

“PHARM-2-PHARM” HEALTH CARE INNOVATION AWARD

A COLLABORATION COORDINATED THROUGH THE CENTER
FOR RURAL HEALTH SCIENCE



Operating Partners:

Hawaii Pacific Health
Hawaii Health Systems Corporation
Hawaii Community Pharmacist Association

Support Partners:

Hawaii Health Information Exchange
Hawaii Health Information Corporation
Altarum Institute

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Community Consulting Pharmacist, North Shore Pharmacy

THE VISION OF PHARM-2-PHARM

Leverage underutilized pharmacist expertise across the continuum of care to achieve the three-part aim of the CMS Innovation Center:

- Better care
- Better health
- Lower total costs

“Pharm2Pharm” = “Hospital Pharmacist to Community Pharmacist” care transition and coordination model focused on medications



BEFORE THERE WAS PHARM-2-PHARM, THERE WAS THE MINNESOTA EXPERIENCE...

- * “Beginning in 1999, Fairview Health Services of Minneapolis/St. Paul implemented the ‘Collaborative Practice of Pharmaceutical Care’ at 6 of 15 primary care clinics, where pharmacists now play an integral role in the delivery of care”
- *RESULTS:
 - Improvements in clinical outcomes
 - Reductions in cost



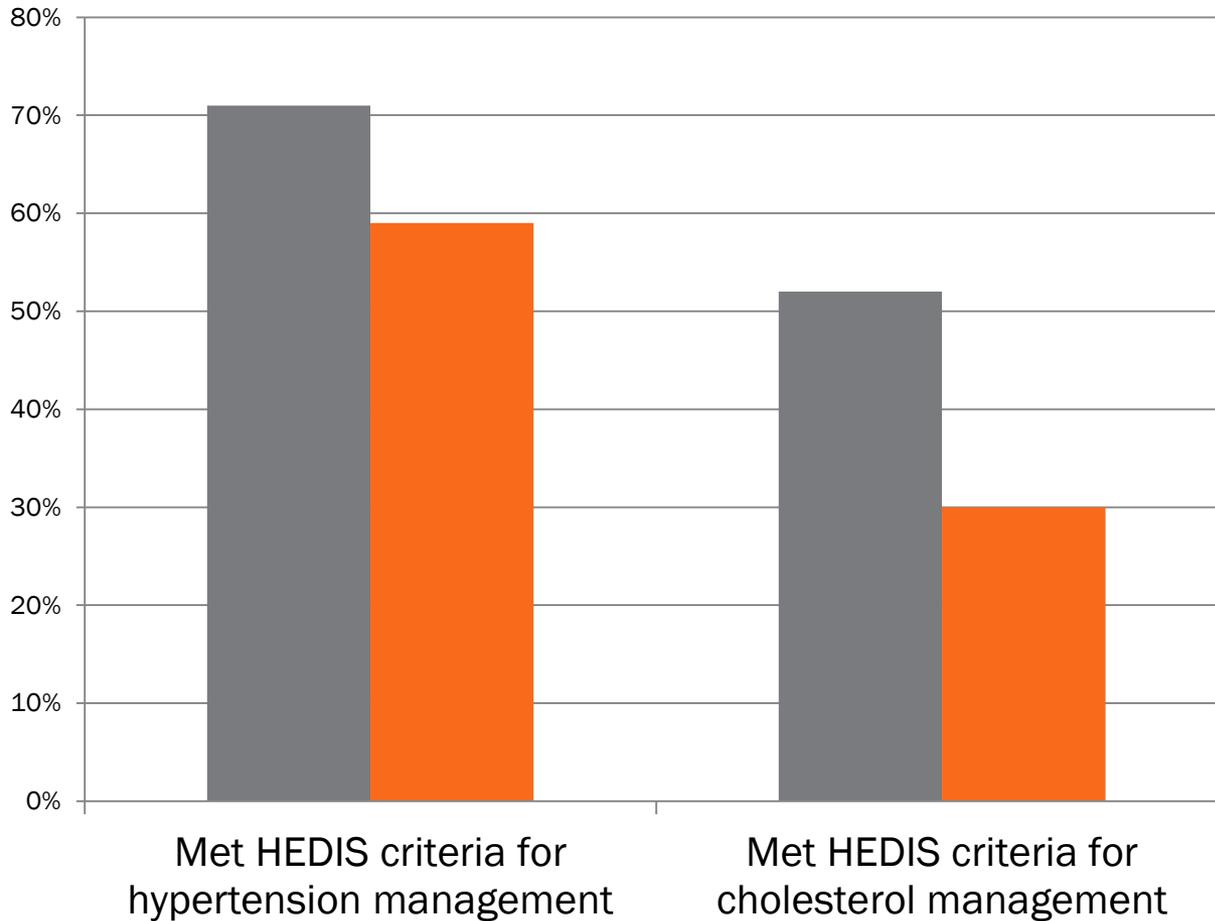
*Isetts et al., **Clinical and economic outcomes of medication therapy management services: The Minnesota experience.**

J Am Pharm Assoc. 2008;48:203-214

<http://japha.org/article.aspx?articleid=1043431#Methods>



IMPROVED PATIENT OUTCOMES



- Patients receiving face-to-face medication management services provided by pharmacists
- Comparison group NOT receiving these pharmacist services



*Isetts et al., Clinical and economic outcomes of medication therapy management services: The Minnesota experience.

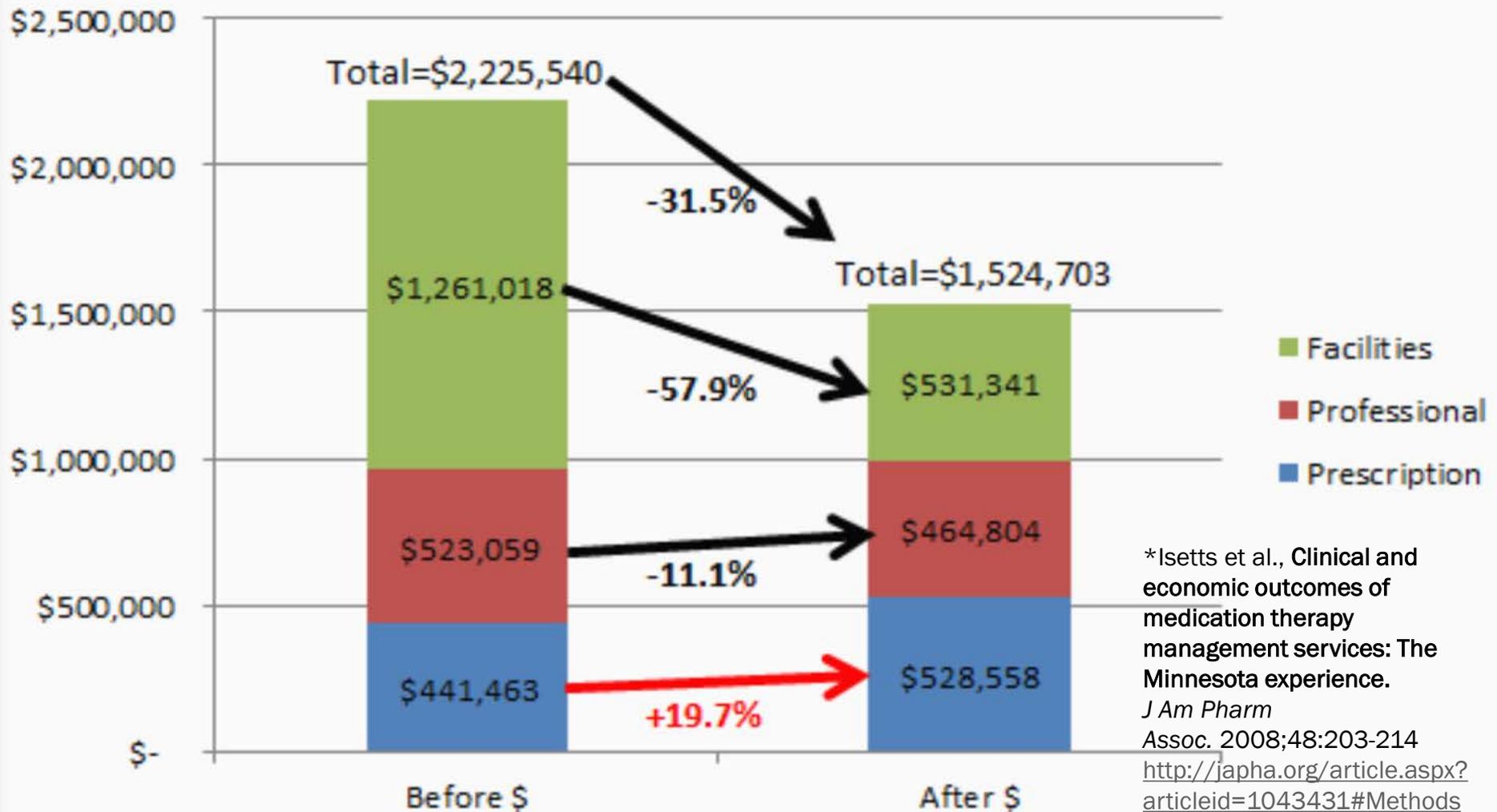
J Am Pharm Assoc. 2008;48:203-214

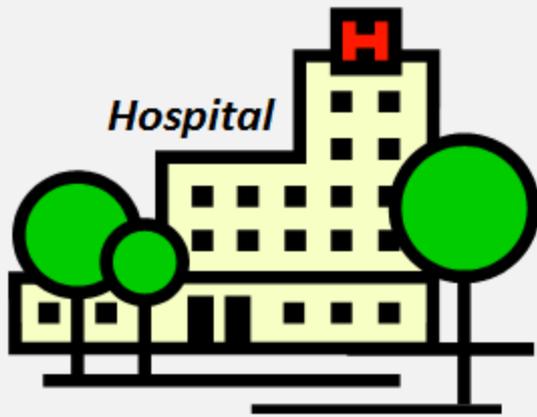
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REDUCED TOTAL COST OF CARE (EVEN WITH INCREASE IN DRUG COSTS)

Claimed annual health expenditures before and after pharmacist medication management (n = 186)





Hospital

DISCHARGED TO HOME

Patient



PCPs & Specialists



PHARMACIST ROLE:

- Dispense medications
- Answer clinician questions
- Manage formulary

RISK/GAP: Medication discrepancies?

RISK/GAP: Adequate medication instructions?

RISK/GAP: Patient has timely access to follow up care?

RISK/GAP: Patient picks up meds?

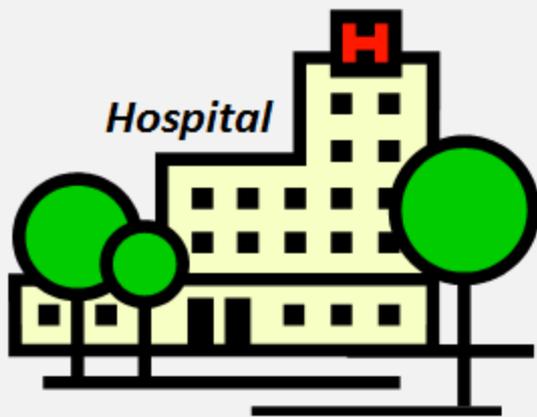


Community Pharmacies

PHARMACIST ROLE:

- Dispense medications
- Answer patient questions

TRADITIONAL MODEL



Hospital



Patient



PCPs & Specialists

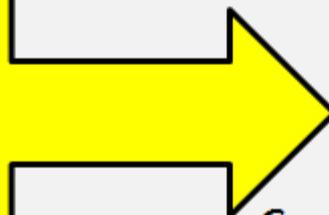


PHARMACIST ROLE:

- Dispense medications
- Answer clinician questions
- Manage formulary

ADDED PHARMACIST ROLE:

- Identify patients at risk
- Medication reconciliation
- Patient education
- Hand-off to community pharmacist
- Readmission reviews



Community Pharmacies

ADDED PHARMACIST ROLE:

- Medication management across prescribers and pharmacies for 1 year

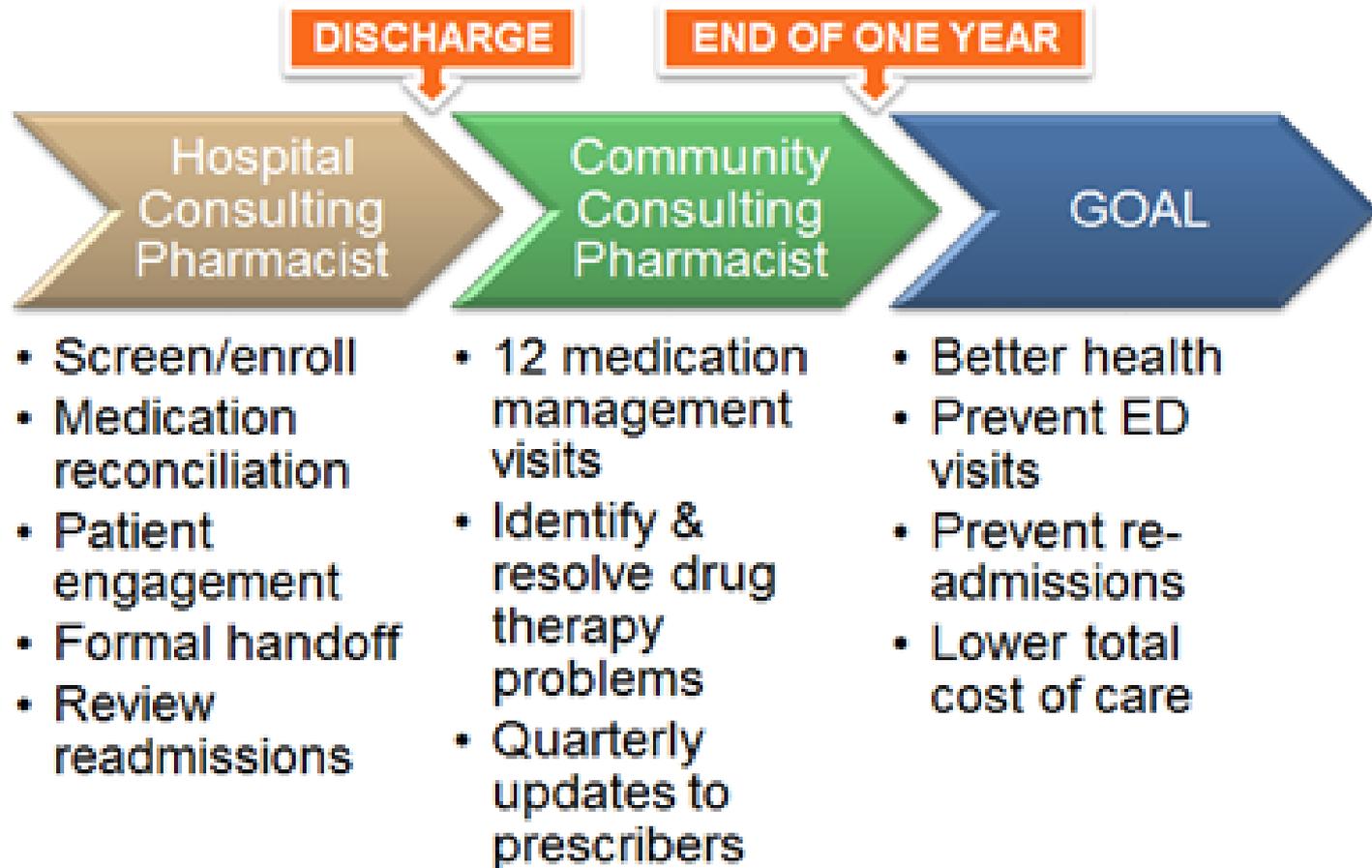
PHARMACIST ROLE:

- Dispense medications
- Answer patient questions

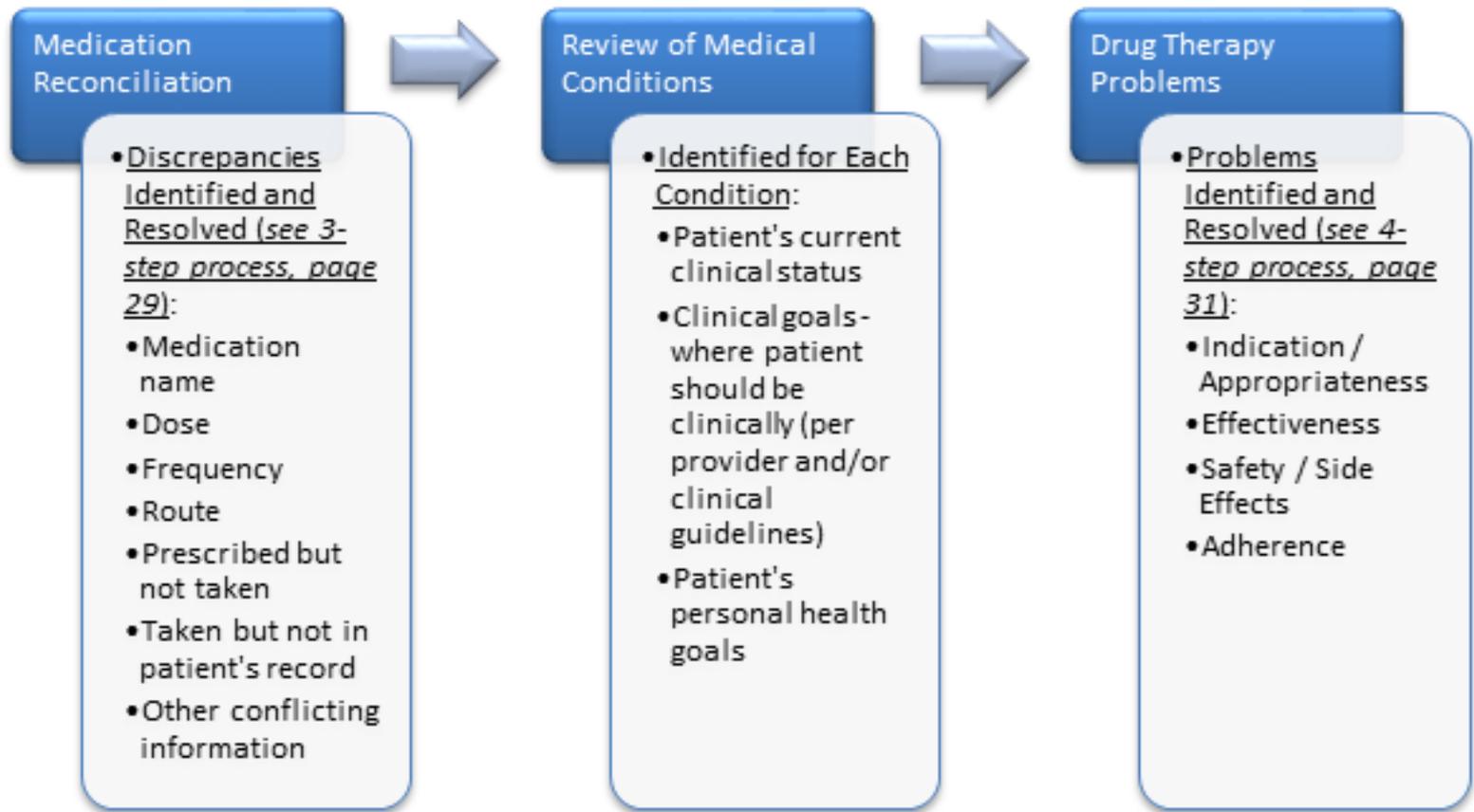


“Pharm2Pharm” MODEL for HIGH RISK PATIENTS

Pharm2Pharm Patient Timeline



PHARM-2-PHARM MEDICATION PROCESSES*



Medicaid ON

*Adapted from: Pharmaceutical Care Practice – The Patient Centered Approach, Cipolle, Morley, and Strand, 3rd Edition, McGraw Hill, 2012

MODEL IMPLEMENTATION TO DATE

Launched in 4 counties: Maui, Kauai, Hawaii, Honolulu

Over 1,500 patients enrolled and handed off to Community Consulting Pharmacists

Through intensive CQI efforts, implemented and revised

- Standard Operating Procedures
- “Toolkit”
- Training



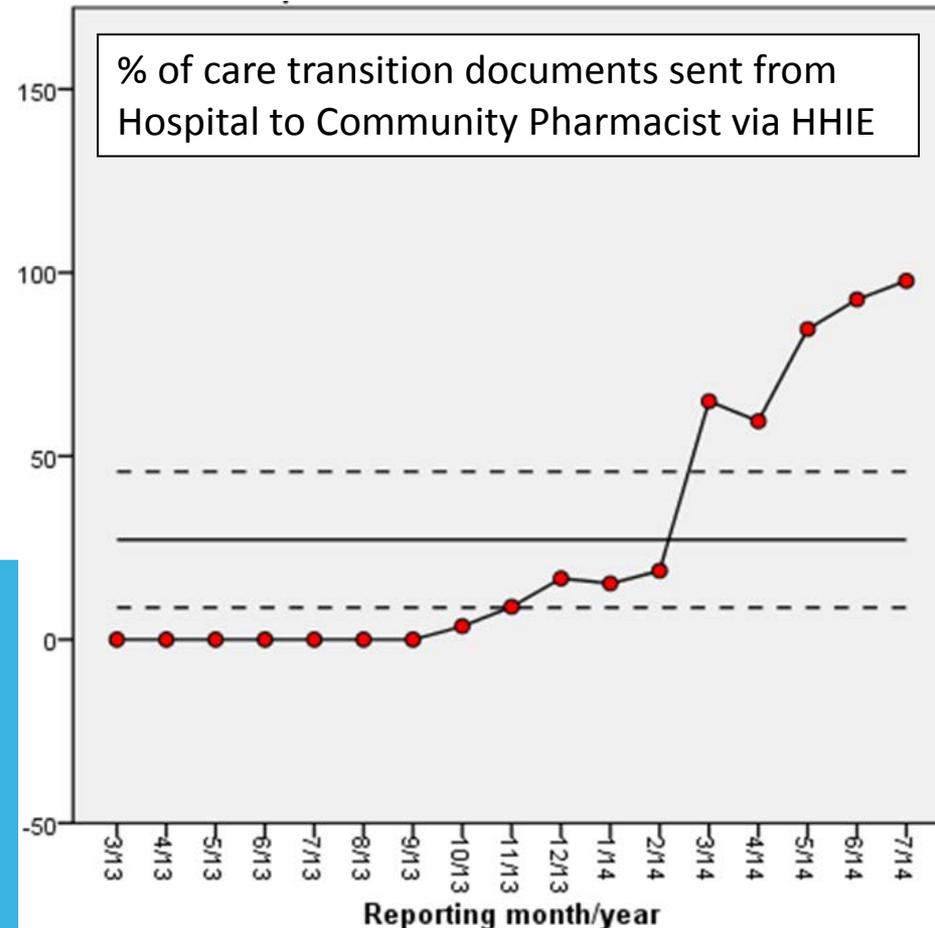
HEALTH INFORMATION TECHNOLOGY PROGRESS

Lab access: Majority of physicians have authorized the Consulting Pharmacists to have access to their enrolled patients' labs via HHIE

HCS Med 360: Consulting Pharmacists are now using this to conduct preliminary medication reconciliation and maintain accurate medication list.

Virtual translation service: Now available to Community Consulting Pharmacists, allowing non-English speaking patients to be enrolled

Secure messaging: All care transition documents are now being sent by the Hospital Consulting Pharmacist to the Community Consulting Pharmacist via HHIE's secure messaging system



HCS MED 360

14+ Robust data sources including but not limited to:

PBM's

- MedCo, Caremark, Catamaran, ExpressScripts, Argus

Pharmacies

- CVS, Walgreens, Safeway

Insurance

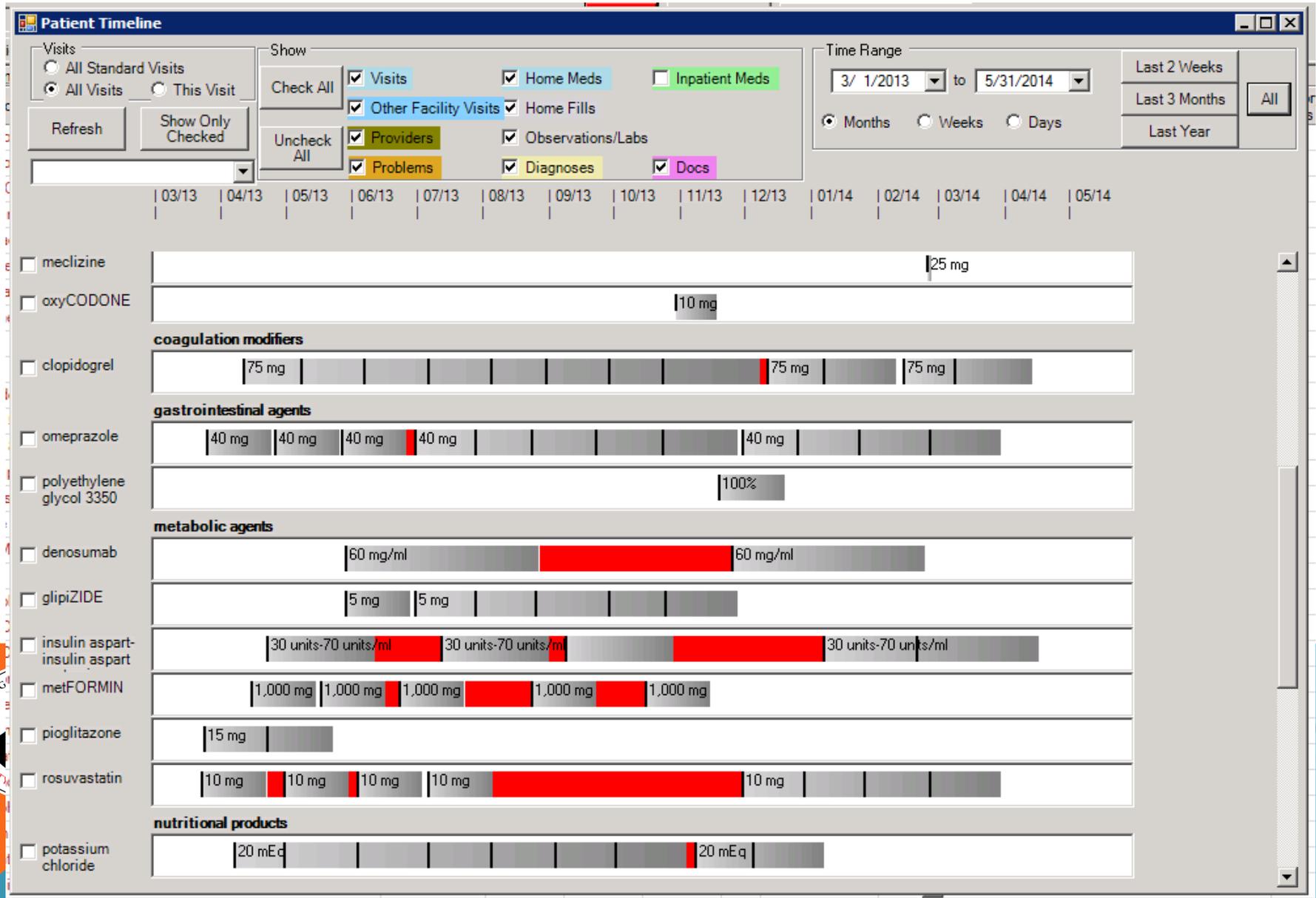
- HMSA, Wellpoint, Aetna, Humana, Humana

Surescripts



HCS MED 360 VIA HHIE

Longitudinal fill history screen shot: shows gaps in med use



HCS MED 360 VIA HHIE

Pill Identifier

Side 1 Markings Side 2 Markings

Shape Color



© Cerber Multum

Dilacor XR - 180 mg



HCS MED 360 VIA HHIE

Completed Med Rec Screen Shot: shows “inactivated med’s” (previous doses and regimens), clinician-added OTC’s and herbals

System Work Patient Med Rec Reports Admin Tools Help Set Current Facility



Name **New_Enrollee** DOB **3/ 9/1940** 74 years Location **Demo Island Pharm** PCU **Demo** Hospital No **DEMO001879**

Allergies **penicillin (anaphylaxis), shellfish (rash), sulfa drug (rash)** Sex **Female** Ht **cm** Wt **210.00** lb

Diag/Prob **BSA** **0** **m**²

Notes **Timed** Assessment **PREFPHARM - LONGSD**

Patient Med Rec Observations Reports

History Variance Admission Transfer Discharge

Source	Class	Description	Brand	Dose	Route	Frequency	PRN	Last Dose Date	LD Time	Notes to Patient	History Notes	Updated By	Prescriber	Qty	Days Supply	Refills	Order Date	Last Fill	Pharmacy
CV	central ne	acetaminophen-aspirin-caffeine 250 mg-250 mg-65 mg TAB	Excedrin	Unknown	PO	qd	Unknown					Uyemoto, Patric							
CV	respirator	albuterol CFC free 90 mcg/INH AERO	Ventolin HFA	Unknown	INH	prn	06/10/14			INHALE 2 PUFFS BY MOUTH EVERY 4 HOURS		Pagonia, Natalie	PARK, KITAE	17	1	05/15/13	05/15/13	LONGS DRUG STC	
CV	cardiovas	amLODIPine-benazepril 10 mg-40 mg CAP	AmLODIPine	1 cap	PO	qd	06/10/14			TAKE 1 CAPSULE DAILY		Lum, Mervin	RF KADOOKA, CR	90	3	03/28/13	12/26/13	LONGS DRUG STC	
CV	Unknown	aspirin 81 mg DRT	Ecotrin Adult Lo	81 mg	PO	qd	06/10/14			TAKE 1 TABLET BY MOUTH DAILY		Pagonia, Natalie	KADOOKA, CR	30	7	04/09/13	10/02/13	LONGS DRUG STC	
CV	metabolic	atorvastatin 80 mg TAB	Lipitor	80 mg	PO	qd	06/10/14			TAKE 1 TABLET DAILY		Teruya, Trentor	KADOOKA, CR	30	3	12/26/13	02/24/14	LONGS DRUG STC	
CV	antineopla	CiSPlatin 1 mg/ml SOLN	Platinol-AQ	Unknown	IV	qd	Unknown					Pagonia, Natalie							
CV	coagulat	clopidogrel 75 mg TAB	Plavix	75 mg	PO	qd	06/10/14			TAKE 1 TABLET DAILY		Pagonia, Natalie	KADOOKA, CR	90	8	04/03/13	12/26/13	LONGS DRUG STC	
CV	gastroint	docusate sodium 100 mg CAP	Stool Softener	100 mg	PO	prn	Unknown			TAKE 1 CAPSULE TWICE DAILY AS NEEDED		Pagonia, Natalie	KADOOKA, CR	30	1	08/06/13	08/06/13	LONGS DRUG STC	
CV	respirator	fluticasone 250 mcg PwD	Flovent Diskus	250 mcg	INH	prn	Unknown			INHALE 2 PUFFS BY MOUTH TWICE A DAY		Lum, Mervin	RF ONO, BENJAM	15	4	10/16/13	02/15/14	LONGS DRUG STC	
CV	Unknown	freestyle 28g lancets		Unknown	FS	after meals	Unknown			USE TO TEST 4 TIMES A DAY		Pagonia, Natalie	KADOOKA, CR	25	9	04/12/13	03/13/14	LONGS DRUG STC	
CV	Unknown	freestyle lite test strip		Unknown	FS	after meals	Unknown			USE TO TEST 4 TIMES A DAY		Pagonia, Natalie	KADOOKA, CR	25	8	04/12/13	02/19/14	LONGS DRUG STC	
CV	central ne	ibuprofen 600 mg TAB	Motrin	600 mg	PO	prn	Unknown			TAKE 1 TABLET BY MOUTH EVERY 6 TO 12 HO		Pagonia, Natalie	FUJIMOTO, P	3	1	09/12/13	09/12/13	LONGS DRUG STC	
CV	immunolo	influenza virus vaccine, inactivated SUSP	Fluzone High-D	Unknown	IM	prn	Unknown			TO BE ADMINISTERED BY PHARMACIST FOR IM		Pagonia, Natalie	LIU, MARK	1	1	10/01/13	10/01/13	LONGS DRUG STC	
CV	cardiovas	isosorbide mononitrate 30 mg ERT	Imdur	30 mg	PO	hs	Unknown			TAKE 1 TABLET BY MOUTH AT BEDTIME		Pagonia, Natalie	KRIEGER, ELIZ	30	1	10/28/13	10/28/13	LONGS DRUG STC	
CV	cardiovas	lisinopril 40 mg TAB	Prinivil	10 mg	PO	qd				TAKE 1 TABLET EVERY DAY		HCS	KRIEGER, ELIZ	30	1	10/28/13	10/28/13	LONGS DRUG STC	
CV	nutritional	magnesium lactate 84 mg ERT	Mag-Tab SR	1 tab	PO	bid	Unknown			TAKE 1 TABLET BY MOUTH TWICE A DAY		Pagonia, Natalie	KRIEGER, ELIZ	30	1	10/29/13	10/29/13	LONGS DRUG STC	
CV	metabolic	metFORMIN 500 mg ERT	Fortamet	1,000 mg	PO	qd	06/10/14			TAKE 2 TABLETS BY MOUTH TWICE A DAY		Teruya, Trentor	KADOOKA, CR	30	6	06/08/13	03/03/14	LONGS DRUG STC	
CV	gastroint	pantoprazole 40 mg DRT	Protonix	40 mg	PO	qd	06/10/14			TAKE 1 TABLET BY MOUTH DAILY		Pagonia, Natalie	KADOOKA, CR	30	7	04/03/13	09/27/13	LONGS DRUG STC	
CV	metabolic	pravastatin 80 mg TAB	Pravachol	80 mg	PO	qd	06/10/14			TAKE 1 TABLET BY MOUTH AT BEDTIME		Pagonia, Natalie	KADOOKA, CR	90	2	03/28/13	06/28/13	LONGS DRUG STC	
CV	hormones	predniSONE 2.5 mg TAB	Deltasone	2.5 mg	PO	qad	Unknown			TAKE 1 TABLET BY MOUTH EVERY OTHER DAY		Pagonia, Natalie	ONO, BENJAM	30	1	01/22/14	01/22/14	LONGS DRUG STC	
CV	Unknown	St. John's wort TAB	St. John's Wort	1 ea	PO	qd	04/12/14					Pagonia, Natalie							
CV	coagulat	warfarin 1 mg TAB	Jantoven	1 mg	PO	qad	Unknown					Pagonia, Natalie							
IM	anti-infect	amoxicillin-500-mg-CAP	Amoxil							TAKE ONE CAPSULE BY MOUTH 3 TIMES A DAY		Pagonia, Natalie	FUJIMOTO, P	7	1	08/12/13	08/12/13	LONGS DRUG STC	
IM	anti-infect	amoxicillin-500-mg-CAP	Amoxil	500 mg	PQ	bid				TAKE ONE CAPSULE BY MOUTH 3 TIMES A DAY		Shimabuku, Shi	SAGAWA, KATH	7	1	10/08/13	10/08/13	LONGS DRUG STC	
IM	anti-infect	ciprofloxacin-500-mg-TAB	Cipro	250 mg	PQ	qd				TAKE 1 TABLET BY MOUTH TWICE A DAY FOR		Pagonia, Natalie	ANDERSON, B	7	1	11/16/13	11/16/13	LONGS DRUG STC	
IM	Unknown	ovc-aspirin-ec-81-mg-tablet								TAKE 1 TABLET BY MOUTH DAILY		Pagonia, Natalie	KADOOKA, CR	30	3	11/02/13	03/03/14	LONGS DRUG STC	
IM	cardiovas	dipoxin-250-mg-TAB	Lanoxin	250 mg	PQ	qd	Unknown					Lum, Mervin	RF						
IM	Unknown	freestyle lite test strip								USE TO TEST 3 TIMES A DAY OR MORE IF INST		Pagonia, Natalie	KADOOKA, CR	25	1	03/21/13	03/21/13	LONGS DRUG STC	
IM	cardiovas	metoprolol-50-mg-TAB	Lopressor	50 mg	PQ	qd	Unknown			TAKE 1 TABLET BY MOUTH TWICE A DAY		Pagonia, Natalie	KADOOKA, CR	30	40	04/06/13	02/08/14	LONGS DRUG STC	
IM	alternativ	omega-3-polyunsaturated-fatty-acids-CAP	Fish Oil	1 ea	PQ	qd	06/11/14					Pagonia, Natalie							
IM	hormones	predniSONE-10-mg-TAB	Sterapred-DS							TAKE 1 TABLET BY MOUTH WITH 5MG BY MOUTH		Pagonia, Natalie	ONO, BENJAM	60	1	06/21/13	06/21/13	LONGS DRUG STC	
IM	hormones	predniSONE-10-mg-TAB	Sterapred-DS							TAKE 1 TABLET BY MOUTH EVERY OTHER DAY		Pagonia, Natalie	ONO, BENJAM	30	2	10/16/13	02/18/14	LONGS DRUG STC	
IM	hormones	predniSONE-10-mg-TAB	Sterapred-DS							TAKE ONE TABLET EVERY OTHER DAY		Uyemoto, Patric	ONO, BENJAM	30	1	08/05/13	08/05/13	LONGS DRUG STC	
IM	hormones	predniSONE-10-mg-TAB	Sterapred-DS							TAKE 1 TABLET ORALLY EVERY OTHER DAY		Uyemoto, Patric	ONO, BENJAM	30	1	12/20/13	12/20/13	LONGS DRUG STC	
IM	hormones	predniSONE-5-mg-TAB	Deltasone							TAKE 1 TABLET BY MOUTH EVERY OTHER DAY		Pagonia, Natalie	ONO, BENJAM	30	1	01/22/14	01/22/14	LONGS DRUG STC	
IM	hormones	predniSONE-5-mg-TAB	Deltasone							TAKE 1 TABLET BY MOUTH WITH 10MG EVERY		Pagonia, Natalie	ONO, BENJAM	60	1	05/22/13	05/22/13	LONGS DRUG STC	
IM	gastroint	ranitidine-150-mg-TAB	Zantac 150	150 mg	PO	bid	Unknown			TAKE 1 TABLET TWICE A DAY		Lum, Mervin	RF KADOOKA, CR	30	1	10/28/13	02/21/14	LONGS DRUG STC	

Items **500** Items All WQs **0** Longest Time: **0**

On Demand Query View Home Med List Vital Signs Add Weight Refresh

HCS MED 360 VIA HHIE

Interaction checker

Type	Medication	Severity	Rec. Action	Override Reason
Allergy	mupirocin topical ordered with mupirocin topical allergy			Overridden
Interaction	chlorpheniramine and topiramate	Major Drug Interaction	Monitor Closely	Accepted
Interaction	meclizine and topiramate	Major Drug Interaction	Monitor Closely	Reviewed
Interaction	clopidogrel and rivaroxaban	Major Drug Interaction	Monitor Closely	Reviewed
Interaction	albuterol and carvedilol	Major Drug Interaction	Generally Avoid	Reviewed
Interaction	carvedilol and levalbuterol	Major Drug Interaction	Generally Avoid	Reviewed

Details

GENERALLY AVOID: Beta-blockers may antagonize the effects of beta-2 adrenergic bronchodilators and precipitate acute, life-threatening bronchospasm in patients with asthma or other obstructive airway diseases. The mechanism involves increased airway resistance and reduced bronchodilation due to blockade of beta-2 adrenergic receptors. The interaction may also occur with ophthalmically applied beta-blockers, which are systemically absorbed and can produce clinically significant systemic effects even at low or undetectable plasma levels. Due to opposing effects on beta-2 adrenergic receptors, propranolol has been used in the treatment of salbutamol overdose. **MANAGEMENT:** The use of beta-2 adrenergic bronchodilators in combination with beta-blockers, including ophthalmic formulations, should generally be avoided. If concomitant use is required, a cardioselective beta-blocker (e.g., acebutolol, atenolol, betaxolol, bisoprolol, metoprolol, nebivolol) is usually preferred. Nevertheless, caution is advised and respiratory status should be closely monitored, as cardioselectivity is not absolute and larger doses of beta-1 selective agents may pose some of the same risks as nonselective agents. In general, nonselective beta-blockers are considered contraindicated in patients with obstructive airways disease.



HCS MED 360 VIA HHIE

Longitudinal charting of clinical info screen shot: to correlate with med use

Systolic Blood Pressure

Date	Time	Value
3/17/14	8:39	150 mmHg
3/20/14	8:40	175 mmHg
3/24/14	8:40	210 mmHg

Diastolic Blood Pressure

Date	Time	Value
3/17/14	8:39	80 mmHg

Legend:
 ● Max of VisitObservationGroup.Value1
 ● Max of VisitObservationGroup.Value2

Text box: Alternatively, select "Reports" tab and observations to create/print all summary charts with values listed.

Date Range: Current Shift Next Shift Today Yesterday

Report Format: All (for visit) With Graph

Buttons: View, Print, Export

Page Info: Current Page No.: 1, Total Page No.: 4, Zoom Factor: Page Width

Pagoria, Natalie
 Pagoria, Natalie
 Pagoria, Natalie
 Pagoria, Natalie

HCS MED 360 VIA HHIE

Printable Completed Med List: shows confirmed meds, who confirmed, etc.

Demo Medical Center

Patient Name: **New, Enrollee**
 Date of Birth: **03/09/1940** Gender: F
 MRN: DEMO00187990 Account Number: DEMO00187990
 Unit: Demo Admit Date: 3/20/14 22:56
 Height: 0 cm Weight: 210 kg

Patient HOME Meds

Attending MD: WILLIS, SAM

Allergies: penicillin (anaphylaxis), shellfish (rash), sulfa drug (rash)

Confirmed by Paqoria, Natalie

Current Home Medications (Including OTC Herbs - Sorted by Class) ^{***Pharmacy does not dispense herbal supplements**}

Medication - Brand Name	Dose	Prescriber	Last Fill
ANTINEOPLASTICS			
CiSPlatin 1 mg/ml SOLN - Platinol-AQ	Unknown		
ANTINEOPLASTICS			
CARDIOVASCULAR AGENTS			
amLODIPine-benazepril 10 mg-40 mg CAP - AmLODIPine Besylate-Benazepril	1 cap	KADOOKA, CRAIG	12/26/13 12:00 am
CARDIOVASCULAR AGENTS TAKE 1 CAPSULE DAILY.			
isosorbide mononitrate 30 mg ERT - Imdur	30 mg	KRIEGER, ELIZABETH	10/28/13 12:00 am
CARDIOVASCULAR AGENTS TAKE 1 TABLET BY MOUTH AT BEDTIME			
lisinopril 40 mg TAB - Prinivil	10 mg	KRIEGER, ELIZABETH	10/28/13 12:00 am
CARDIOVASCULAR AGENTS TAKE 1 TABLET EVERY DAY			
CENTRAL NERVOUS SYSTEM AGENTS			
acetaminophen-aspirin-caffeine 250 mg-250 mg-65 mg TAB - Excedrin	Unknown		
CENTRAL NERVOUS SYSTEM AGENTS			
ibuprofen 600 mg TAB - Motrin	600 mg	FUJIMOTO, PATSY	9/12/13 12:00 am
CENTRAL NERVOUS SYSTEM AGENTS TAKE 1 TABLET BY MOUTH EVERY 6 TO 12 HOURS AS NEEDED FOR PAIN			
COAGULATION MODIFIERS			
clopidogrel 75 mg TAB - Plavix	75 mg	KADOOKA, CRAIG	12/26/13 12:00 am
COAGULATION MODIFIERS TAKE 1 TABLET DAILY.			
warfarin 1 mg TAB - Jantoven	1 mg		
COAGULATION MODIFIERS			



Demo, Tres
Attending MD:

DEMO00129608

Demo Island Pharmaco

clopidogrel

Pronunciation: kloe PID oh grel

Brands: Plavix

What is the most important information I should know about clopidogrel?

Your doctor will perform blood tests to make sure you do not have certain genetic conditions that would prevent you from safely using clopidogrel.



- You should not use this medicine if you have any active bleeding such as a stomach ulcer or bleeding in the brain (such as from a head injury).

Some medicines can interact with clopidogrel and should not be used at the same time. Your doctor may need to change your treatment plan if you also take other medicines, especially certain stomach acid reducers (esomeprazole, omeprazole, Nexium, Prilosec).

What is clopidogrel?

Clopidogrel keeps the platelets in your blood from coagulating (clotting) to prevent unwanted blood clots that can occur with certain heart or blood vessel conditions.

Clopidogrel is used to prevent blood clots after a recent heart attack or stroke, and in people with certain disorders of the heart or blood vessels.

Clopidogrel may also be used for purposes not listed in this medication guide.

What should I discuss with my healthcare provider before taking clopidogrel?



- You should not use this medicine if you are allergic to clopidogrel, or if you have any active bleeding such as a stomach ulcer or bleeding in the brain (such as from a head injury).

Some medicines can interact with clopidogrel and should not be used at the same time. Your doctor may need to change your treatment plan if you also take other medicines, especially certain stomach acid reducers (esomeprazole, omeprazole, Nexium, Prilosec).

To make sure clopidogrel is safe for you, tell your doctor if you have:

- a bleeding or blood clotting disorder, such as TTP (thrombotic thrombocytopenic purpura) or hemophilia;
- a history of stroke, including TIA ("mini-stroke");
- a stomach ulcer or ulcerative colitis;
- kidney disease; or
- if you are allergic to medicines like clopidogrel, such as prasugrel, ticagrelor, or tidopidine.

FDA pregnancy category B. This medication is not expected to be harmful to an unborn baby. Tell your doctor if you are pregnant or plan to become pregnant during treatment.



- It is not known whether clopidogrel passes into breast milk or if it could harm a nursing baby. You should not breast-feed while using this medicine.

How should I take clopidogrel?

Follow all directions on your prescription label. Do not take this medicine in larger or smaller amounts or for longer than recommended.

Clopidogrel can be taken with or without food.



- Because clopidogrel keeps your blood from clotting, it can also make it easier for you to bleed, even from a minor injury. Contact your doctor or seek emergency medical attention if you have bleeding that will not stop.

If you need surgery or dental work, tell the surgeon or dentist ahead of time that you are using clopidogrel. You may need to stop using the medicine for at least 5 days before having surgery, to prevent excessive bleeding. Follow your doctor's instructions and start taking clopidogrel again as soon as possible.



- You should not stop using this medicine suddenly. Use clopidogrel regularly even if you feel fine or have no symptoms. Get your prescription refilled before you run out of medicine completely.



- Store at room temperature away from moisture and heat.



HHIE PATIENT REGISTRY

Enroll Patient in Pharm-2-Pharm

Additional Demographics

* Address * City * State HI Ethnicity Select Ethnicity...

* Home Phone Work Phone Mobile Phone

Alternate Contact Name Alternate Contact Phone Region Kona

Allergies

Associated Providers

Select Provider...

Actions	Name	Specialty
<input type="button" value="Remove"/>	Paul Brown, MD	Cardiology

- Simplified workflow walks pharmacists through the patient management process
- Attempts to reduce pharmacist workflow redundancy to improve efficiency.



HHIE PATIENT REGISTRY

Health eNet View [dropdown] [user icon]

Adam Adamson Jr

[Undo Hand-Off](#)
[Assign To Pharmacist](#)
[Re-Admit Patient](#)
[Exit Patient](#)

Program Status: Handed Off
Is Active: Yes
Hospital Pharmacist: Colonel Mustard
Enroll Date: 07-21-2014
Discharge Date: 07-21-2014
Handoff Date: 07-21-2014
Community Pharmacy: Kona Community Hospital

Hospital MRN: 234243
Gender: Male
Date of Birth: 05-29-1945
Ethnicity: American White/Caucasian
Address: 100 Honolulu, HI
Zip Code: 96814
Home Phone: 808-555-1209
Region: Hilo

▼ Associated Providers

Name	Specialty	Office	Fax	Address
Bill Nye, MD	Science	N/A	N/A	N/A

▼ Patient Activity History

Event	Date	By	Created
✓ Enrolled	07-21-2014	Colonel Mustard	07-22-2014 00:02
★ Discharged from hospital	07-21-2014	Colonel Mustard	07-22-2014 00:02
⦿ Handed Off to Kona Community Hospital	07-21-2014	Colonel Mustard	07-22-2014 00:02

- Maintains patient demographics, program status, provider associations and more
- Records patient program activity for reporting and potential analytics



HHIE PATIENT REGISTRY

Health eNet

Pharm2Pharm Patients for Colonel Mustard - Hilo

+ New Patient... Search Patients... Patients Per Page 10 Previous 1 2 3 Next

View Patient Filters | Patient States Shown: **Enrolled** **Handed Off** **Assigned** | Handoff Date Range: All Dates

State	Name ↑	Age Gender	Hospital Pharmacist	Discharge Date	Handoff Date	Community Pharmacy	Community Pharmacist
Enrolled	Doe, Jane	0F	N/A	N/A	N/A	N/A	N/A
Handed Off	Freecs, Gon	24M	Colonel Mustard	06-19-2014	06-20-2014	Responsible Drug Company	N/A
Handed Off	Ghij, Abcde	26F	N/A	N/A	N/A	Hilo Medical Center	N/A
Handed Off	Grangers, Hermione	34F	N/A	N/A	N/A	Mariners Drugs-n-Things	N/A
Enrolled	JacobJingleHeimerSchmidt, John	68M	N/A	N/A	N/A	N/A	N/A
Assigned	Jane, Mary	0M	N/A	N/A	N/A	Angels Dose-n-Go	Albert Pujols
Enrolled	Janet, Abraham	0F	Colonel Mustard	N/A	N/A	N/A	N/A
Handed Off	Kraker, Polly	0F	N/A	N/A	N/A	Mariners Drugs-n-Things	N/A
Enrolled	Leopold, Gennaro	0M	Colonel Mustard	06-26-2014	N/A	N/A	N/A
Enrolled	Martin, Zip	39M	John Silver	N/A	N/A	N/A	N/A

- Pharmacists are provided a personalized list view of patients of interest
- Pharmacists can filter, sort and search for patients based on multiple criteria

HHIE COMMUNITY HEALTH RECORD

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WONG, [REDACTED] B • MRN: [REDACTED] (CMC) • [REDACTED] FEMALE

Pt Info FaceSheet Reports Encounters Tests Documents

Admit: 03/30/2014 16:37 HST Disch:

Attending: [REDACTED] MD Care Team: View All
 Admit Diag: LEFT HIP FRACTURE, HYPERTENSIVE; MALIGNANCY, ANEMIA, LEUKOCYTOSIS Problems: View All

Access to Clinical Reports

Real-time Laboratory Results

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WONG, [REDACTED] B • MRN: [REDACTED] (CMC) • [REDACTED] FEMALE

Pt Info FaceSheet Reports Encounters Tests Documents

BMP Status: Auth (Verified) Priority: Stat Perf: Specimen Source: Blood
 Collected: 03/30/2014 14:00 HST Result Rpt/Status Chng: 03/30/2014 14:18 HST

TEST	RESULT	OUT OF RANGE	REFERENCE	UNITS
Sodium Level	137		136-145	mmol/L
Potassium Level	4.5		3.5-5.1	mmol/L
Chloride Level	102		98-107	mmol/L
CO2/Carbon Dioxide	27		21-32	mmol/L
Anion Gap	12		4-16	mmol/L
Glucose, Random	118	High	70-108	mg/dL
Result Comments: Reference ranges are based on a fasting specimen.				
BUN	33	High	7-20	mg/dL
Creatinine	1.4	High	0.6-1.1	mg/dL
BUN/Creat Ratio	23.6			

HHIE DIRECT SECURE MESSAGING

michael.fuoyama@hawaiihiie.medicity.net · Contacts Settings · Logout

New Message | **Check Mail** | **Mark As Read** | **Move To Folder** | **Delete**

Arranged by: Date, Descending | search

Inbox
Sent Items
Drafts
Trash (8)

Important Patient Information
natalie.pagoria@hawaiihiie.medicity.net to ... (07:00 PM) Show details

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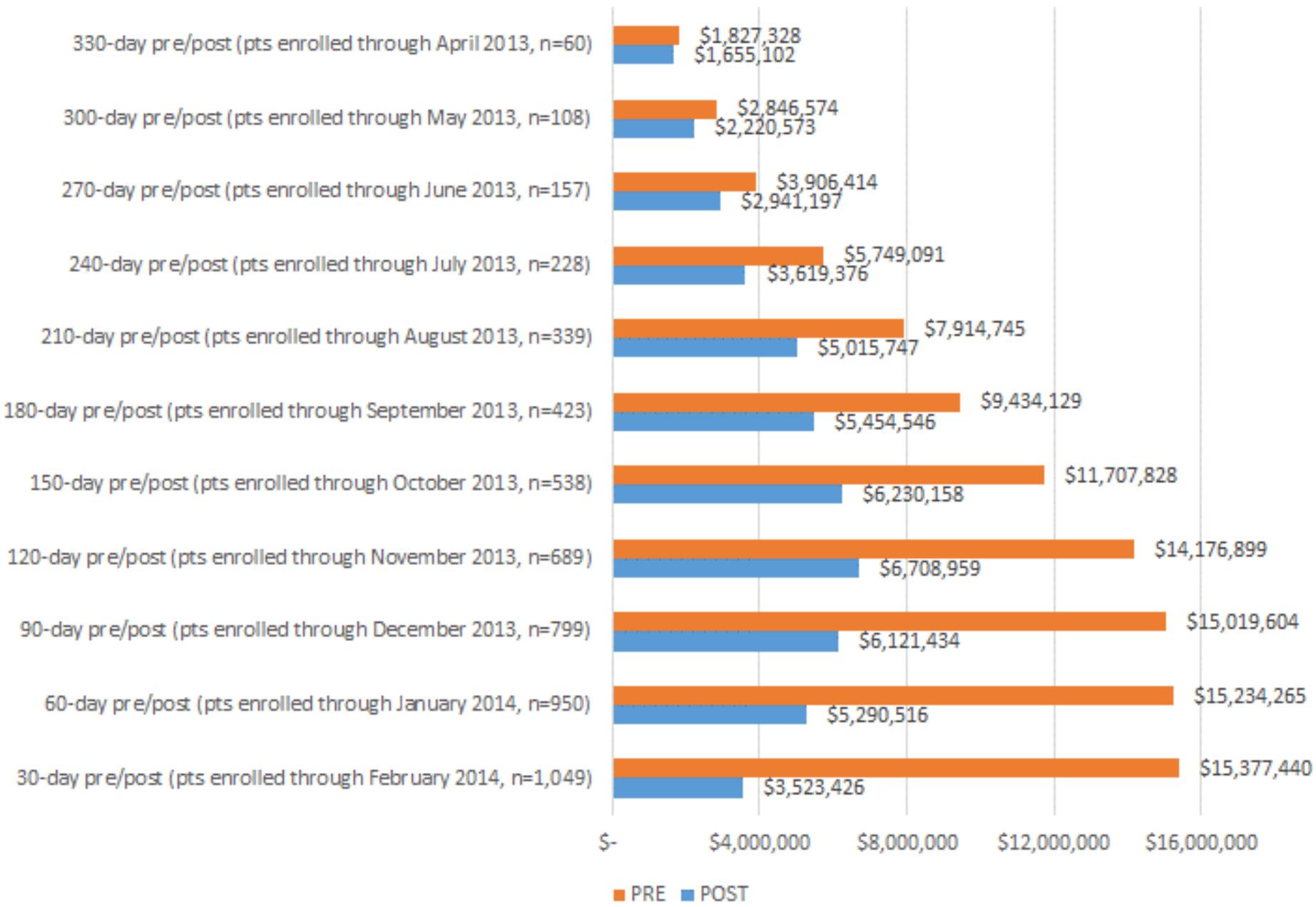
SUMMARY: HIT USE VIA HHIE FOR PHARM2PHARM PATIENTS

HIT	CURRENT	POTENTIAL
Secure messaging	Pharmacist to pharmacist	Pharmacist to <u>physician</u>
HCS med rec, med list	Pharmacist: access/update at enrollment, readmission, each visit	<u>Nurse/physician</u> : access/update at ER, admission, office visit
Patient registry	Pharmacist: enrollment list, active patient list	<u>Physician</u> : high risk patient list
LAN translation	Pharmacist: across the continuum	<u>Physician</u> : office/follow-up visits
Community health record	PLANNED: Pharmacist access to support medication monitoring	<u>Nurse/physician</u> : access info updated by pharmacist

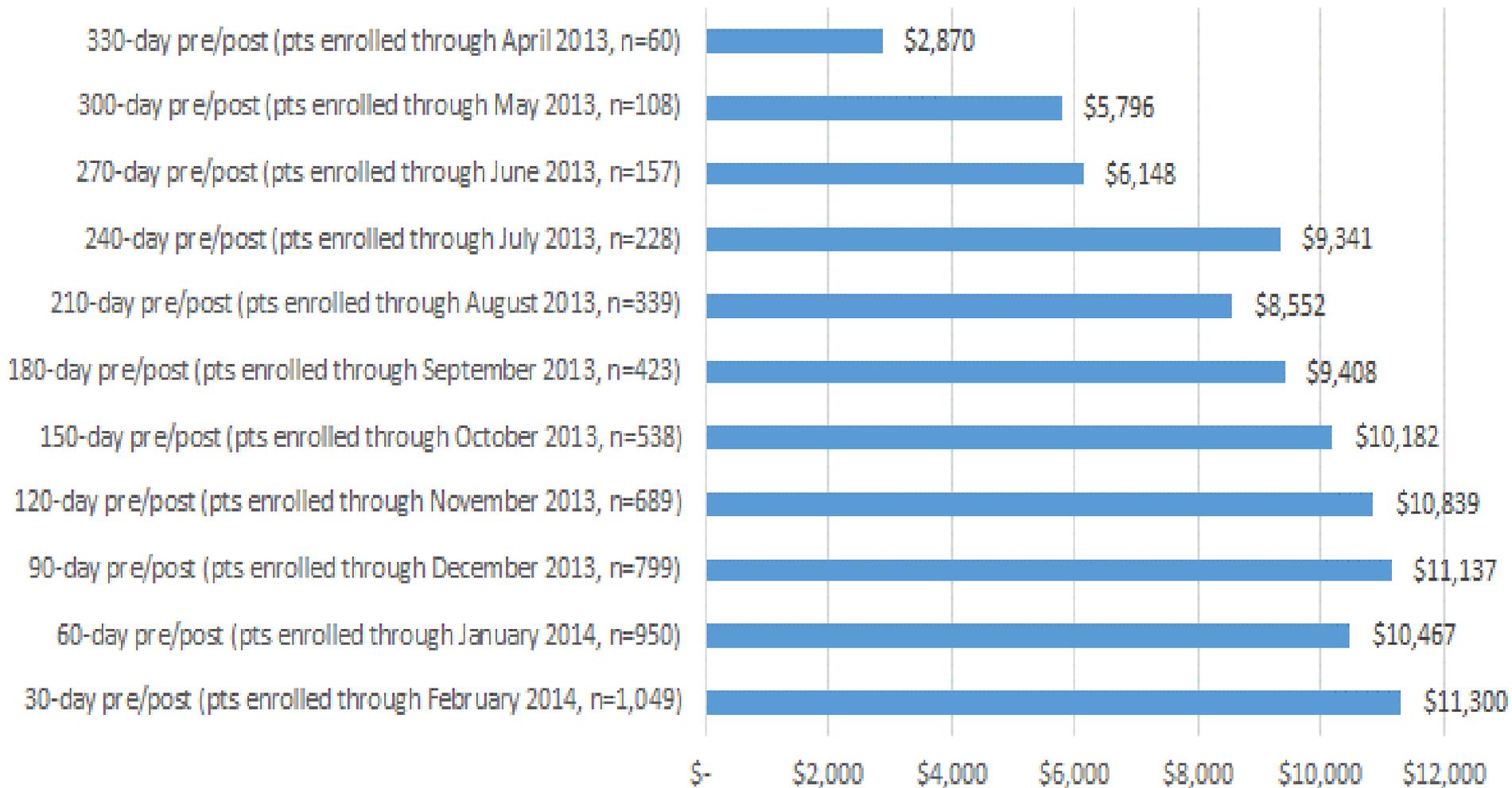


Total patients enrolled and handed off through March 2014	1,157
Average per patient acute care utilization 365 days prior to their Pharm2Pharm enrollment/hand-off	3.1
Total cost of acute care for these patients 365 days prior to their Pharm2Pharm enrollment/hand-off	\$30.6M
Average per patient acute care cost 365 days prior to their Pharm2Pharm enrollment/hand-off	\$26,441
% of patients by race/ethnicity	<ul style="list-style-type: none"> 38% White/Caucasian 26% Hawaiian 14% Filipino 13% Japanese 3% Other Pacific Islander 2% Hispanic/Latino 0.7% Black 0.7% Chinese 0.4% American Indian 2% Other/unknown
% of patients by age	<ul style="list-style-type: none"> 5% 18-44 11% 45-54 20% 55-64 32% 65-74 23% 75-84 10% 85+

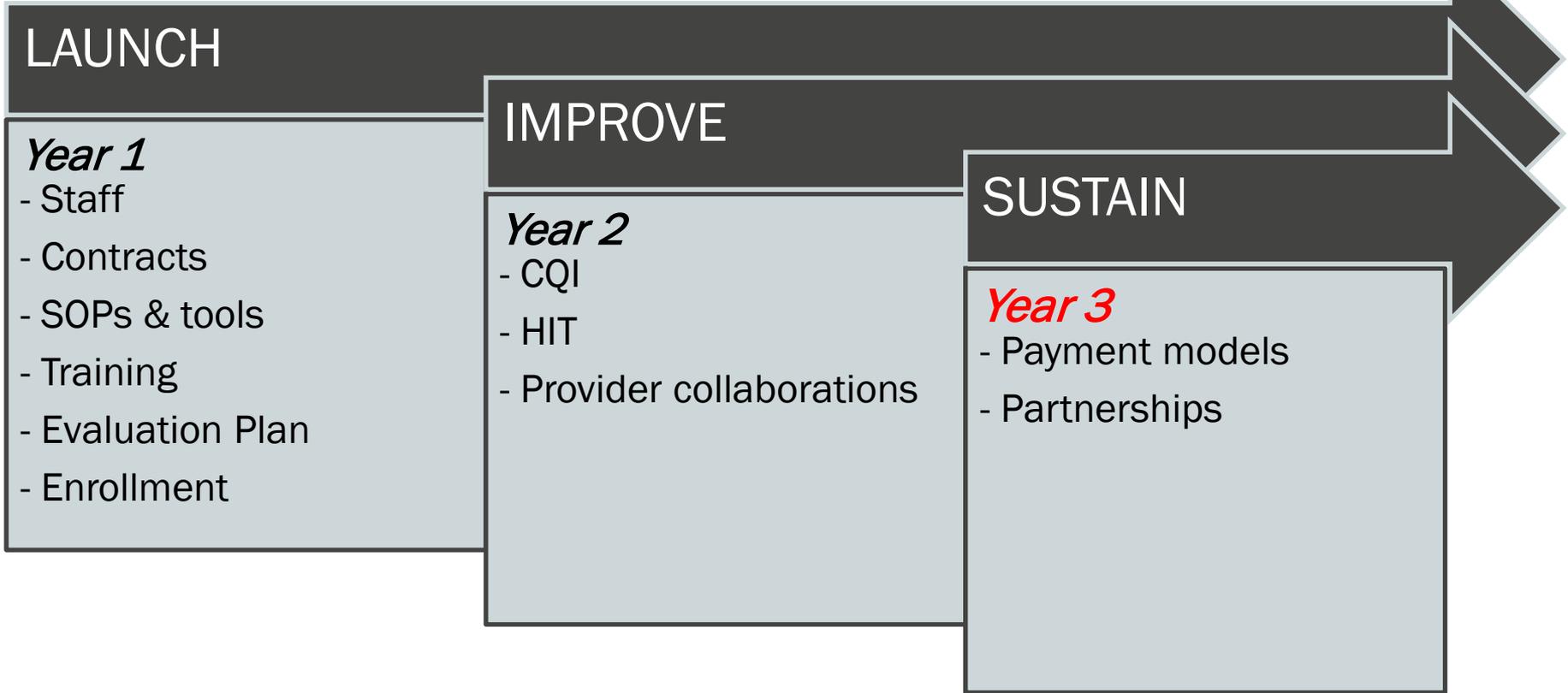
TOTAL acute care costs pre/post Pharm2Pharm enrollment/handoff



PER PATIENT acute care cost decrease pre/post Pharm2Pharm enrollment/handoff



THREE-YEAR FOCUS



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