

# Re-Thinking Drug Benefits: Medication Use as an Investment in Health, Not a Cost Center

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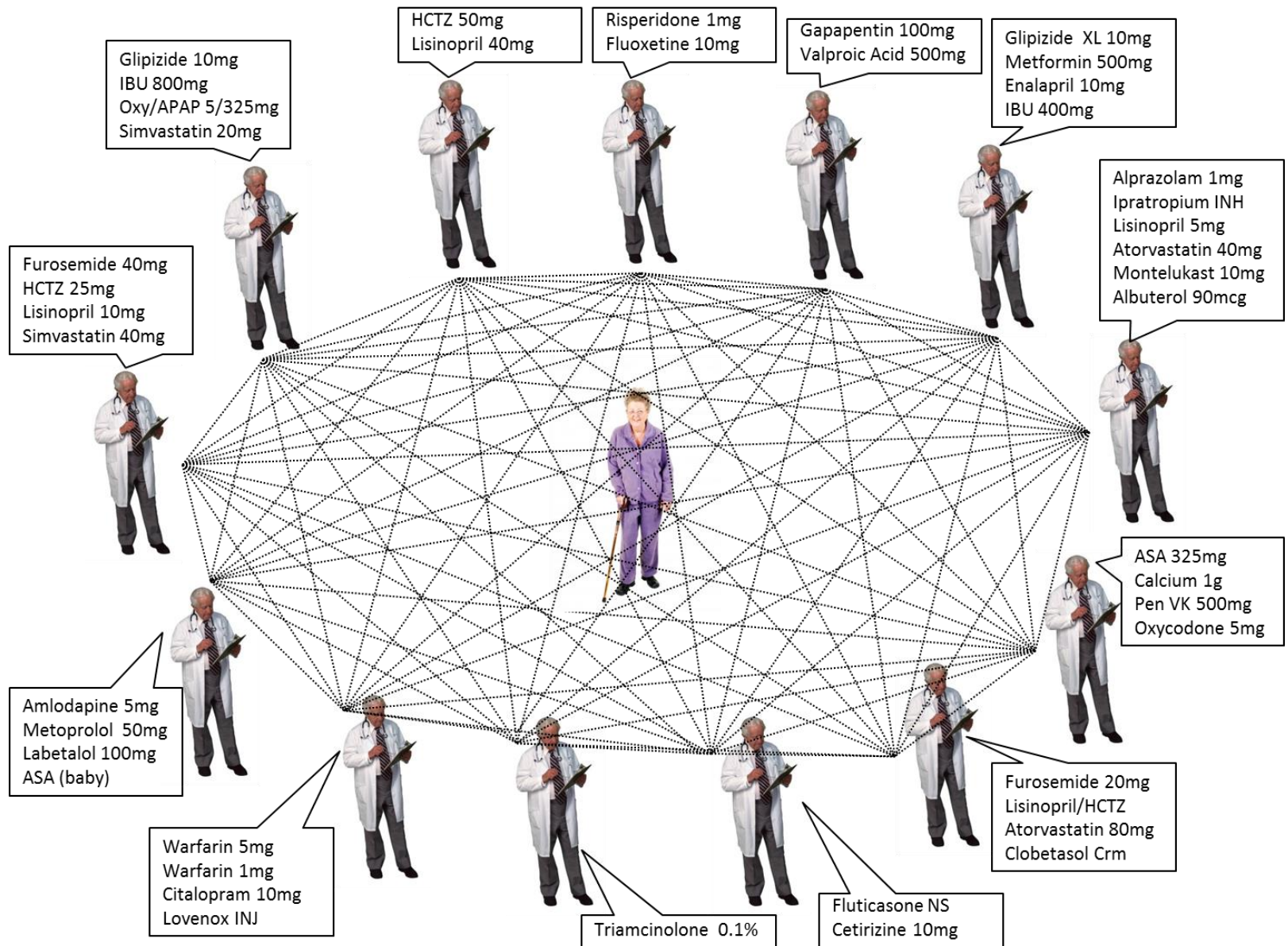
VP, Pharmacy Programs – Community Care of North Carolina

Employer's Forum

March 10<sup>th</sup>, 2015

**Why focus on medication  
optimization?**

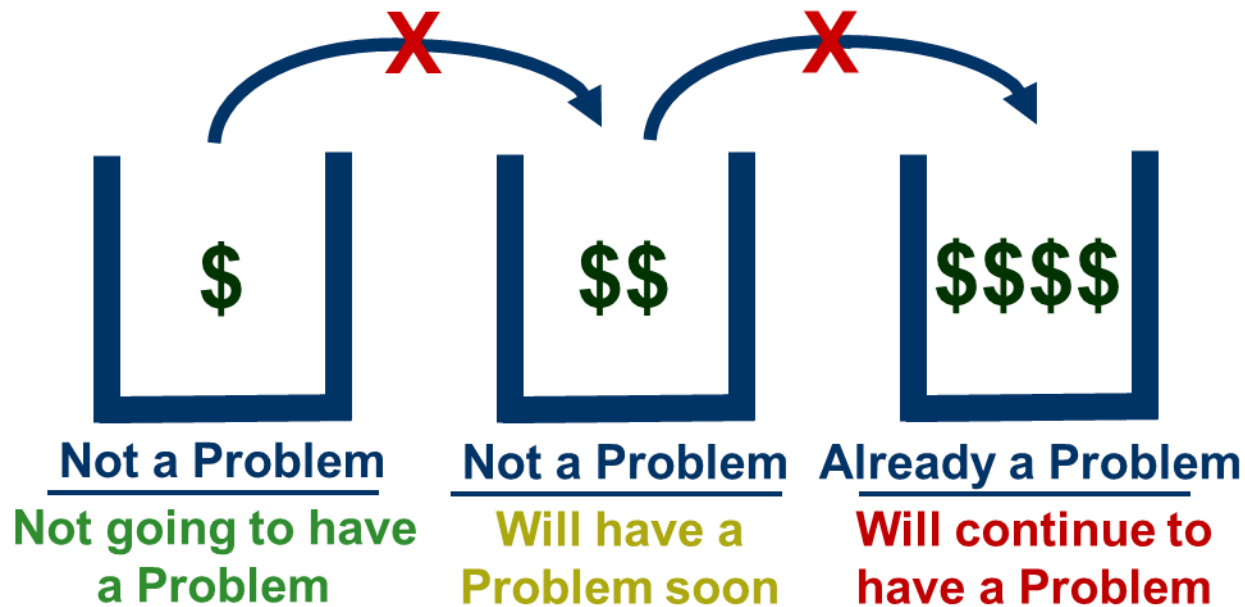
# For Many, Medication Use is Chaotic



# Current State: by the Numbers....

- ~1/3 of all Americans take 5 or more medications
- ~ 1/3 of prescriptions never get filled, ~1/3 that get filled are not continued
- Non-Adherence to medications leads to ~\$300B in avoidable health care costs
- ~60% of patients who become institutionalized must do so because of a drug related issue
- ~20% of patients experience adverse events (AEs) within 3 weeks of discharge from hospital
- 1 in 3 heart failure patients is readmitted within 1 month from drug related event

# The Importance of Understanding and Addressing Sub-Optimal Medication Use

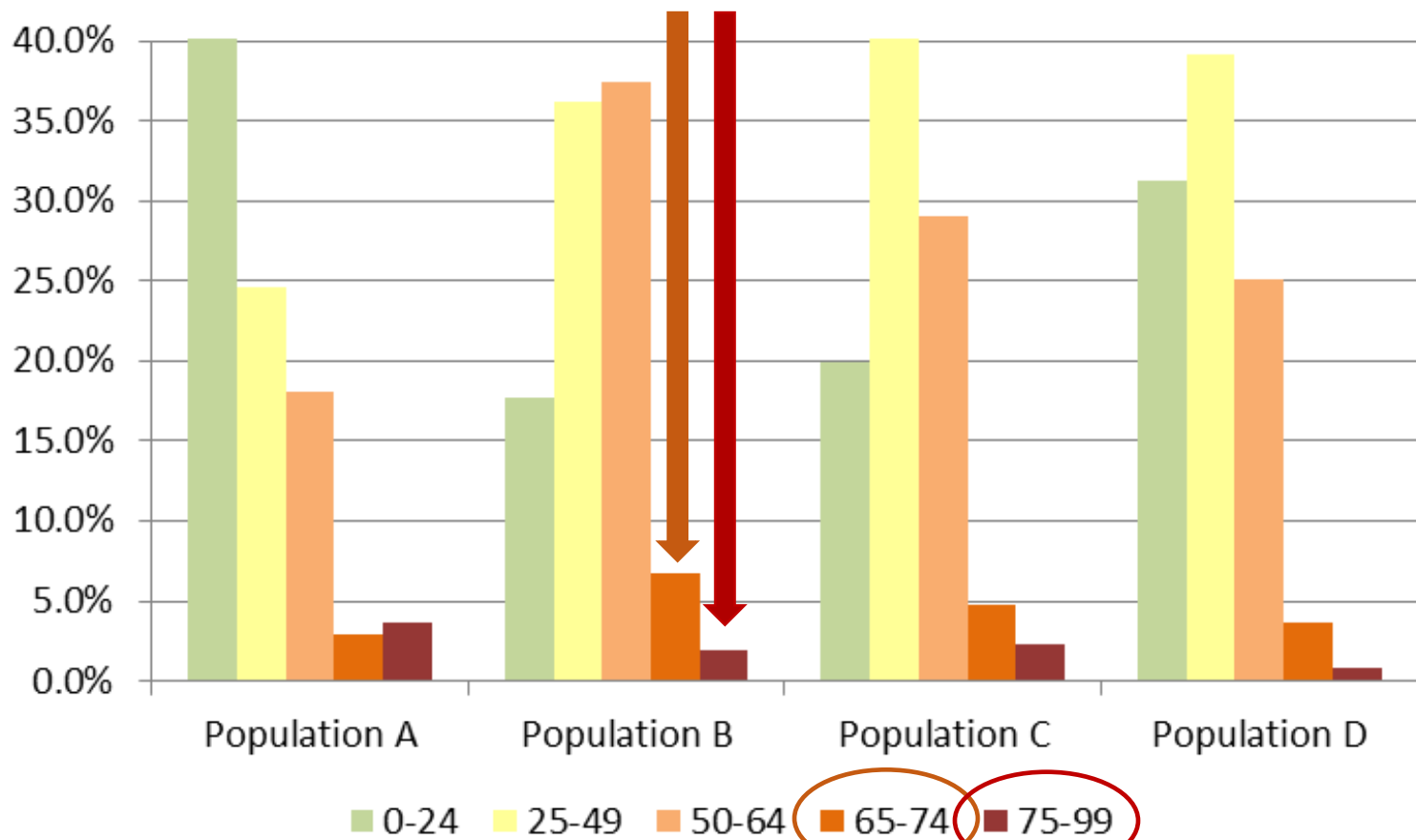


*Drug use* is an excellent prognostic indicator of bucket transition

# The “Silent” Cost Center: The “Near Sick”

“Second Bucket”  
(Actionable Cohort)

“Third Bucket”



**Global Score for Medication Management Need**

**What do you call a program that leads to medication optimization?**

**Medication Therapy Management.**  
**Medication Management.**  
**Pharmacy Care Services.**  
**Pharmaceutical Care.**  
**Drug Regimen Review.**  
**Drug Utilization Review.**  
**Clinical Pharmacy Services.**  
**Pharmacy Care Management.**  
**Pharmacy Cognitive Services.**  
**Medication Management Services.**



# **A Rose By Any Other Name Would Smell as Sweet.**

## **The Goal (Simply Put):**

Optimize Medication Use to Drive Better  
Outcomes

*(The substance of it is more important  
than the nomenclature)*

# **Medication Optimization: The Substance of it.**

# The Substance of It: Universal Elements

- **Well Coordinated**

All Medication Orders and Discontinuations are well known to the rest of the Care Team (*including caregivers*)

- **Goal-Oriented**

Each Medication Prescribed has a Therapeutic Goal Assigned to It

- **Continually Reinforced**

Every Encounter with the Health Care System includes re-visit and reinforcement of the Drug Use Plan

- **Drug Use Plan**

Each Patient's Drug Use Plan is Individualized

# Example: Transitions of Care



**Pharmacy**



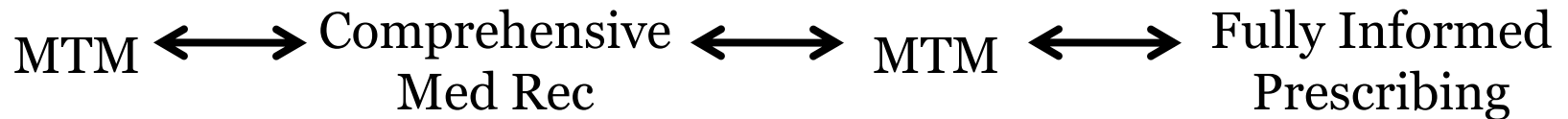
**Hospital**



**HH/Rehab/SNF**



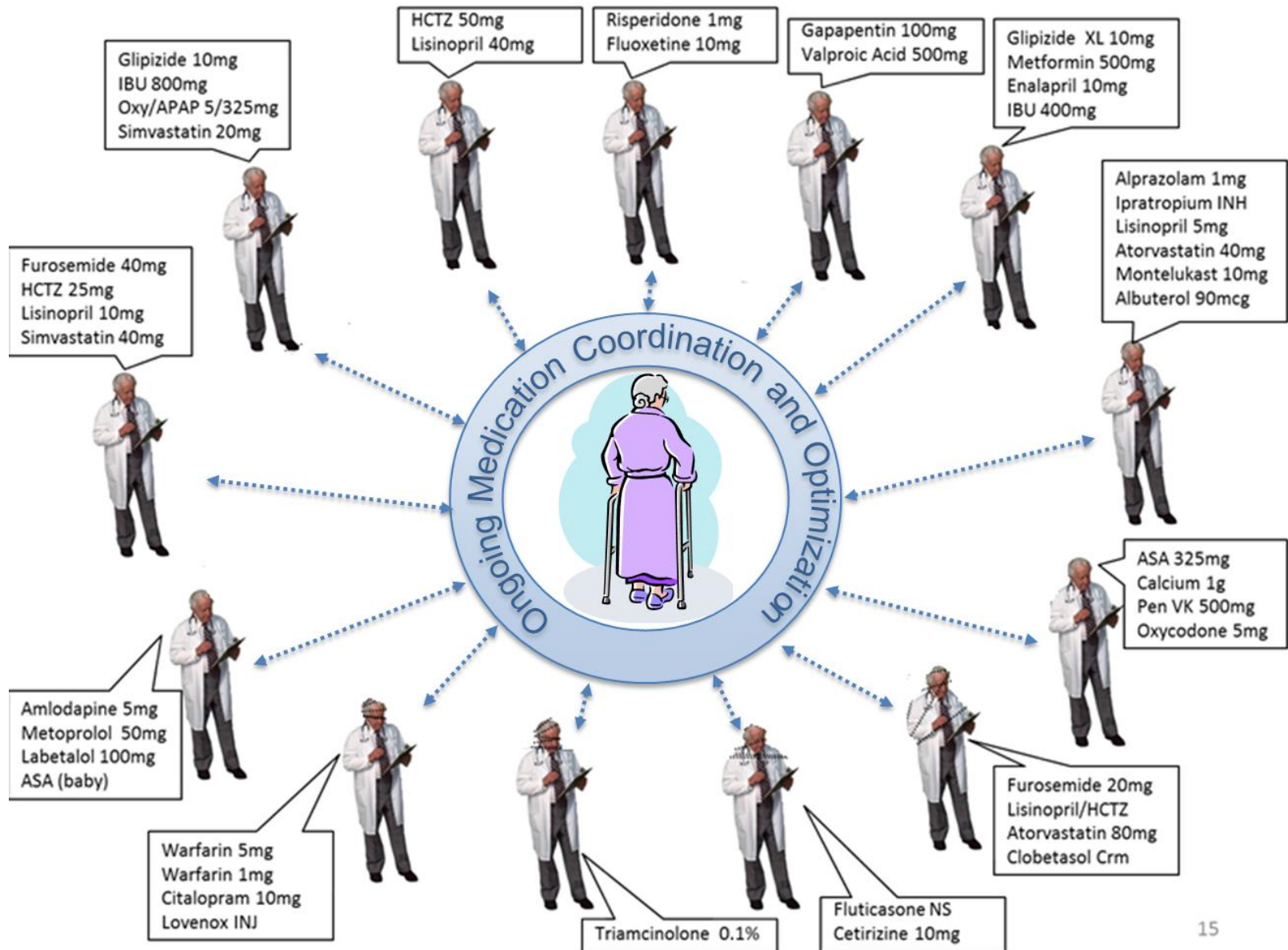
**Clinic**



Involves Multiple provider types involved in multiple settings

**Goal:** Create a 1) *Well-Coordinated*, 2) *goal-oriented*, 3) *continually re-enforced*, 4) *drug use plan*

# Example: Polypharmacy Management

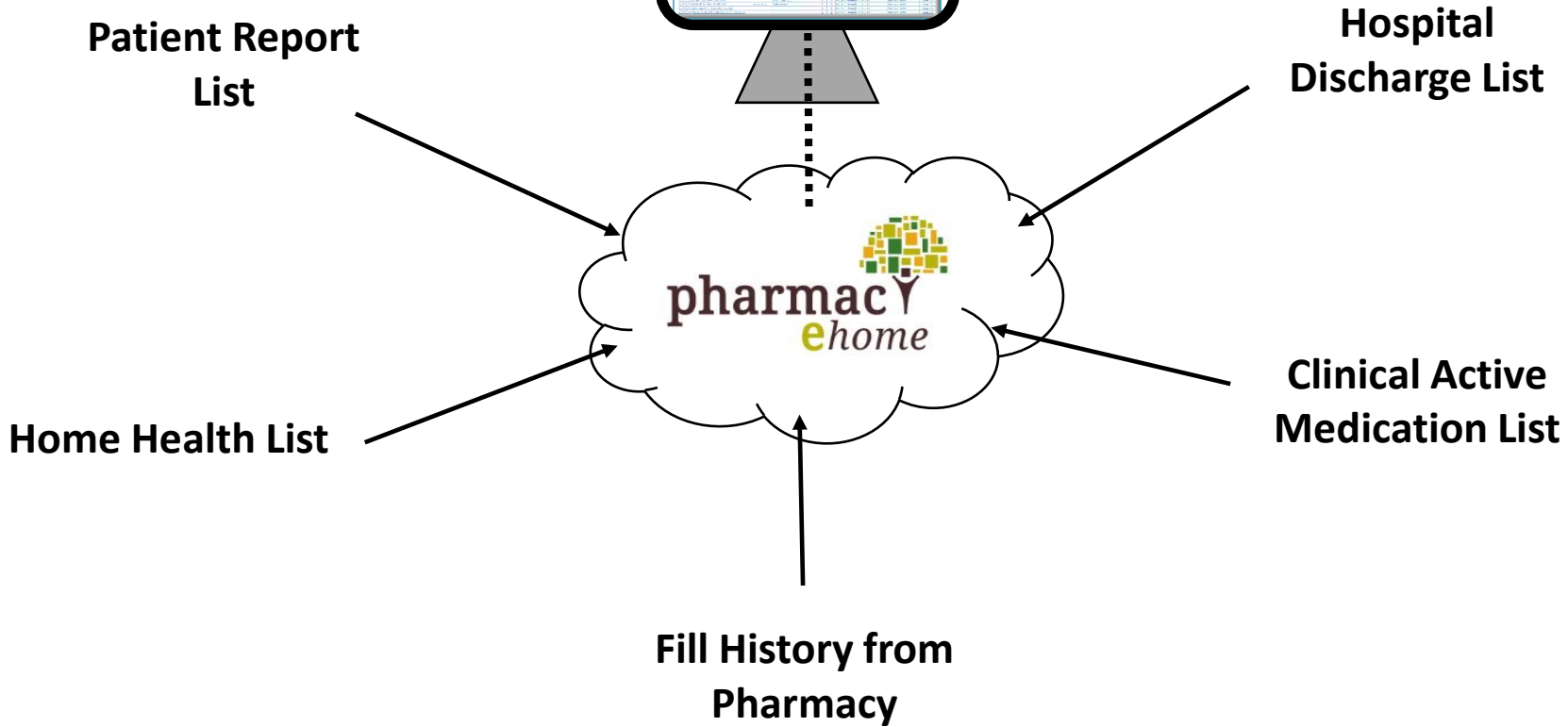
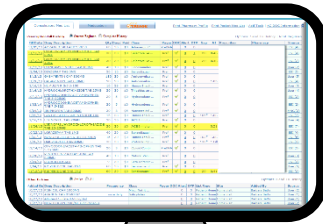


**Example Project here in Indiana.**



THE  
**Pharmacy Home**  
PROJECT

“Create a Pharmacy Home, virtual or otherwise, where **drug use** information from multiple sources\* is gathered to better inform prescribing and intervention strategies”





# Consolidated Med List



Consolidated Med List    Medication    **care TRIAGE**    Print Pharmacy Profile | Print Pocket Med List | Add Task | NC DOC Information

Prescription Fill History     Current Regimen     Complete History

Options: Send To History | Print Regimen

Fill Date	Drug Description	Qty	Days	Paid	Class	Payer	DOC	Alert	DTP	Gap	AI	Prescriber	Pharmacy	Source
11/09/13	ADVAIR DISKU AER 250/50	60	30	\$0	Adrenergic C ...	Pref/PA		0	0					ESI (4)
11/13/13	CITALOPRAM HYDROBROMIDE TAB 20MG	30	30	\$0	Selective Se ...	Pref	✓	0	1	20	0.46			ESI (4)
11/13/13	CITALOPRAM HYDROBROMIDE TAB 40MG	30	30	\$0	Selective Se ...	Pref	✓	0	0	20	0.46			ESI (2)
10/12/13	CLINDAMYCIN HCL CAP 300MG	40	10	\$0	Lincosamides	Pref	✓	0	0					User (2)
12/04/13	DIAZEPAM TAB 5MG	30	10	\$0	Benzodiazepi ...	Pref		0	0					ESI (2)
8/13/13	GABAPENTIN CAP 300MG	180	30	\$0	Anticonvulsa ...	Pref	✓	0	0					User (5)
11/26/13	GABAPENTIN TAB 600MG	90	90	\$0	Anticonvulsa ...	Pref	✓	0	0		1.05			ESI (4)
2/16/13	HUMULIN R INJ U-100	10	28	\$0	Human Insuli ...	Pref		0	0					User (5)
2/16/13	HYDROCHLOROTHIAZIDE TAB 25MG	30	30	\$0	Thiazides an ...	Pref	✓	0	0					User (4)
10/12/13	HYDROCODONE/ACETAMINOPHEN TAB 5-325MG	20	5	\$0	Hydrocodone ...	Pref	✓	0	0					ESI (2)
1/03/14	HYDROCODONE/ACETAMINOPHEN TAB 7.5-325	30	5	\$0	Hydrocodone ...	Pref	✓	0	0					ESI (2)
6/04/13	IBUPROFEN TAB 800MG	30	8	\$5	Nonsteroidal ...	Pref	✓	0	0					MNC (3)
8/22/13	LANTUS SOLOSTAR INJ SOLOSTAR	15	28	\$0	Human Insuli ...	Pref		0	0	105*	1.06			ESI (7)
2/16/13	LISINAPRIL TAB 20MG	30	30	\$0	ACE Inhibito ...	Pref	✓	0	0					User (4)
11/26/13	LISINAPRIL/HYDROCHLOROTHIAZIDE TAB 20-25MG	30	30	\$0	ACE Inhibito ...	Pref	✓	0	0		0.51			ESI (7)
10/22/13	LORAZEPAM TAB 1MG	40	20	\$0	Benzodiazepi ...	Pref	✓	0	0					ESI (4)
8/22/13	NOVOLOG FLEXPEN INJ FLEXPEN	15	30	\$0	Human Insuli ...	Pref		0	0	103*	1.06			ESI (5)
7/26/13	OMEPRAZOLE CAP 40MG	30	30	\$0	Proton Pump ...	Pref	✓	0	0	130*	1 Fill			ESI (3)
12/14/13	OXYCODONE/ACETAMINOPHEN TAB 5-325MG	20	3	\$0	Opioid Combi ...	Pref/PA	✓	0	0					ESI (3)
10/20/13	PENICILLIN V POTASSIUM TAB 500MG	40	10	\$0	Natural Peni ...	Pref		0	0					User (3)
7/24/13	PROAIR HFA AER	9	30	\$0	Beta Adrener ...	Pref		0	0					ESI (3)
7/04/13	RISPERIDONE TAB 1MG	60	30	\$0	Benzisoxazol ...	Pref	✓	0	0					User (6)
11/13/13	RISPERIDONE TAB 2MG	60	30	\$0	Benzisoxazol ...	Pref	✓	0	0	20	0.41			ESI (2)

Other Entries     Active     All

Options: Send To History

Added On	Drug Description	Frequency	Class	Payer	DOC	Alert	DTP	List Type	Site	Added By	Source
10/27/13	FISH OIL CAP 1000MG		Misc. Nutrit ...			0	0	Patient-Home	Home visit	Barbara Betts	User (2)
10/27/13	ASPIRIN TAB 81MG EC	once daily	Salicylates			0	0	Patient-Home	Home visit	Barbara Betts	User (1)
10/27/13	Albuterol Sulfate 0.63mg/3ml					0	0	Patient-Home	Home visit	Barbara Betts	User (1)
10/27/13	NOVOLOG INJ 100/ML subcutaneous					0	0	Patient-Home	Home visit	Barbara Betts	User (2)

# Medication Matrix



**Lists** View:  Active  All  
 By:  Type  Date  Creator  
[New Fill History List](#)  
**Fill History (1)**  
 Fill History (1)  
**Hospital (2)**  
 Admission (1)  
 Discharge (1)  
**Drafts (0)**

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**Hospital (1)**  
 Matrix: Discharge 2/25/13 (PharmD)  
 Site: Vidant Edgecombe Hospital T  
 Huyla Coker 2/25/13 9:38 PM  
[Insert](#) | [Deactivate](#) | [Error](#) | [Task](#)  
[Rename](#) | [Save As](#)

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**Drafts (0)**

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**Matrix - Discharge 2/25/13 (PharmD)** View By:  Drug Name  Condition  Drug Class [Print Matrix](#) X

Fill History	Admission	Discharge	DTPs
List: Automated Feed Site: Automated Feed Beverly Scruggs 2/25/13	List: H&P 2.22.2013 Site: Vidant Edgecombe Hospital Beverly Scruggs 2/25/13	List: Home Care Instructions 2/25/13 Site: Vidant Edgecombe Hospital Huyla Coker 2/25/13	
<input type="checkbox"/>	<input checked="" type="checkbox"/> ASA LO-DOSE TAB 81MG EC take one by mouth daily	<input checked="" type="checkbox"/> ASA LO-DOSE TAB 81MG EC take one by mouth daily	0
<input type="checkbox"/>	<input checked="" type="checkbox"/> ATACAND TAB 8MG Take by mouth daily.	<input checked="" type="checkbox"/> ATACAND TAB 8MG Take by mouth daily.	2
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> IBUPROFEN 800 MG TABLET 1 tid (w/ meals) for pai..	1
<input checked="" type="checkbox"/> LOSARTAN POT TAB 25MG 8/17/12   30   30d	<input type="checkbox"/>	<input type="checkbox"/>	0
<input checked="" type="checkbox"/> METOPROLOL TAB 50MG ER	<input checked="" type="checkbox"/> METOPROLOL TAB 50MG ER take one by mouth daily	<input checked="" type="checkbox"/> METOPROLOL TAB 50MG ER take one by mouth daily	0

# Shared Pharmacy Record



**Summaries** View:  Active  All

By:  Setting  Date  Creator

**Hospital (1)**

- Summary: SOAP 9/16/13 - Discharge
  - Site: Albemarle Hospital T
  - Huyla Coker 9/18/13 3:25 PM
  - [Open](#) | [Deactivate](#) | [Error](#) | [Task](#)
  - [Rename](#) | [Save As](#)

**Drafts (0)**

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**Patient Details**

[Current Date](#)

[Current User Full Name](#)

[Current User Email](#)

[Current User Phone](#)

[Patient ID](#)

[Full Name](#)

[First Name](#)

**Summary - SOAP 9/16/13 - Discharge** Print X

9/16/2013

Referral for med review following 9/15/13 discharge from Albemarle Hospital for acute renal failure.

Objective

See published matrix: Discharge 9/15/13 (PHarmD) for med lists reviewed

creatinine up to 1.7 but down to 1 at discharge

HgbA1c = 7.7

Assessments Options: [Add](#) | [Remove](#) | [Move Up](#) | [Move Down](#) Assessments

#	Date	Problem Type	Drug	Additional Drug	Priority	Notes
1	<a href="#">9/16/2013</a>	Monitoring needed to prevent ADE	HUMALOG MIX SUS 75/25		H	2
2	<a href="#">9/16/2013</a>	Additional therapy required	PREDNISONE TAB 10MG		M	2

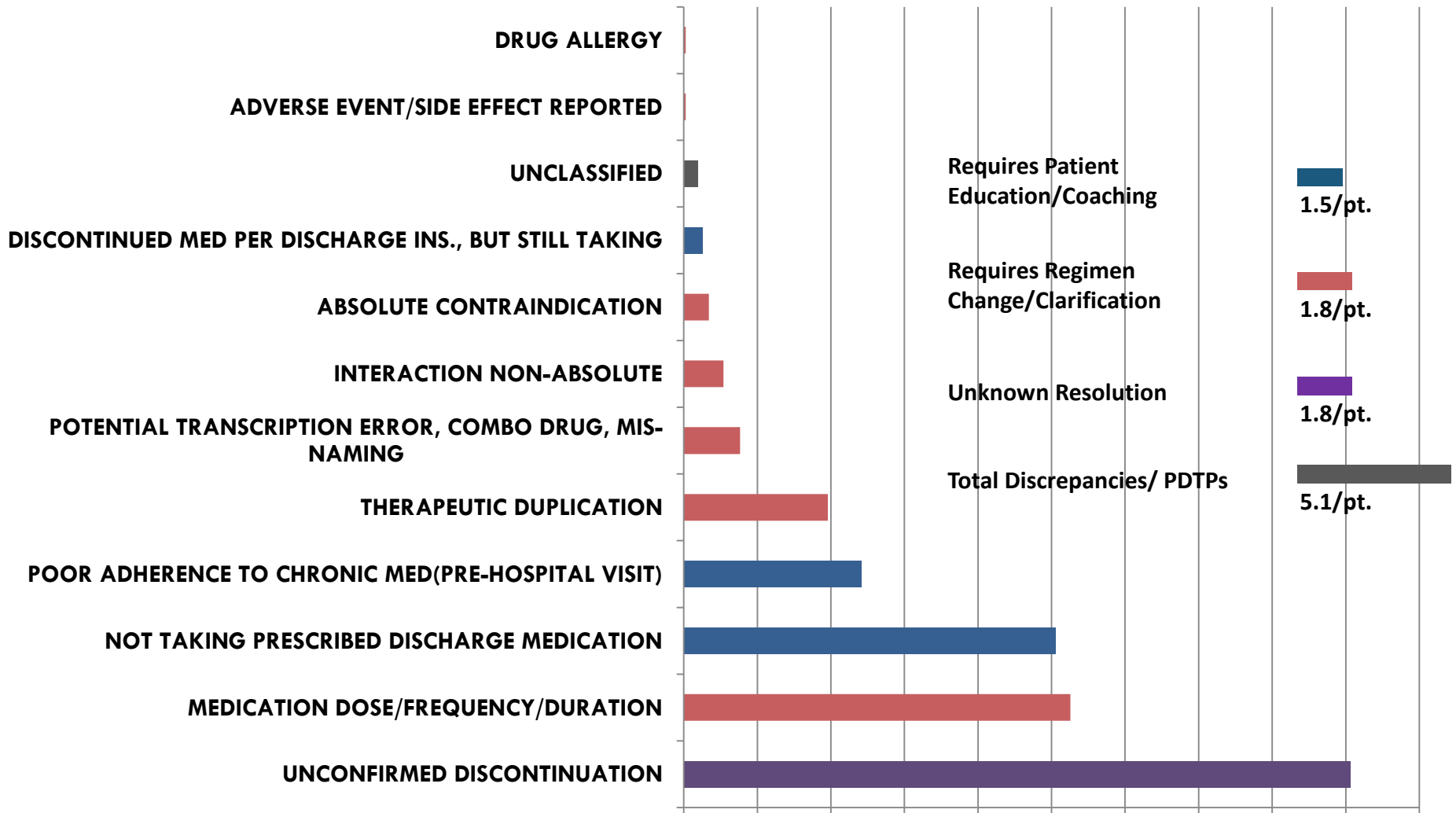
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**DTPs (Drug Therapy Problems)** View:  Active  All Options: [Add](#) | [Copy](#) | [Modify](#) | [Deactivate](#) | [Delete](#) | [Task](#) | [Print DTPs](#)

Date	Created By	Drug	Problem Type	Notes	Proposed Intervention	To Be Addressed By	Priority	Task
<a href="#">9/23/2013</a>	Chryl Pynn	IPRATROPIUM/ SOL ALBUTER	Medication name discrepancy	1	Refer to physician	Care Manager	M	
<a href="#">9/16/2013</a>	Huyla Coker	PREDNISONE TAB 10MG	Additional therapy required	2	Clarify order	Care Manager	M	

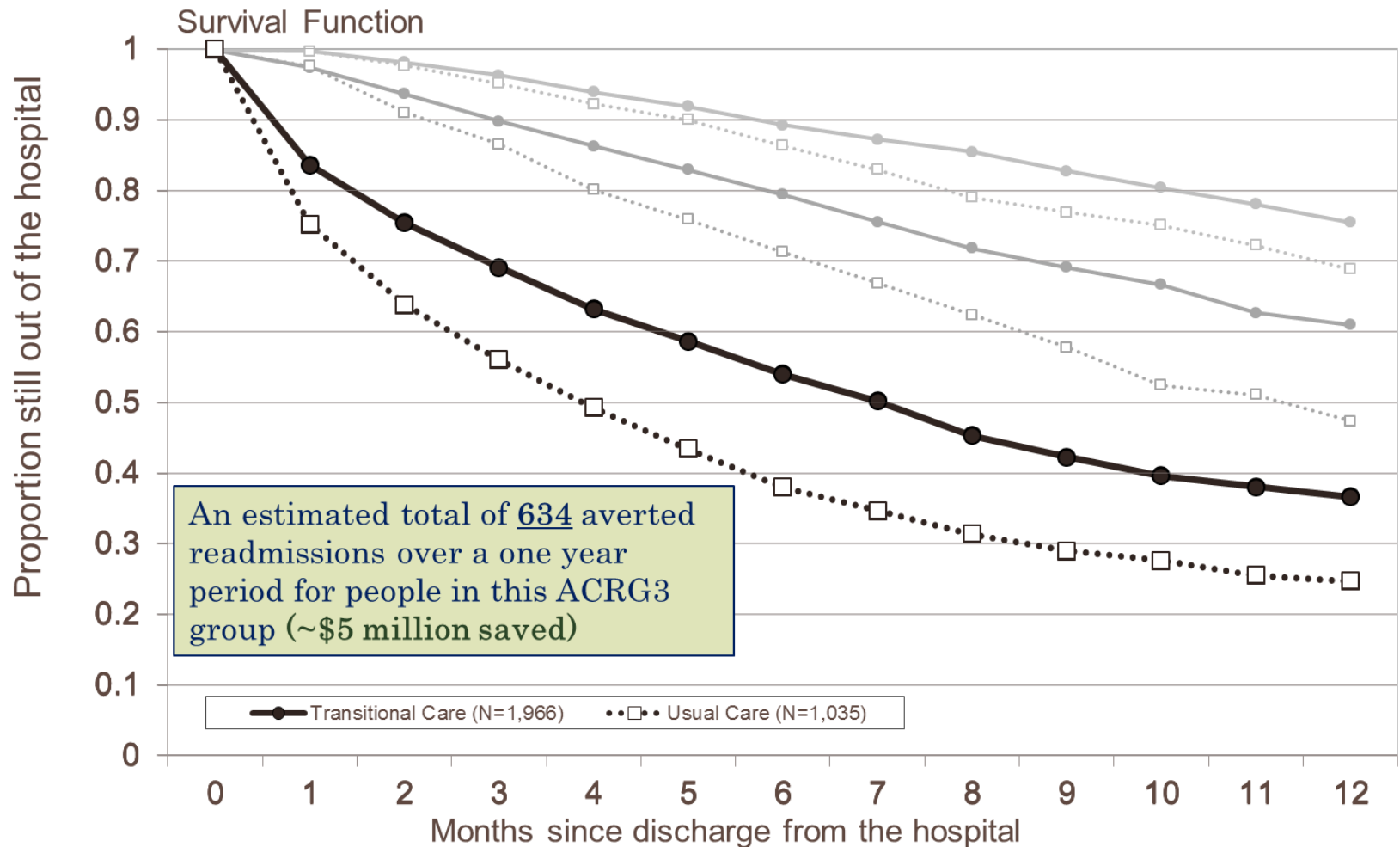
# Descriptive Findings from The Pharmacy Home Project

## Transitional Care: Prevalence of Med Discrepancies / Potential Drug Therapy Problems



# Transitional Care Example: Health Affairs

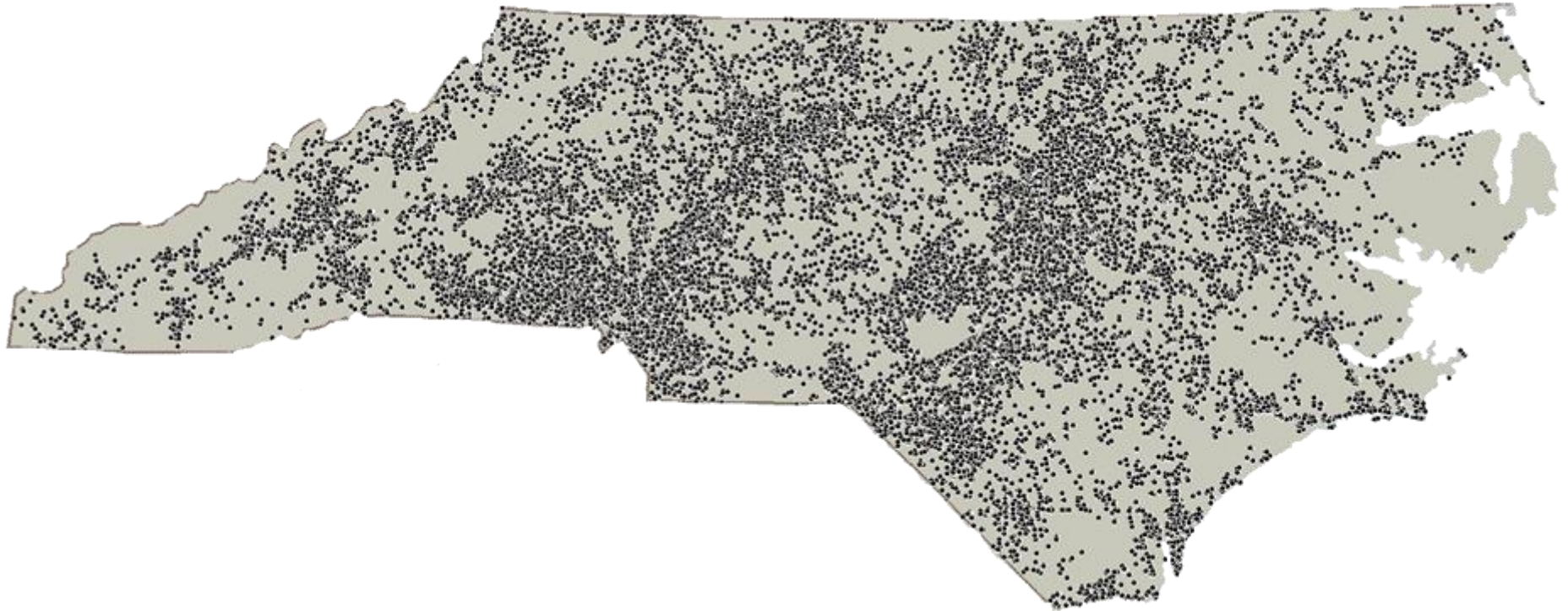
Time to First Readmission for Patients Receiving Transitional Care Versus Usual Care  
Lighter shaded lines represent time from initial discharge to second and third readmissions  
(Significant Chronic Disease in Multiple Organ Systems, Levels 5 & 6; ACRG3 = 65-66)



All CCNC enrolled at the time, or within 30 days, of discharge; inpatient discharges during SFY2011, excluded members dually enrolled at any point during the study period.



# Scale matters.



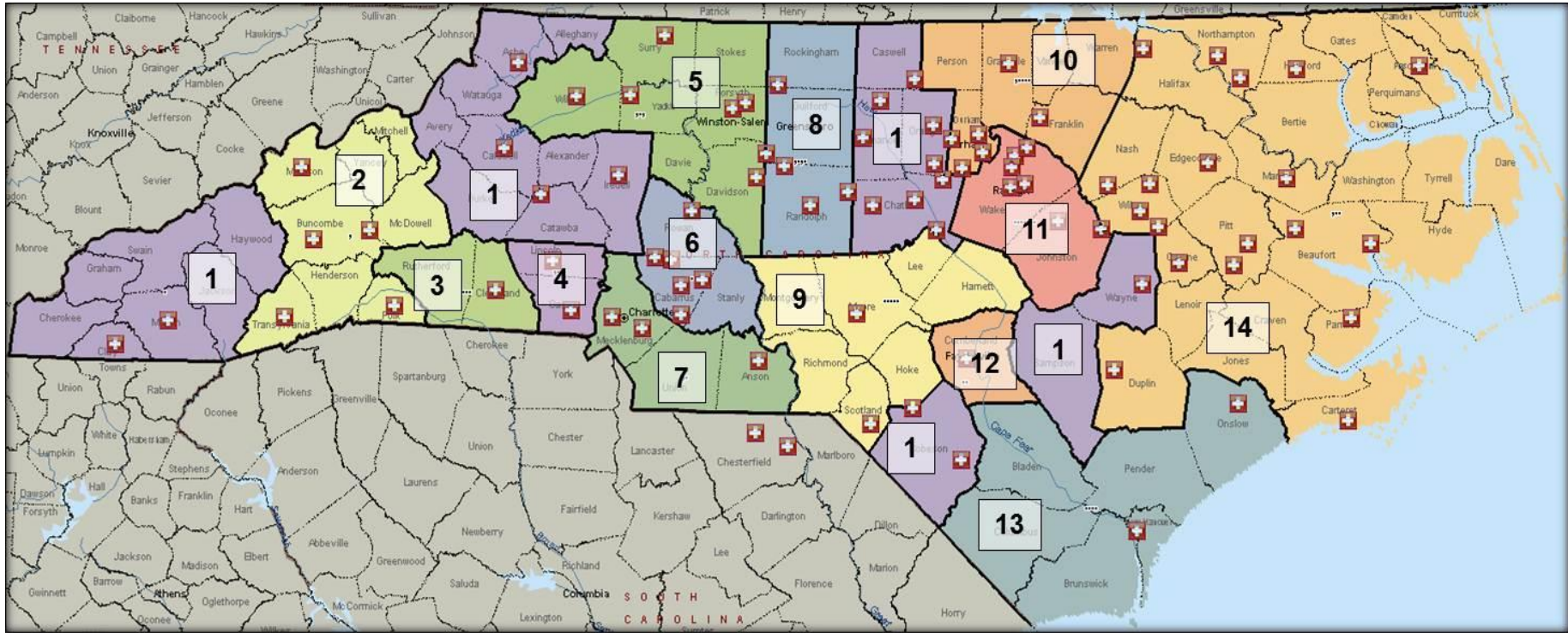
Each dot represents the home address of a client who received transitional care services between July 2011 and June 2012. As of December 2012, we are providing transitional care management for approximately 4500 patients per month.

**Community Pharmacy Emerging.**

# CCNC Focus Population(s)

	<b>CCNC Enrollees</b>	<b>CCNC Enrollees with total medical cost &gt; \$10,000</b>	<b>Enrollees on CCNC Priority list</b>	<b>Enrollees on TC Priority list</b>	<b>Enrollees on Medication Management Priority list</b>
Total number of members	<b>1,348,229</b>	112,529	17,753	153,241	6,377
Total medical cost	<b>\$ 4,078</b>	\$ 27,527	\$ 23,813	\$ 18,215	\$ 25,345
# of Inpatient visits	<b>0.11</b>	0.52	1.41	0.45	1.04
Inpatient costs	<b>\$ 369</b>	\$ 3,464	\$ 5,337	\$ 2,924	\$ 6,456
# of mental health inpatient vi	<b>0.01</b>	0.04	0.04	0.04	0.04
ED visits	<b>0.67</b>	1.65	2.94	1.74	3.05
ED cost	<b>\$ 178</b>	\$ 745	\$ 1,262	\$ 816	\$ 1,657
Outpatient visits	<b>4.30</b>	9.43	12.04	8.70	12.28
Mental health outpatient visit	<b>0.62</b>	1.88	1.04	1.53	1.14
PCP visits	<b>2.09</b>	2.91	2.53	2.65	3.52
Pharmacy costs (Pre Rebate)	<b>\$ 721</b>	\$ 5,177	\$ 3,342	\$ 4,298	\$ 6,183





- |  |  |   |
|--|--|---|
| 1) AccesCare                           | 7) Community Care                            | 12) Carolina Collaborative                  |
| 2) Community Care of Western Carolina  | Partners of Greater Mecklenburg              | Community Care                              |
| 3) Carolina Community Health Partners  | 8) Partnership for Community Care            | 13) Community Care of the Lower Cape Fear   |
| 4) Community Health Partners           | 9) Community Care of the Sandhills           | 14) Community Care Plan of Eastern Carolina |
| 5) Northwest Community Care Network    | 10) Northern Piedmont Community Care         |   |
| 6) Community Care of Southern Piedmont | 11) Community Care of Wake/Johnston Counties |   |

**Historical Findings of *Intensive*  
Medication Optimization  
Programs.**

# Med Optimization: by the Numbers....

## Medicare and Medicaid

Carillion Clinic	-Estimated 3-Year savings \$4,308,295 (~2,500 patients)
Mississippi-Medicaid	-\$2,655/year reduction in Total Cost of Care
Minnesota-Medicaid	-\$403.30 saved per patient/ year for diabetes
Connecticut-Medicaid	-\$472 reduction in medical and hospital costs/year

-Thanks to Gloria Sachdev for Compiling

# Med Optimization: by the Numbers....

## State Employees

Maryland P3 Program-

-~\$980/year reduction in Total  
Cost of Care  
-ROI \$3.5:\$1.0  
-Reduced A1C, LDL, and BP

KY PharmacistCARE-

-Reduced A1C, LDC, TC, TGs  
-Inc. Immunizations/Screenings

# Med Optimization: by the Numbers....

## Self-Insured Employers

Ashville Project

- ~\$1,200 Reduction in PMPY Cost
- \$CV Events Reduced from 77/100  
to 38/1000
- Reduced A1C, LDL, TGs, TC, BP

Multi-Employer  
Cardiovascular Project

- \$1.6/\$1.0 ROI in first 6 months

Ten City Challenge

- \$1,079 Reduction in PMPY Cost
- Dramatic improvements in  
immunizations and screenings

-Thanks to Gloria Sachdev for Compiling

Smith M, et al. In Connecticut: Improving Patient Medication Management In Primary Care. Health Affairs 2011:646-654.

Ramalho de Oliveira, et al. Medication Therapy Management: 10 Years of Experience in a Large Integrated Health Care System. J Manag Care Pharm 2010;16:185-95

DeName B, Divine H, Nicholas A, Steinke DT, Johnson CL. Identification of medication-related problems and health care provider acceptance of pharmacist recommendations in the DiabetesCARE program. J Am Pharm Assoc (2003). 2008 Nov-Dec;48(6):731-6. doi: 10.1331/JAPhA.2008.07070.

Bunting BA, Cranor CW. The Asheville Project: long-term clinical, humanistic, and economic outcomes of a community-based medication therapy management program for asthma. J Am Pharm Assoc (2003). 2006 Mar-Apr;46(2):133-47.

Bunting BA, Smith BH, Sutherland SE. The Asheville Project: clinical and economic outcomes of a community-based long-term medication therapy management program for hypertension and dyslipidemia. J Am Pharm Assoc (2003). 2008 Jan-Feb;48(1):23-31. doi: 10.1331/JAPhA.2008.07140.

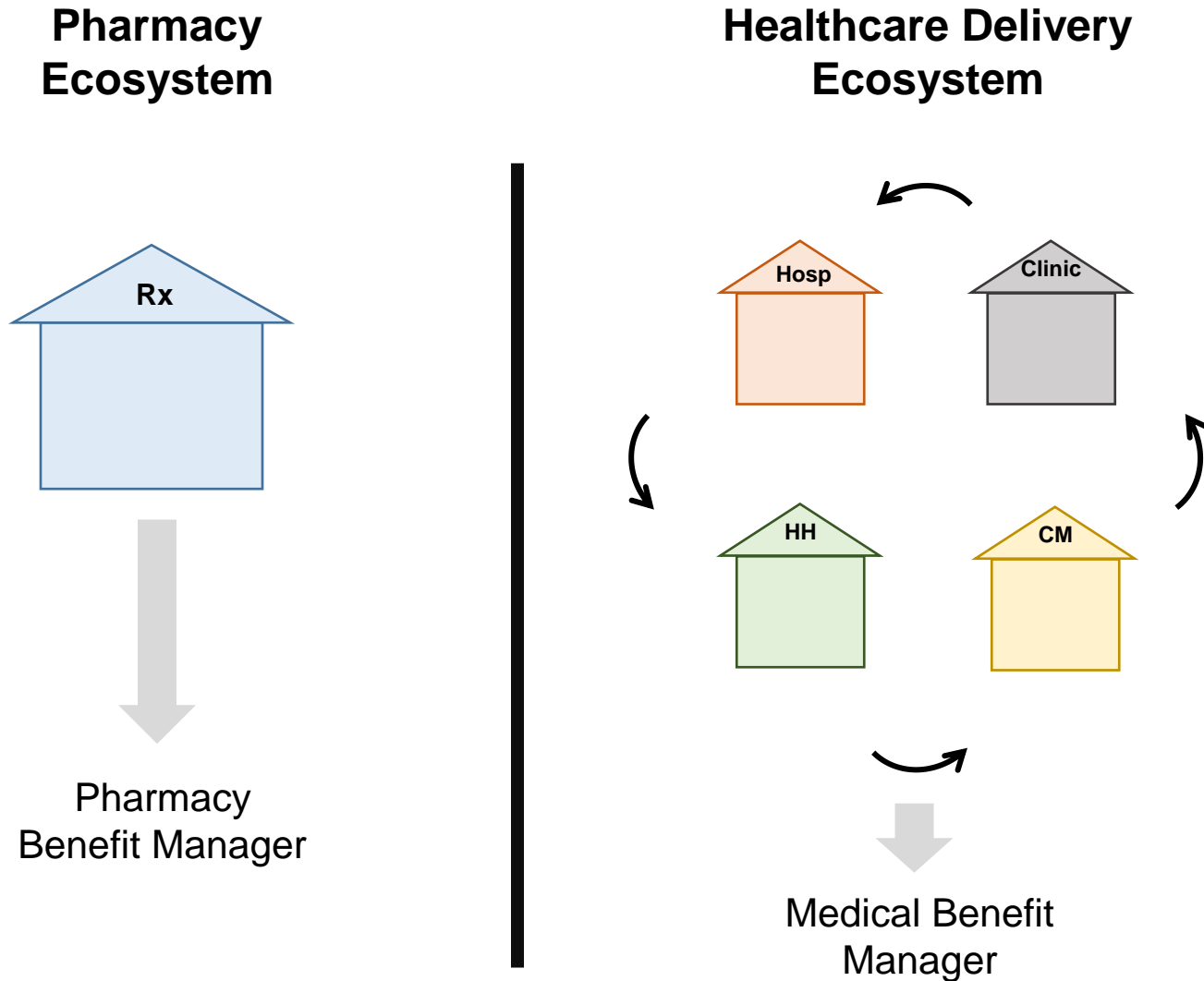
Wittayanukorn S, Westrick S, Hansen RA. Evaluation of Medication Therapy Management Services for Patients with Cardiovascular Disease in a Self-Insured Employer Health Plan.

Fera T, Bluml BM, Ellis WM. Diabetes Ten City Challenge: Final economic and clinical results. J Am Pharm Assoc. 2009; 49:383-91.

-Thanks to Gloria Sachdev for Compiling

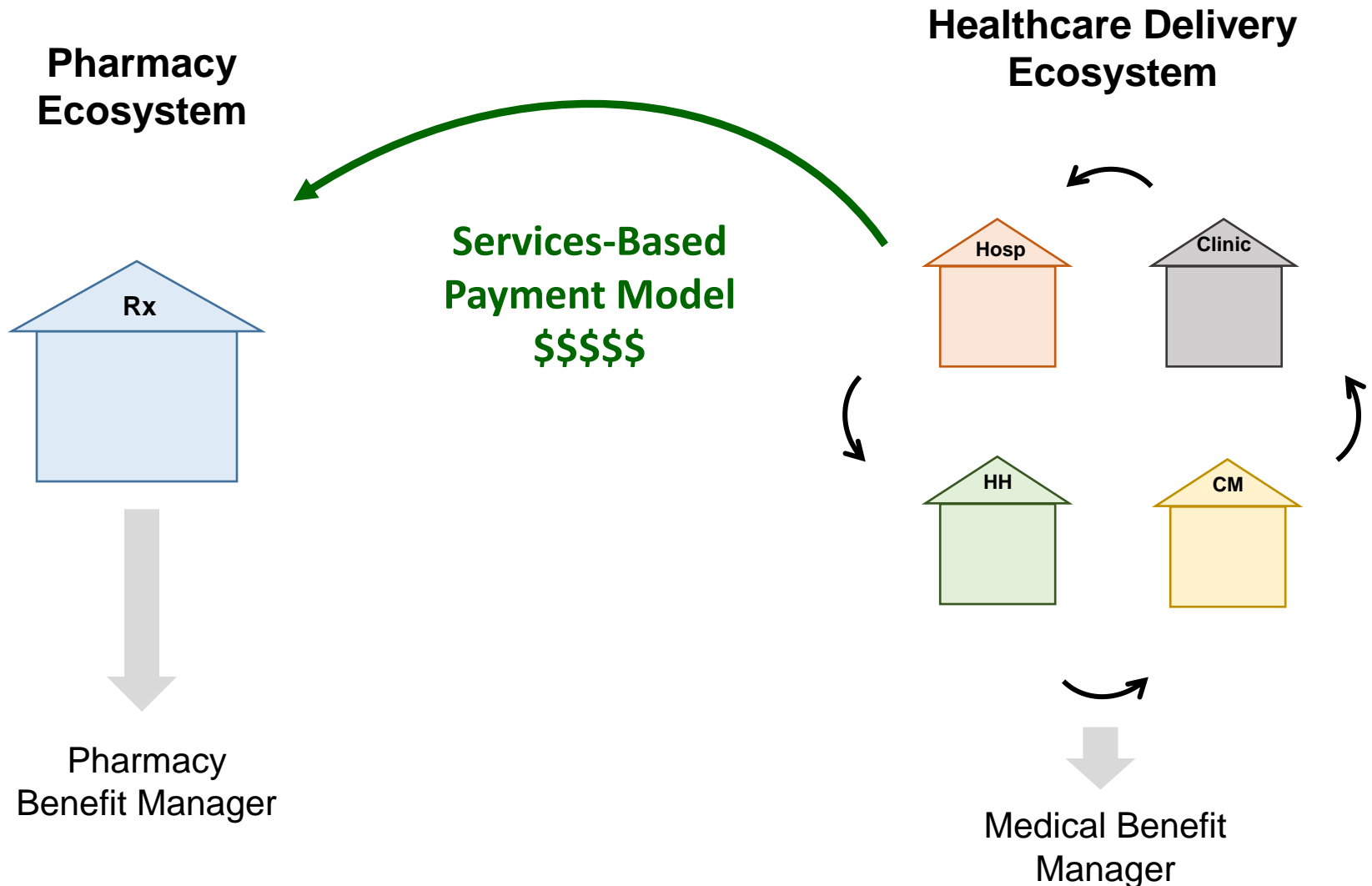
**You are in an Advantageous  
Position as Employers**

# Pharmacy Benefits and Medical Benefits: A world apart.



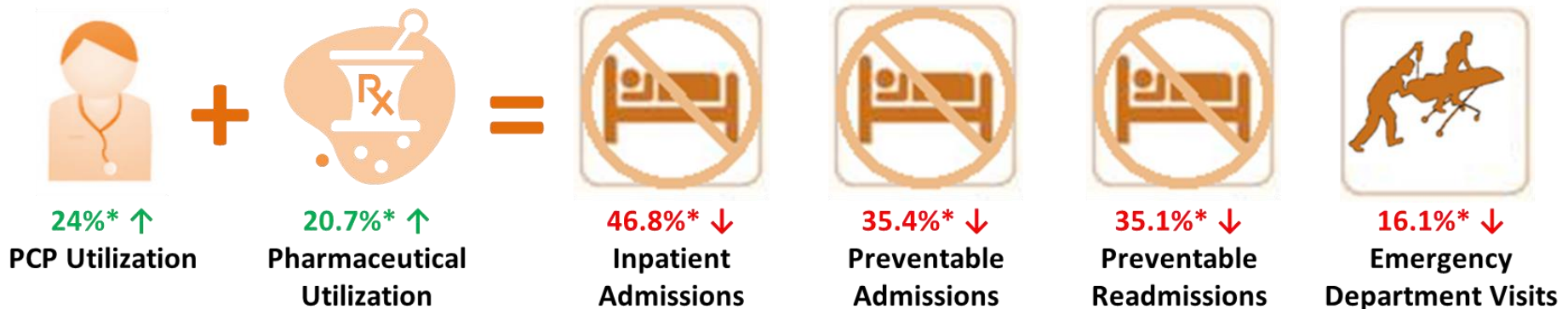


# Pharmacy Benefits and Medical Benefits: Bridging the Gap.



# Pharmacy Benefits and Medical Benefits:

When considered together- Primary Care and Medication Use become *Investments* – *Not Cost Centers*



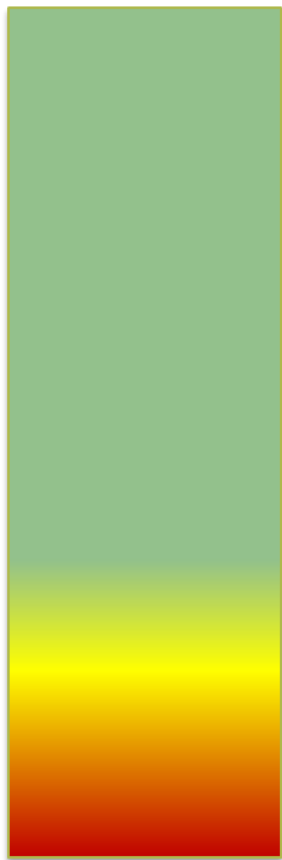
\*Absolute percentage difference between actual and expected rates for CCNC enrolled vs. unenrolled  
Treo Solutions Performance Analysis: Healthcare Utilization of CCNC-Enrolled Population - 2010 ABD Enrolled vs. ABD Unenrolled

\*CCNC Medical Home Findings

**Final Thought.**

# The Importance of Time Horizon and Program Expectations

Population  
Risk



Return on Intervention Investment in Years 6-80  
*(e.g. Vaccines, Well Child Visits)*

Return on Intervention Investment in Year 2-5  
*(e.g. Care Gaps)*

Return on Intervention Investment in Year 1  
*(e.g. Transitional Care)*

Quality of  
Care  
Efforts

Cost  
Savings  
Efforts

**Questions?**