TELEHEALTHCARE

Disease Management in the Home

Presenter:

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Why Telehealthcare?

Improve access to care, particularly within a rural service region

Adopt evidence-based care management strategies

Effective management of disease in advance of deteriorated status

Design of hybrid community-based models of care:

•Effectively manage care of individuals diagnosed with chronic disease

•Acknowledge increasingly limited resources

Necessarily demonstrate savings to the health care delivery system

Controls: Assess At Point of Referral

INTAKE/ PRE-SCREEN

Patient is “flagged” on referral document as a potential candidate for admitting RN/ PT to assess (screen) patient for telehealth, or at point of referral

If patient referred to AHC has a primary or secondary diagnosis of HF, COPD or Uncontrolled DM *AND* history of frequent emergent visits or rehospitalization, the telehealthcare screen is initiated; and, “standing orders” for telehealth (individualized to patient need) are initiated.

□Assess for Telehealthcare Program
□Assess Heart Failure/ Telehealth Disease Management Program
□Assess Uncontrolled Diabetes/ Telehealth Disease Management Program
□Assess COPD/ Telehealth Disease Management Pathway
□Assess Falls Risk Program (PharmD consult)
□Assess for Palliative Care Program
□Enclose Disease Management Education guide

Requires Physician Order; Prescribed Visit Pattern (individualized to patient); and, Parameters Vital Data

Stratification of Risk
A Re-hospitalization Screen

AHC Data Reflects:

- **Patient Lives Alone** **Y N**
- **Fall score > 10 +/or Home Safety Concerns** **Y N**
- **Hospitalizations 2 or >/ 3 months** **Y N**
- **Incontinence, UTI, foley catheter** **Y N**
- **History significant Non-Compliance** **Y N**
- **Active Treatment 3 or > Health Conditions** **Y N**
- **CHF,oncology, pulmonary/ COPD** **Y N**
- **> 10 Medications +/or Home O_2** **Y N**

- **1-2 at risk 3-5 moderate risk 6-8 high risk**

GOAL: Identify Patients at Risk for Rehospitalization at *Point of Referral*

Source: CMS Tally Report; Agency Risk Adjusted Outcome Reports

Evidence-Based Disease Management

- Pathways based upon clinical guidelines / best practices
- A prescribed set of clinical services (type and utilization)
- Secure linkage patients to providers → PIN access network
- Based upon physician prescribed parameters and / or standing orders individualized to patient:
  - Uncontrolled Diabetes Disease Management Pathway
  - Heart Failure Disease Management Pathway
  - Hypertension Management
  - COPD Disease Management Pathway
  - Wound Management with C-WOCN Consultation

Heart Failure (HF)
Clinical Services Supported by Technology

Disease Management Path supported by *Evidence*:
ACC and AHA Guidelines for Clinical Management

- Incorporates technology with 24/7 remote access
- A prescribed set of services & range of visit frequency
- Pre-determined parameters- vital physiologic data
- Oral and/ or Intravenous Lasix, PRN
- LifeLine PERS with Reminders- financed by HHA x 60 days
- All Professional Visits may be provided directly <u>*or*</u> remotely:
  - Professional Nursing
  - Respiratory Therapy
  - Physical Therapy
  - Clinical Dietician

Benchmarking: HF

Outcome: Hospitalization (risk adjusted)

Payment Type: All

Telehealth: Comparison

Date Range: 3/1/2008 – 9/12/2008

Diagnosis: CHF

Group By: Month

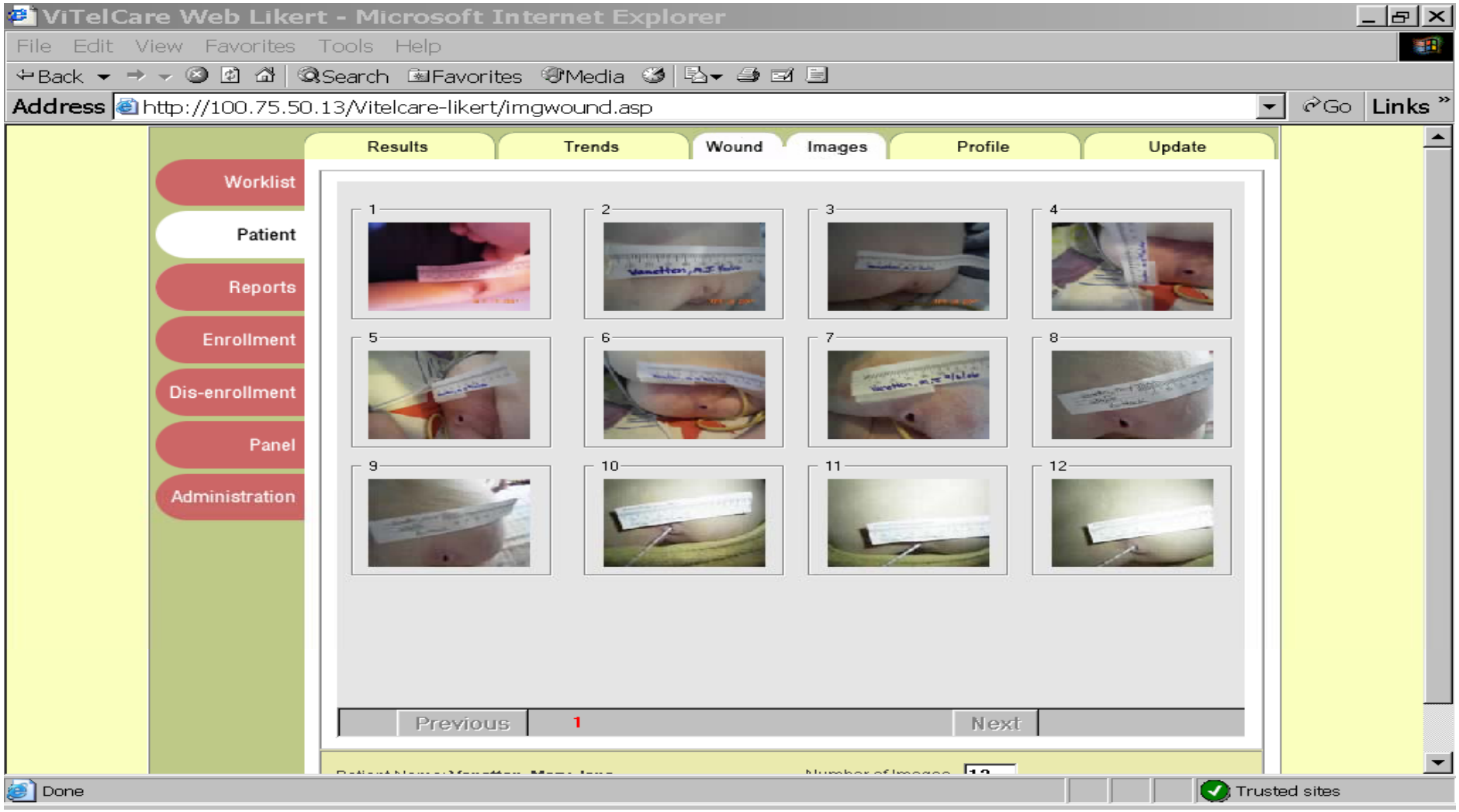
Results To: Screen

SHP ☑

submit

		Telehealth						Non-Telehealth					
	Date		Number of Events	Total Episodes	Your Rate	CMS Risk Adjusted Ref	SHP Benchmark		Number of Events	Total Episodes	Your Rate	CMS Risk Adjusted Ref	SHP Benchmark
1	Mar '08		0	0	0.0%	0.0%	0.0%		13	31	41.9%	37.2%	37.8%
2	Apr '08		0	1	0.0%	35.8%	32.0%		9	25	36.0%	39.5%	36.8%
3	May '08		0	2	0.0%	37.3%	32.0%		5	24	20.8%	41.2%	36.3%
4	Jun '08		2	5	40.0%	34.0%	33.2%		4	20	20.0%	41.8%	36.2%
5	Jul '08		0	2	0.0%	40.1%	27.7%		1	11	9.1%	44.1%	36.5%
6	Aug '08		0	5	0.0%	31.5%	19.5%		4	14	28.6%	44.2%	38.2%
7	Sep '08		0	0	0.0%	0.0%	0.0%		1	11	9.1%	41.7%	37.5%
	Totals:	**2**	**15**	**13.3%**	**34.5%**	**30.0%**		**37**	**136**	**27.2%**	**40.6%**	**37.0%**	

Wound Management
Anytime, From Anywhere



Interface Technologies; Benchmark Telehealth Data

Outcomes

Outcome: Hospitalization (risk adjusted)

Payment Type: All

Telehealth: all

Date Range: 9/1/2007 – 8/31/2008

Diagnosis: all

Group By: Month

Results To: Screen

SHP ☑

submit

	Date		Number of Events	Total Episodes	Your Rate	CMS Risk Adjusted Ref	SHP Benchmark
1	Sep ‘07		17	71	23.9%	26.9%	26.7%
2	Oct ‘07		37	139	26.6%	28.3%	26.2%
3	Nov ‘07		23	145	15.9%	27.2%	25.4%
4	Dec ‘07		22	123	17.9%	26.3%	26.5%
5	Jan ‘08		44	159	27.7%	27.3%	27.3%
6	Feb ‘08		30	160	18.8%	30.4%	26.2%
7	Mar ‘08		44	166	26.5%	30.8%	26.1%
8	Apr ‘08		31	126	24.6%	33.6%	25.2%
9	May ‘08		29	145	20.0%	32.4%	24.8%
10	Jun ‘08		28	132	21.2%	34.2%	25.8%
11	Jul ‘08		20	117	17.1%	35.8%	25.1%
12	Aug ‘08		22	129	17.1%	34.4%	26.0%
	Totals:	**347**	**1612**	**21.5%**	**30.7%**	**25.9%**	

Aggregated Agency Data
Home Care Assn.-QIO Partnership

Agency Operating Certificate # : 3824601
Report Range : 1/1/2008 - 6/30/2008
Average Daily Census : 375
Patients Utilizing Telehealth Care Services : 72 (% of Average Daily Census = 19.2)

Emergent Care Rate: 16
Acute Care Hospitalization Rate: 26

Table 1. Counties Served

Rural MSA Counties Served	Non-rural MSA Counties Served
Delaware Otsego	Herkimer

Table 2. Patient Care Status

Patient Care Status	Prior to THC Implementation		After THC Implementation		
	Unique Patients	% Total Patients	Unique Patients	Episodes	% Total Episodes
<Missing>	-	-	-	-	-
Lives alone	25	35%	28	28	39%
Lives with care provider	47	65%	44	44	61%
Unknown	-	-	-	-	-

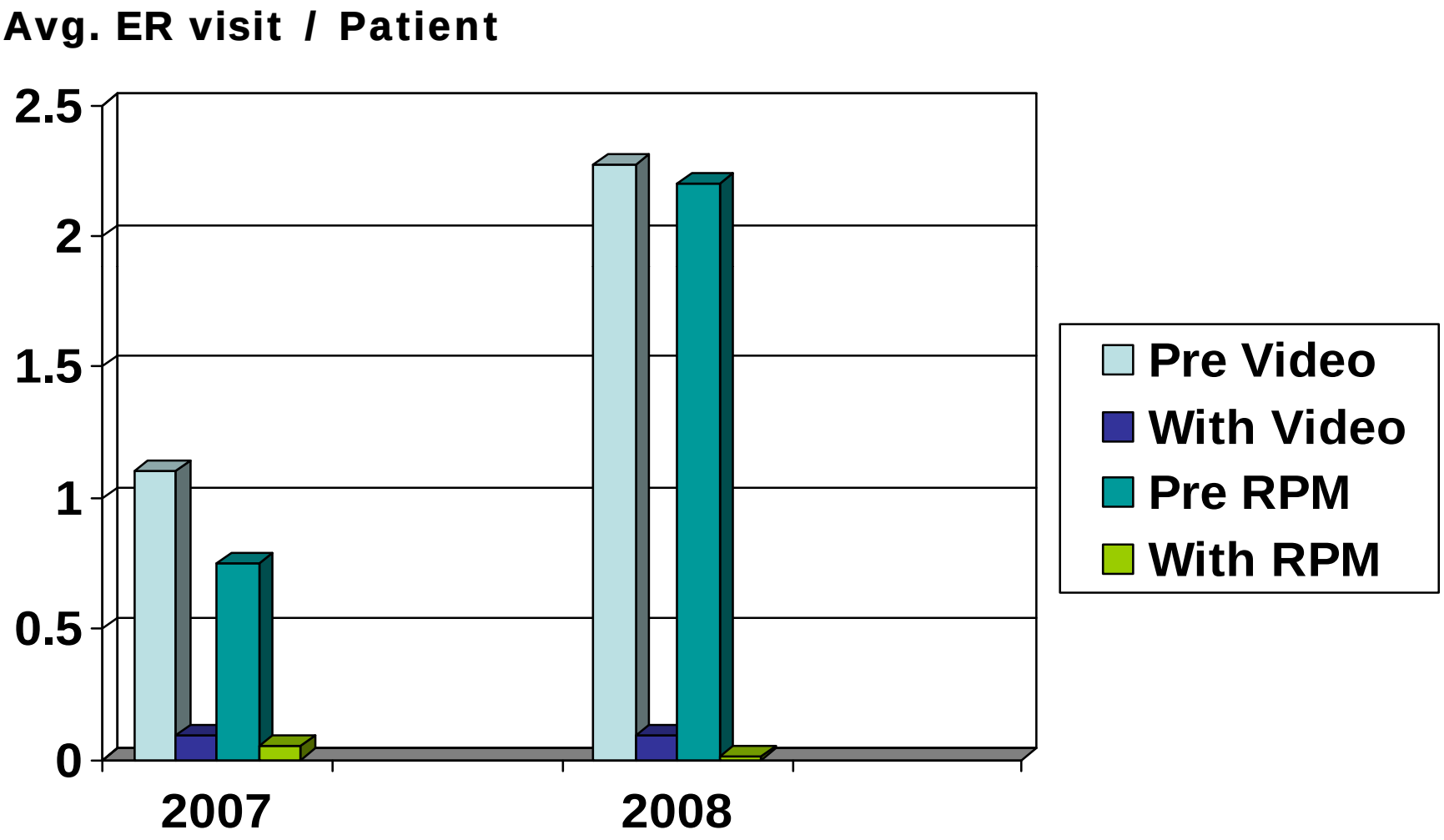
Table 3: Primary Reason for Emergent Care Visits

Primary Reason for Emergent Care	Prior to THC Implementation			In Between THC			During THC		
	Unique Patients	# Emergent Care Visits	% Total EC visits	Unique Patients	# Emergent Care Visits	% Total EC visits	Unique Patients	# Emergent Care Visits	% Total EC visits
- Respiratory problems (e.g. shortness of breath, respiratory infection, tracheobronchial obstruction)	2	2	100 %	-	-	-	-	-	-
Total	2	-	-	-	-	-	-	-	-

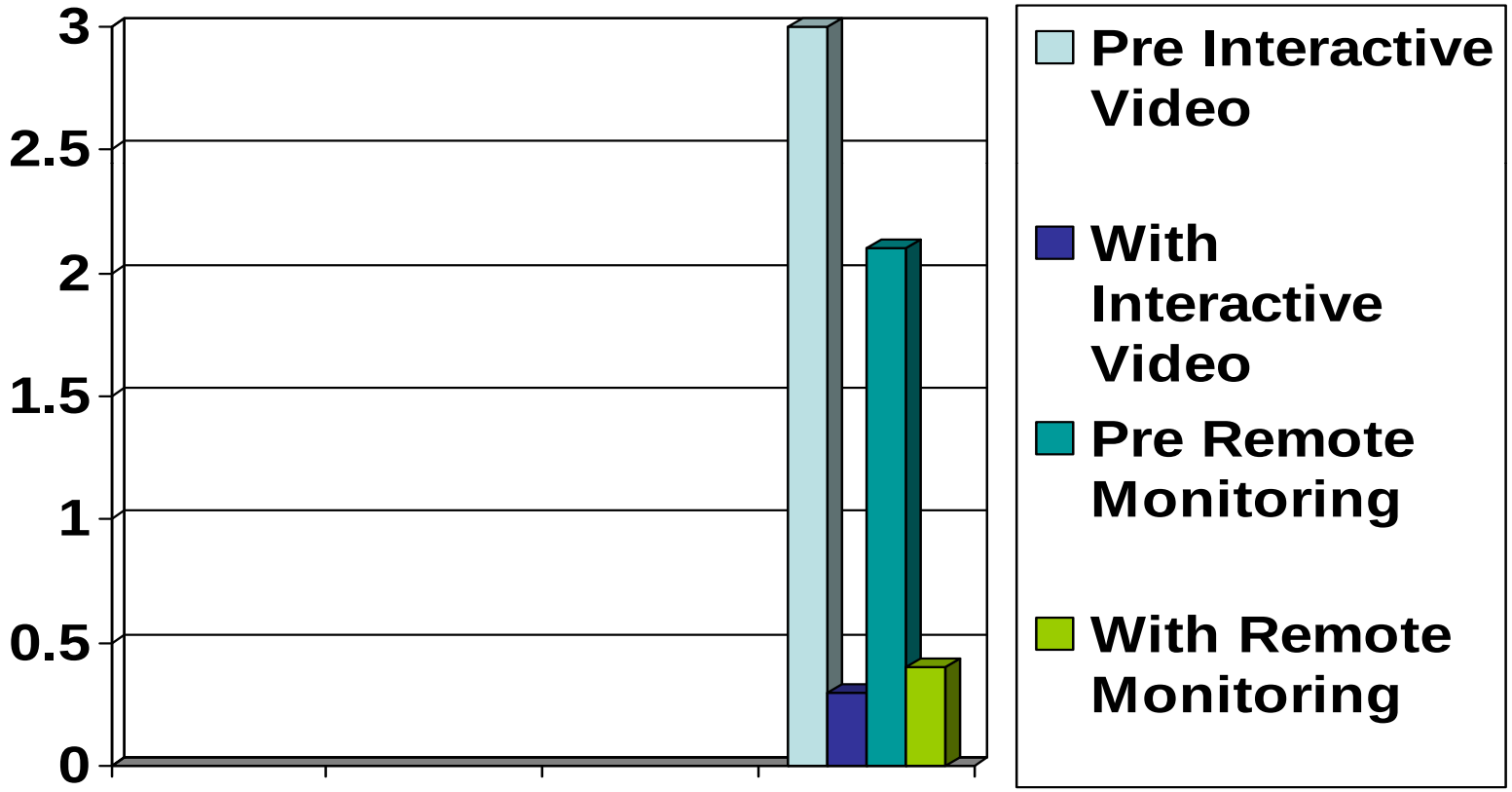
Table 4: Primary Reason for Hospitalization

Primary Reason for Hospitalization	Prior to THC Implementation				After THC Implementation			
	Unique Patients	# ACH	% Total ACH	Average LOS	Patients	# ACH	% Total ACH	Average LOS
- AFIB	3	3	3%	219162.0	-	-	-	-
- Altered Mental Status	1	1	1%	7.0	-	-	-	-
- Cancer	2	3	3%	7.7	-	-	-	-
- dehydration	1	1	1%	3.0	-	-	-	-
- Exacerbation of CHF, fluid overload, heart failure	21	31	30%	7.4	2	4	31%	3.5
- GI bleeding, obstruction	2	2	2%	24.0	1	1	8%	11.0
- HTN	2	2	2%	9.5	-	-	-	-
- Hypo/ hyperglycemia, diabetes out of control	2	3	3%	2.3	-	-	-	-
- Myocardial infarction, stroke	8	10	10%	7.7	-	-	-	-
- Respiratory problems (SOB, infection, obstruction)	28	38	37%	10.5	5	6	46%	4.7

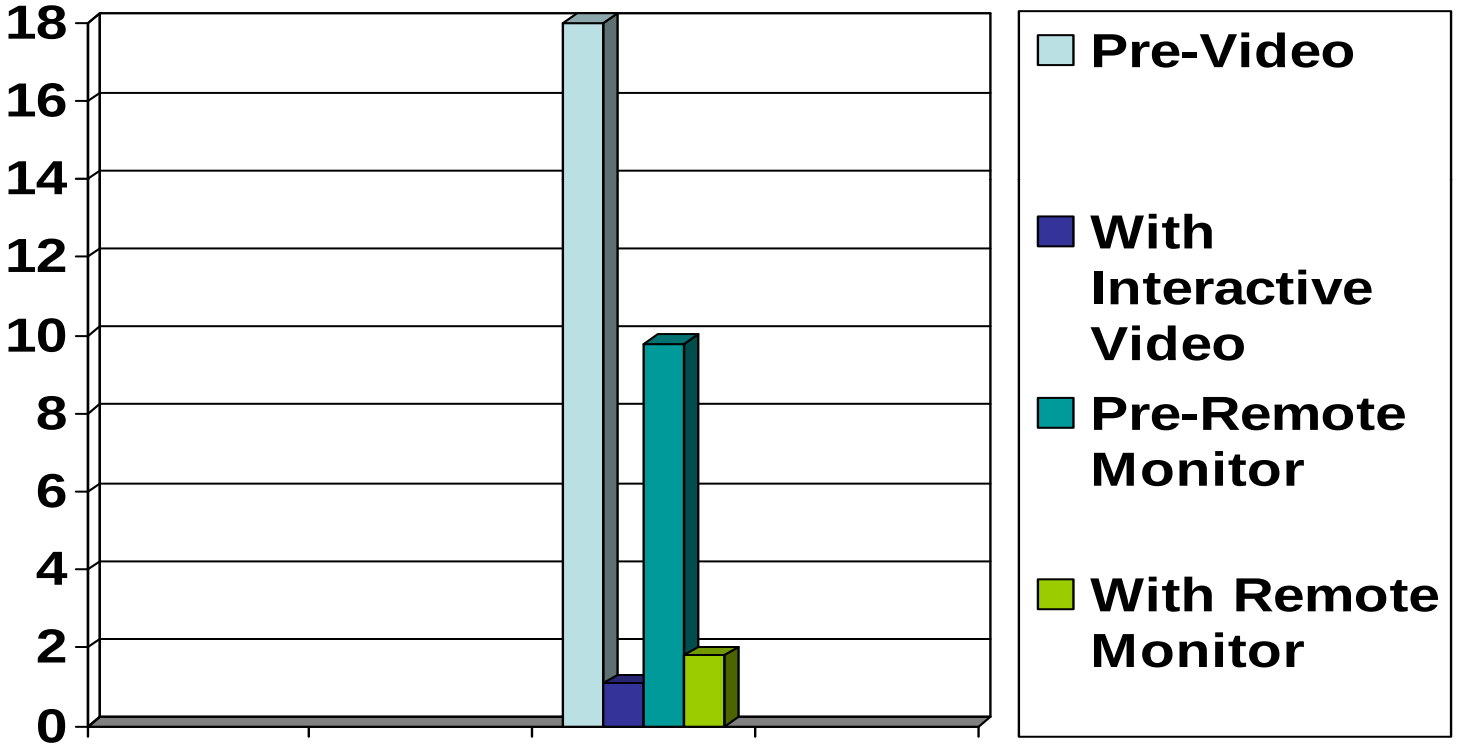
Reduction in Emergent Visits



Re-Hospitalization Impact



Length of Stay Impact



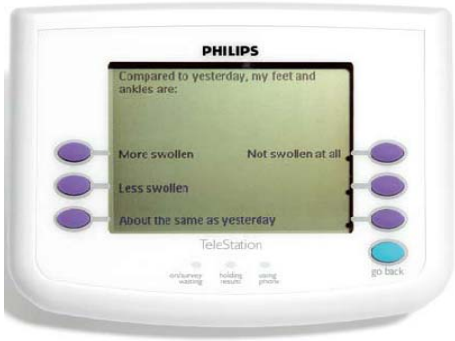
Entrepreneurial Approaches- Where to From Here?

- HealthCare Delivery System Partnerships
  - Tele-Dialysis
  - Continuum of Care Pathways- Access to Data

- Expansion Chronic Disease Management Strategies

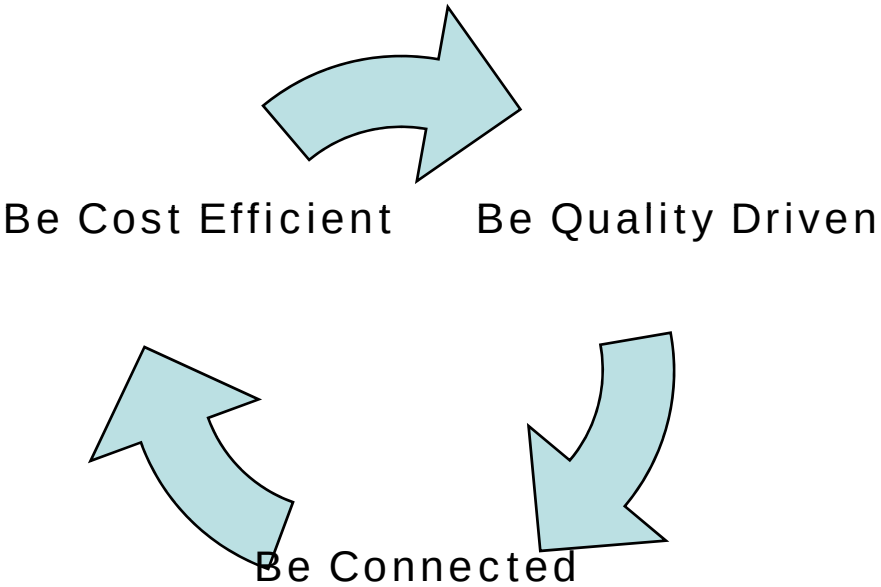
- Primary Health Applications:
  - School based initiatives
  - Occupational Health (Kiosk)

- Private Pay Expansion



Limited Only By The Imagination

Thank You!



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