Jones</td>
</tr>
<tr>
<td>La Clinica</td>
<td>Alma Elder, RN</td>
</tr>
<tr>
<td>Family Nurturing Center</td>
<td>Beth Jaffee-Stafford</td>
</tr>
<tr>
<td>St. Vincent de Paul</td>
<td>Berry Birmingham</td>
</tr>
<tr>
<td>Family Medicine at Richmond</td>
<td>Erin Kirk</td>
</tr>
<tr>
<td>Asian Health &amp; Service Center</td>
<td>Christine Lau</td>
</tr>
<tr>
<td>Lutheran Community Services NW</td>
<td>Jacinda Paschoal</td>
</tr>
<tr>
<td>Russell Street Dental</td>
<td>Alisha Brazzle</td>
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71st Annual OPHA Conference & Meeting
Corvallis, Oregon
October 12, 2015

Thank You!

www.ohsu.edu/i-can  ican@ohsu.edu

Katherine Bradley, PhD, RN;  Peggy Wros, PhD, RN;  Nic Bookman, MPH