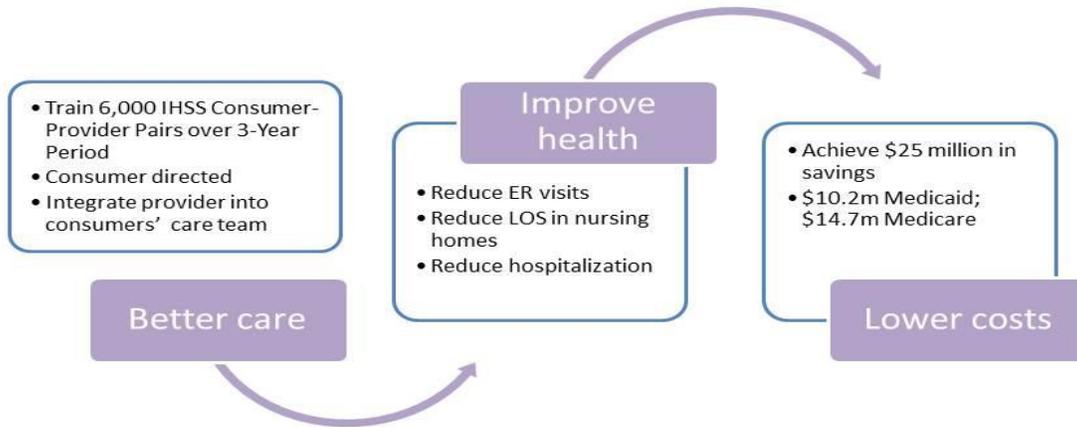


## CMMI Project: Care Team Integration of the Home-based Workforce

Health Care Innovation Award of \$11.8M



### Project Partners

- **CLTCEC, Lead Agency**
  - Overall project management and program development
- **Partner Agencies:**
  - L.A. Care
  - Health Net
  - Care 1st
  - Contra Costa Employment and Human Services Department
  - Contra Costa Health Plan
  - IEHP
  - Molina Healthcare
  - SEIU Local 2015
  - St. John's Well Child and Family Clinics
  - SEIU UHW
  - UCSF Center for Health Professions

## California Model

- Consumer-directed care
- Over 450,000 IHSS providers
- Independent Providers
- IHSS services in 7 counties are part of Managed Care as of April 2014, through the Coordinated Care Initiative
- The Home Care workforce is the 2<sup>nd</sup> quickest growing workforce in the nation with predicted increase of 70% by 2020.

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## Training Program & Curriculum

- 17 weeks
- 3.5 hours per session, 62.5 hours total
- Recruitment honors consumer directed care
- Consumer **and** provider attend second and last session together
- At home assignments
- Competency checks and skills demonstration
- Attendance policy
- Curriculum designed for population
  - Adult education pedagogy
  - Group activities
  - Integration activities

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## Core Competencies

- **Soft skills**
  - **Communicating** about changes in health or any healthcare issues
  - **Monitoring** health conditions or medication adherence
  - **Coaching** to support overall improved quality of life for the patient (e.g., eating healthy foods, getting exercise)
  - Working as a **Care Aide** to help support the patient's overall care in the home
  - **Navigating** through the healthcare system with the patient
- **Hard skills**
  - CPR and First Aid
  - 10 Core Competencies

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## Curriculum Competencies/Topics

- Roles, rights, and the understanding the system
- Consumer Directed Care
- Communication and Teamwork
- ADLs and Body Mechanics
- Personal Care
- Infection Control and Standard Precautions
- Adult and Child CPR/First Aid/AED
- Home Safety
- Nutrition, Diet, and Physical Activity
- Medication and Introduction to Vitals
- Body Systems and Common Diseases

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## Curriculum Competencies/Topics

- Heart and Lung Diseases
- Diabetes
- Behavioral Health and Developmental Disabilities
- Dementia and Alzheimer's Disease
- Career Exploration
- Integrated Care

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## Module 15: Dementia and Alzheimer's Disease

- By the end of this training module, participants are able to:
  - Define Alzheimer's disease and dementia and identify their symptoms and warning signs.
  - State important considerations in the care of a consumer who has Alzheimer's disease or dementia.
  - Define sundowning and identify its symptoms.
  - State important considerations in the care of a consumer who experiences sundowning.
  - Describe strategies for responding to challenging behaviors.
  - Describe strategies for communicating with someone with Alzheimer's disease or dementia.

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## Module 15: Dementia and Alzheimer's Disease

- Communication
- Competency checks
- At-home assignment
  - Communication
  - Monitoring
  - Feedback and sharing with Consumer

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## Skills Demonstrations

1. Infection Control and Standard Precautions: Tracheostomy and Nasogastric tubes, PPE's, Catheters and Colostomy	6. Body Systems and most common diseases: Arthritis, Cancer, Kidney Disease, Multiple Sclerosis, Parkinson's Disease, and Stroke
2. Oral Care and Dental care	7. Fall and Fire Prevention
3. Grooming and Personal Hygiene	8. Diet and Nutrition
4. Body Mechanics in lifting objects	9. Medication Management and Introduction to Vital Signs: measure or record vitals, but no diagnoses
5. Body Mechanics in transferring individuals	10. Communication and working relationship with patient's health care providers on chronic conditions, such as: heart and lung, diabetes behavioral health conditions, dementia.

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## Classes & Graduates

- 247 CMMI Classes
  - 221 in Los Angeles County
  - 15 in San Bernardino County
  - 11 in Contra Costa County
- 91 Classes in Spanish
- 82 Classes in English
- 38 Classes in Armenian
- 14 Classes in Korean
- 12 Classes in Mandarin
- 10 Classes in Cantonese
- 5552 Provider Graduates
- 6390 Consumer Graduates
- 89% of students who attend 1 class complete graduation requirements

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## Recruitment in Los Angeles & San Bernardino Counties

- Field Campaign: staff & Home Care interns conducted recruitment directly to other SEIU Local 2015 Homecare workers in multiple languages. Crucial for successful recruitment, based on workforce experience, trust and linguistic ability.
  - 6 languages
  - 6 days a week
- Eligibility: IHSS consumers were considered high risk and eligible for the project if they had at least one (1) emergency room visit or one (1) inpatient stay or one (1) stay in a nursing home in the past 12 months or if they had a chronic disease requiring ongoing medical care in the past 12 months.

## Recruitment in Contra Costa County

- CCHP & Social Services were able to coordinate on IHSS consumer enrollment based on high-risk criteria. Social workers did recruitment.

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## Integration

- **Bottom Up and Top Down Approach**
  - **IHSS Providers**
    - Tool for 1<sup>st</sup> visit
      - Empower the consumer and provider
      - Consumer asks for provider to be included as part of his/her care team
      - Recorded in the EMR
    - Educates the “traditional” clinical care team members about the training program

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## Integration

- **Health Plans, Medical groups, Clinical Staff**
  - Partner on our training program
  - Educate clinical staff about role of IHSS worker
  - More work needs to be done
- **Care Team Interactions**
  - Modality
  - Frequency
  - Consider linguistic needs
  - Non-traditional times: outside 9am -5pm

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## Consumer & Provider Feedback

“Before I took this class I did not know as much about how to understand different conditions and what do to about them. My father (consumer in his 70’s) suffered a stroke. If I had not taken the class I would have thought that he was just sleepy. Because I learned about stroke and the details about what to look for and how to deal with that emergency, I was able to call the ambulance. They took him to the hospital and later the doctor told me that it had been a minor stroke but because I took quick action it helped him in minimizing the effects. “

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## Consumer & Provider Feedback

- **Provider:** “It has not been just one thing, it has been many. Diet, exercise and Diabetes were the best. It has helped me in how I work with my consumer.”
- **Consumer:** “Yes, he tells me everything he learns after every class and tries it on me. It has helped me with my diabetes because he has changed the menu now he includes a lot more vegetables. I did not like it at first but I knew it was for my health and now I feel better. He also continually asks me to do exercise, and he puts stationary pedals on the floor for me to exercise. Sometimes I tell him I do not want to do it but I end up doing it because he encourages me. It has helped me because I have grandchildren and that allows me to still play with them and it also helps me with my Diabetes.”

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## Graduations



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### Purpose of Evaluation

- To help determine if the intervention met the goals of the grant to meet the Triple Aim
- Assess impact of training
- Measure costs and utilization pre/post intervention
  - Comparison group if available

## Evaluation Design

- Target high risk IHSS consumers
  - High risk criteria
- Pre and post training design
- Comparison group analysis
- Paired analysis
- Analysis of cost savings
- Surveys of project participants

## Evaluation Data

- Utilization data
  - Emergency room visits
  - Inpatient stays
  - Nursing home utilization
- Linked IHSS consumer and worker ID (de-identified) to utilization data provided by health plans
- Data included trained group and comparison group
- Developed and applied cost assumptions to utilization data

## Evaluation Data

### ▪ Surveys

- Pre and post training
- Consumer and worker
- Collected in 5 languages
- Conducted on tablets interfaced with Qualtrics database
- Available in paper form if needed
- Analyzed quarterly

## Pre-Training Worker Educational Background

<b>EDUCATION/TRAINING</b>	<b>PERCENT (n=3,643)</b>
Less than high school	42.8%
High school graduate	17.1%
Some college or associate degree	29.0%
Bachelor's degree or higher	11.1%
<b>TOTAL</b>	<b>100%</b>

## Pre-Training Worker Hours Worked

HOURS WORKED PER WEEK	PERCENT (n=3,569)
10 or few hours	8.3
11-20 hours	20.2
21-30 hours	20.9
31-40 hours	18.9
Greater than 40 hours	31.7
<b>TOTAL</b>	<b>100%</b>

## Pre-Training Worker Involvement in Care and Wellbeing

INVOLVEMENT	MEAN 1=Never involved 5=Always involved
How often do you communicate with your consumer's healthcare team about your consumer's health conditions?	3.94 (n=3,489)
How often do you communicate with your consumer's healthcare team about your consumer's wellbeing (for example, nutrition, exercise, social activities, etc.)?	3.81 (n=3,470)
COMMUNICATION	MEAN 5=Always 1=Never
In the future, how often do you want to communicate with your consumer's healthcare team?	4.09 (n=3,367)

# Survey Results: Post-Training Worker

## Training

<b>COURSE</b>	<b>MEAN</b> 5=Strongly agree 1=Strongly disagree (n=3,886)
Overall, I am satisfied with the training.	4.80
The length of each class session was just right.	4.63
The length of the entire training was just right.	4.65
The time of day the classes were held was convenient.	4.65
It was hard to learn the material because there were too many students in my class.	2.47
I did NOT have enough time to learn the content covered in this training.	2.43

## Being Knowledgeable and Prepared

<b>KNOWLEDGEABLE AND PREPARED</b>	<b>MEAN</b> 5=Strongly agree 1=Strongly disagree (n=3,802)
My knowledge about how to care for a person at home increased after taking this training program.	4.79
I feel better-prepared to perform the job of an IHSS provider	4.80

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## Involvement in Care of Consumer

<b>INVOLVEMENT: INTEGRATION</b> Compared to when you began this training course, how often are you now communicating with your consumer's healthcare team?	<b>PERCENT</b> (n=3,572)
More often than before training	59.3%
Same as before training	33%
Less than before training	7.7%
<b>INVOLVEMENT: INTEGRATION IN FUTURE</b>	<b>MEAN</b> 5=Always 1=Never (n=3,618)
In the future, how often do you want to communicate with your consumer's healthcare team?	4.17

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# Survey Results: Pre-Training Consumer

## Consumer's IHSS Provider(s)

CONSUMER'S PROVIDER(S)	PERCENT
How many IHSS provider(s) currently work for the consumer	(n=1,620)
One	94.3%
Two	3.6%
Three	0.9%
Four or more	1.2%
How many of your IHSS provider(s) are family members	(n=1,557)
None	43.5%
One	51.8%
Two	2.3%
Three	0.6%
Four or more	1.8%

## Including IHSS Providers in Healthcare Team

<b>INTEGRATION</b>	<b>MEAN</b> 5=Strongly agree 1=Strongly disagree
IHSS providers should be part of healthcare teams.	4.41 (n=1,521)
<b>INTEGRATION: COMMUNICATION</b>	<b>MEAN</b> 5=Always 1=Never
How often does your main IHSS provider communicate with anyone from your healthcare team about your health conditions (for example, asthma, diabetes, high blood pressure, etc.)?	3.87 (n=1,529)
How often does your main IHSS provider communicate with anyone from your healthcare team about your well-being (for example, nutrition, exercise, social activities, etc.)?	3.77 (n=1,509)
In future, how often do you want your main IHSS provider to communicate with your healthcare team	4.14 (n=1,438)

## Survey Results: Post-Training Consumer

## Including IHSS Providers in Healthcare Team

<b>INTEGRATION</b>	<b>MEAN</b> 5=Strongly agree 1=Strongly disagree
IHSS providers should be part of healthcare teams.	4.55 (n=1,747)
<b>INTEGRATION: COMMUNICATION</b>	<b>MEAN</b> 5=Always 1=Never
How often does your main IHSS provider communicate with anyone from your healthcare team about your health conditions (for example, asthma, diabetes, high blood pressure, etc.)?	3.77 (n=1,696)
How often does your main IHSS provider communicate with anyone from your healthcare team about your well-being (for example, nutrition, exercise, social activities, etc.)?	3.81 (n=1,686)

## Including IHSS Providers in Healthcare Team

<b>INTEGRATION: COMMUNICATION</b>	<b>PERCENT</b>
Now that your main IHSS provider has completed this training, do you think he or she will communicate with your healthcare team more often, less often, or about the same?	(n=1,642)
More often	69.1%
Now that your main IHSS provider has completed this training, do you think he or she will communication better, the same, or worse with your healthcare team?	(n=1,672)
Better	86%
Now that your main IHSS provider has completed this training, how confident do you feel that he or she will be an effective member of your healthcare team?	(n=1,680)
Very confident	74.6%

# Health Plan Utilization Data

## Health Plan A: Summary

- Consistent trend within Plan A showing declining rates of utilization and reuse among members whose workers were trained.
- Demonstrated cost savings post training for both ER visits and inpatient hospital stays
- Differences are most notable by the second year after training

### Health Plan A

**Table 1: Emergency Room Visits**  
**Health Plan A Members with a Trained**  
**IHSS Provider**

	A	B	C
	Year 0: 12 Months before graduation	Year 1: 12 Months after graduation	Year 2: 13-24 months after graduation
1 # Trained Workers*	136	136	95
2 #ER visits	448	306	115
3 # ER Users	71	64	31
4 Mean ER visits/Trained Workers*	3.3	2.3	1.2
5 Mean visits/ER users	6.3	4.8	3.7
6 % ER users among Trained Workers*	52.2	47.1	32.6

\*Trained Workers refers to health plan members whose worker graduated from the training

## Health Plan A

**Table 2: Inpatient Hospital Stays  
Health Plan A Members with a Trained IHSS Provider**

	<b>A</b>	<b>B</b>	<b>C</b>
	Year 0: 12 Months before graduation	Year 1: 12 months after graduation	Year 2: 13-24 months after graduation
<b>1</b> # Trained Workers*	136	136	95
<b>2</b> #IP stays	64	57	14
<b>3</b> # IP Users	31	31	12
<b>4</b> Mean IP stays/Trained Workers*	0.5	0.4	0.2
<b>5</b> Mean IP stays/IP users	2.1	1.8	1.2
<b>6</b> % IP users among Trained Workers*	22.7	22.8	12.6

\*Trained Workers refers to health plan members whose worker graduated from the training

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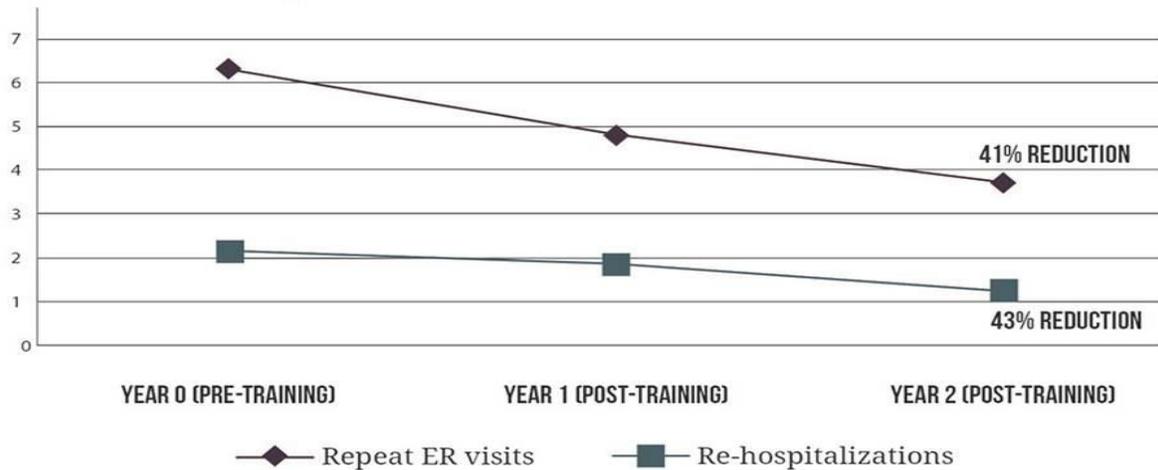
## Health Plan A: Trained and Comparison Group

Health Plan A		Year Prior to training	1 year post training	2 years post training	
<i>Trained Group</i>	ER visits/member	3.3	2.3	1.2	
	Repeated ER visits	6.3	4.8	3.7	
	IP stays/member	0.5	0.4	0.1	
	Repeated IP stays	2.1	1.8	1.2	
<i>Comparison</i>	<b>Observation Year</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
	ER visits/member	1.9	3.9	3.4	2.3
	Repeated ER visits	4.6	6.7	7.0	6.0
	IP stays/member	0.3	0.6	0.4	0.3
	Repeated IP stays	1.7	2.1	2.1	2.0

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### Reduction in Average Repeat ER Visits and Hospitalizations for Contra Costa Health Plan



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### Health Plan A: Cost Savings\*

#### ER

- \$2,310 per member savings in trained group compared to non-trained group

#### INPATIENT

- \$9600 per member savings in trained group compared to non-trained group

\*Based on standardized cost estimate from IHSS statewide data from 2008; \$2100 per ER visit; \$48,000 per hospital stay

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## Health Plan B: Summary

- Utilizations rates for ER and inpatient stays are lower than Plan A
- Yet, still a consistent trend within Health Plan B that shows reductions in utilization rates and reuse among those in the training program
- Reduced utilization led to cost savings

Health Plan B  
**Table 3: Emergency Room Visits  
 Health Plan B Members with a Trained  
 IHSS Provider**

	A	B	C
	Year 0: 12 Months before graduation	Year 1: 12 Months after graduation	Year 2: 13- 24 months after graduation
<b>1</b> # Trained Workers*	1896	1896	577
<b>2</b> #ER visits	762	526	133
<b>3</b> # ER Users	311	254	71
<b>4</b> Mean ER visits/Trained Workers*	0.4	0.3	0.2
<b>5</b> Mean visits/ER users	2.5	2.1	1.9
<b>6</b> % ER users among Trained Workers*	16.4	13.4	12.3

\*Trained Workers refers to health plan members whose worker graduated from the training

## Health Plan B

**Table 4: Inpatient Hospital Stays  
Health Plan B Members with a Trained IHSS  
Provider**

	<b>A</b>	<b>B</b>	<b>C</b>
	Year 0: 12 Months before graduation	Year 1: 12 months after graduation	Year 2: 13- 24 months after graduation
1 # Trained Workers*	1896	1896	577
2 #IP stays	271	191	40
3 # IP Users	184	132	33
4 Mean IP stays/Trained Workers*	0.14	0.10	0.06
5 Mean IP stays/IP users	1.5	1.4	1.2
6 % IP users among Trained Workers*	9.7	7.0	5.7

\*Trained Workers refers to health plan members whose worker graduated from the training

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## Health Plan B: Trained and Comparison Group

Health Plan B		Year Prior to training	1 year post training	2 years post training	
<i>Trained Group</i>	ER visits/member	0.4	0.3	0.2	
	Repeated ER visits	2.5	2.1	1.9	
	IP stays/member	0.1	0.1	0.1	
	Repeated IP stays	1.5	1.4	1.2	
<i>Comparison</i>	<b>Observation Year</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
	ER visits/member	0.5	0.6	0.4	0.3
	Repeated ER visits	2.6	2.7	1.9	1.5
	IP stays/member	0.2	0.2	0.2	0.2
	Repeated IP stays	1.7	1.7	1.7	1.6

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## Health Plan B: Cost Savings\*

### ER

- \$210 per member savings in trained group compared to non-trained group (lower overall use)

### INPATIENT

- No change in trained group compared to non-trained group
- \$19,200 savings in repeat users in trained compared to non-trained group

\*Based on standardized cost estimate from IHSS statewide data from 2008; \$2100 per ER visit; \$48,000 per hospital stay

## Evaluation Limitations

- Small sample sizes in some of the health plans
- Lack of verification of high risk criteria in some health plans
- Number of months of follow up after training was limited for to one year for 3 of the plans comparing across plans

## Conclusion

- Further testing of training model in outcomes of worker retention and health outcomes
- Further development of the integration of worker into health care teams and how that is enabled
- Promising outcomes of training in cost savings, better preparation of workforce

## Path Forward

- Consumer directed nature intact
- Time to invest in the workforce
- Know your population and meet them where they are: language and place
- Integration: important to have deep collaboration with Health Plans
- Trained IHSS workers does improve the triple aim
- Providers better prepared & empowered in their role

## Contact Information

Corinne Eldridge  
Executive Director  
California Long-Term Care Education Center  
[corinne@cltcec.org](mailto:corinne@cltcec.org)  
213.210.6389

