Renal Disease Management
A view from the Valley

BC Nephrology Day 2005

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Acknowledgements

- FHA Renal Team
- RCC
- FHA Nephrologists
- PRA
- Baxter

Outline

- **Definition**
- **What Does it Mean for Management of Renal Disease**
- **FHA Initiative**
- Clinical Care
- Quality Indicators
- Data Driven Program

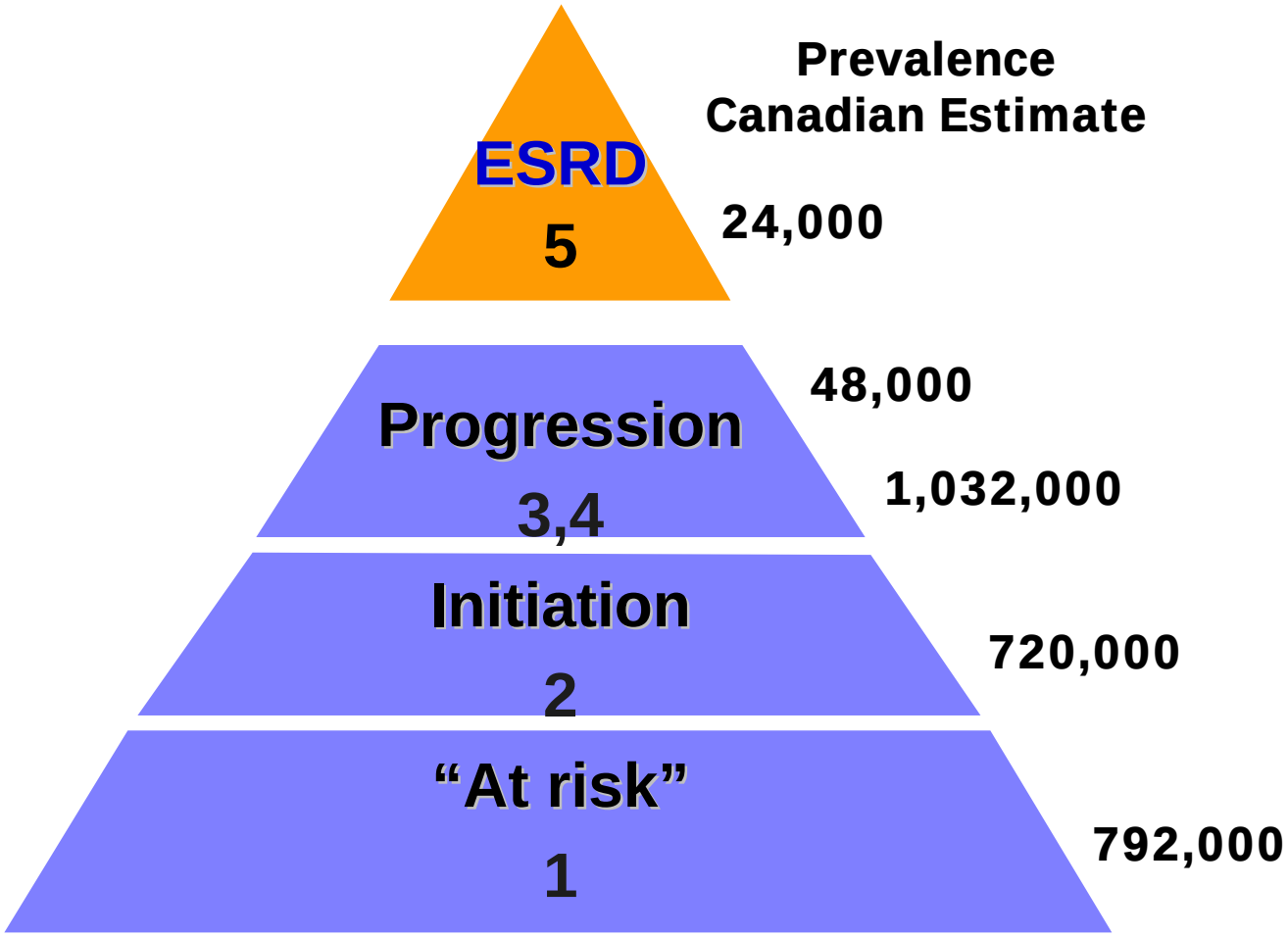
Definition
Disease Management

- **A system of coordinated healthcare interventions and communications for populations with conditions in which patient self-care efforts are significant . Disease management:**
  - **supports the physician or practitioner / patient relationship and plan of care,**
  - **emphasizes prevention of exacerbations and complications utilizing evidence-based practice guidelines and patient empowerment strategies, and**
  - **evaluates clinical, humanistic, and economic outcomes on an going basis with the goal of improving overall health.**

Care Model Checklist
Changes to Improve Care

- Self Management
- Decision Support
- Clinical Information System
- Delivery System Design
- Organisation of Health Care
- Community

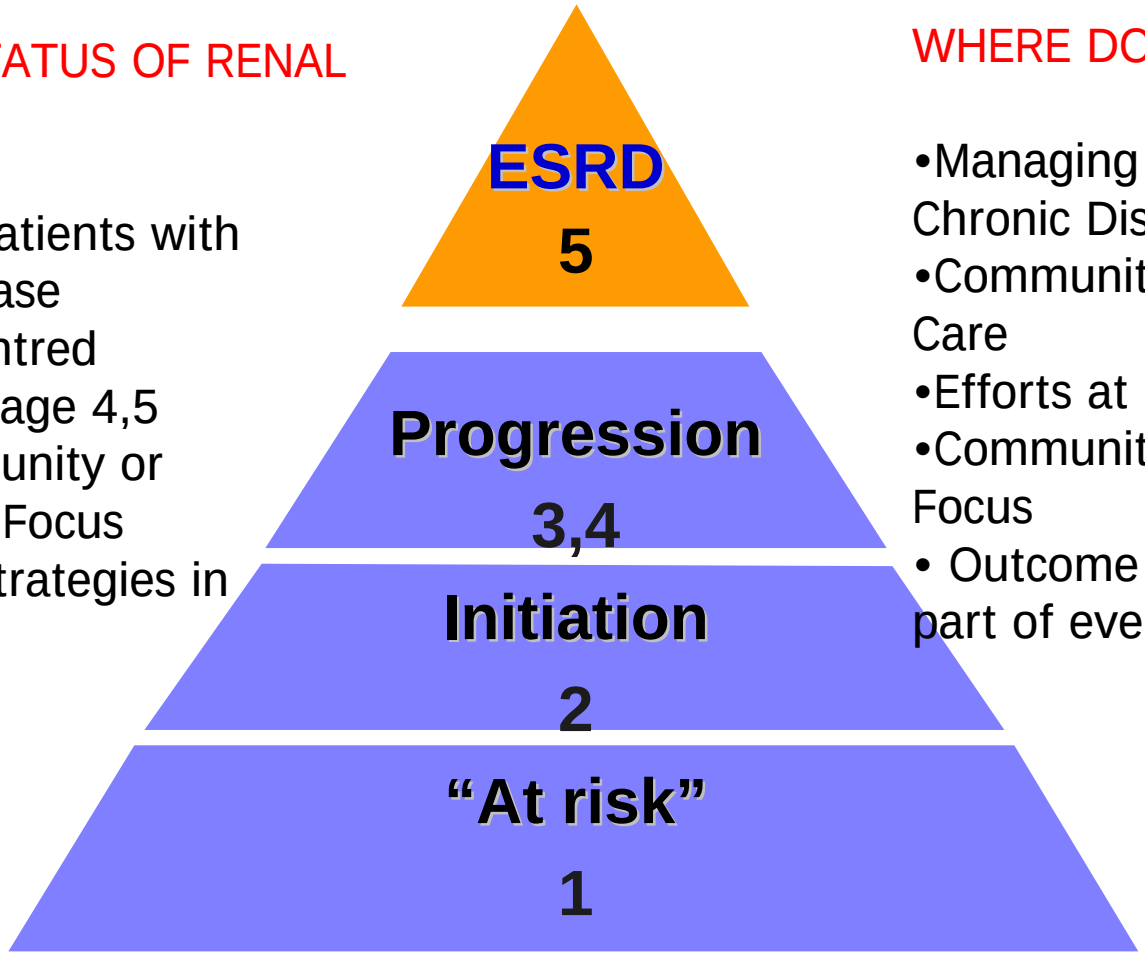
The Kidney Pyramid



Have we got it right ???

CURRENT STATUS OF RENAL CARE

- Managing Patients with Chronic Disease
- Hospital Centred
- Efforts at Stage 4,5
- Little Community or Preventative Focus
- Some DM Strategies in Place



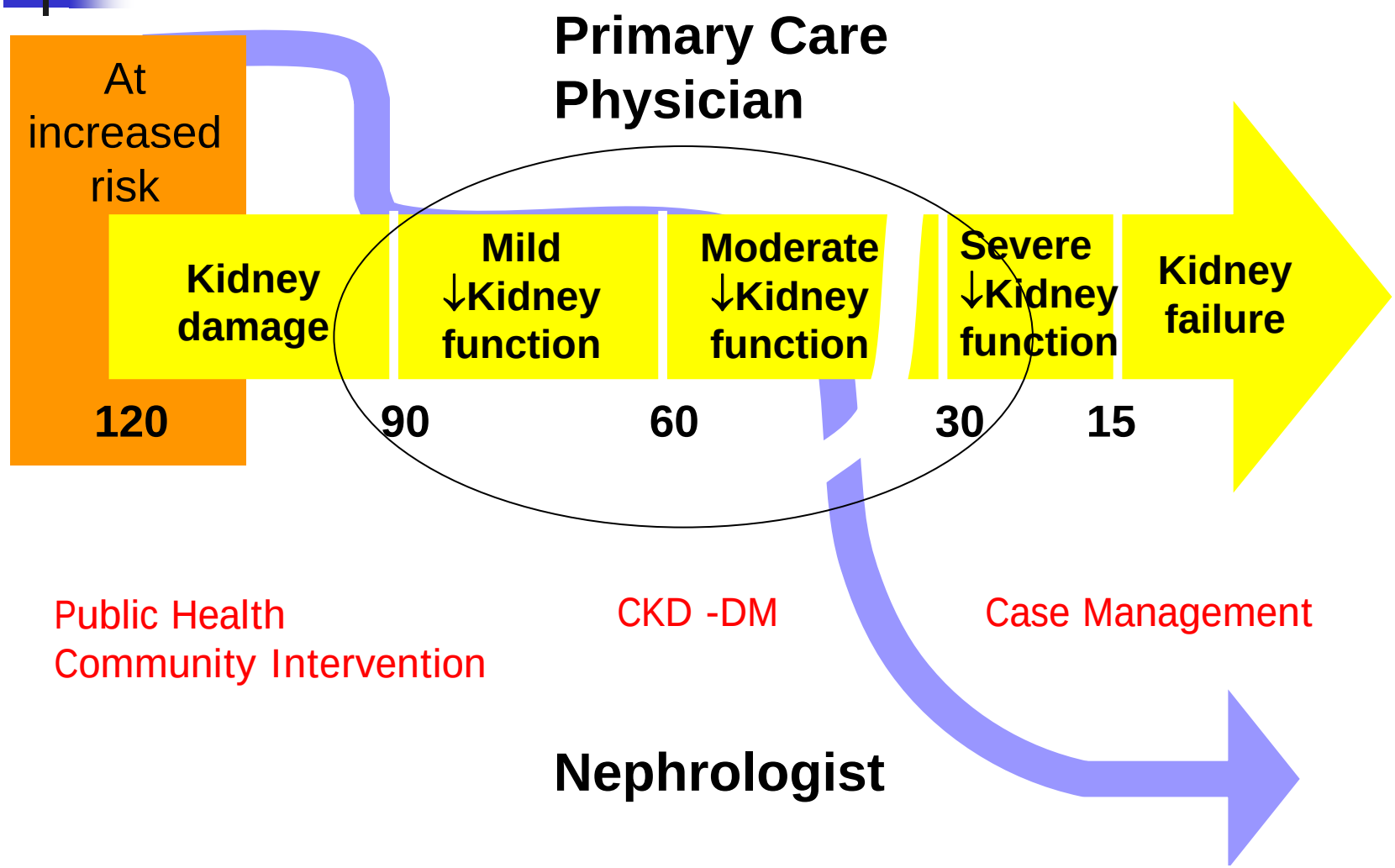
WHERE DO WE NEED TO GO

- Managing Populations with Chronic Disease
- Community/Out of Hospital Care
- Efforts at Stage 1,2,3
- Community or Preventative Focus
- Outcome Monitoring as a part of every program

Interventions in Chronic Kidney Disease

- **Wait until an acute event occurs then intervene**
- **Manage the disease to limit or arrest its progression**
- **Prevent the disease from developing**
- **Maintain the health of the population**

Co-Management of Patients with CKD



Partnership Alliance

- PHSA

  PRA (Provincial Renal Agency)
- FHA (Fraser Health Authority)
- Baxter Corporation

Renal Disease Management components to include:

1. Population identification processes.
2. Evidence-based practice guidelines.
3. Collaborative practice models to include physician and support service providers.
4. Patient self-management & education.
5. Process and outcome measurement, evaluation, and management.
6. Routine reporting of feedback loop. (Includes communication with patients, physicians, health authority).

(Ref: DMAA)

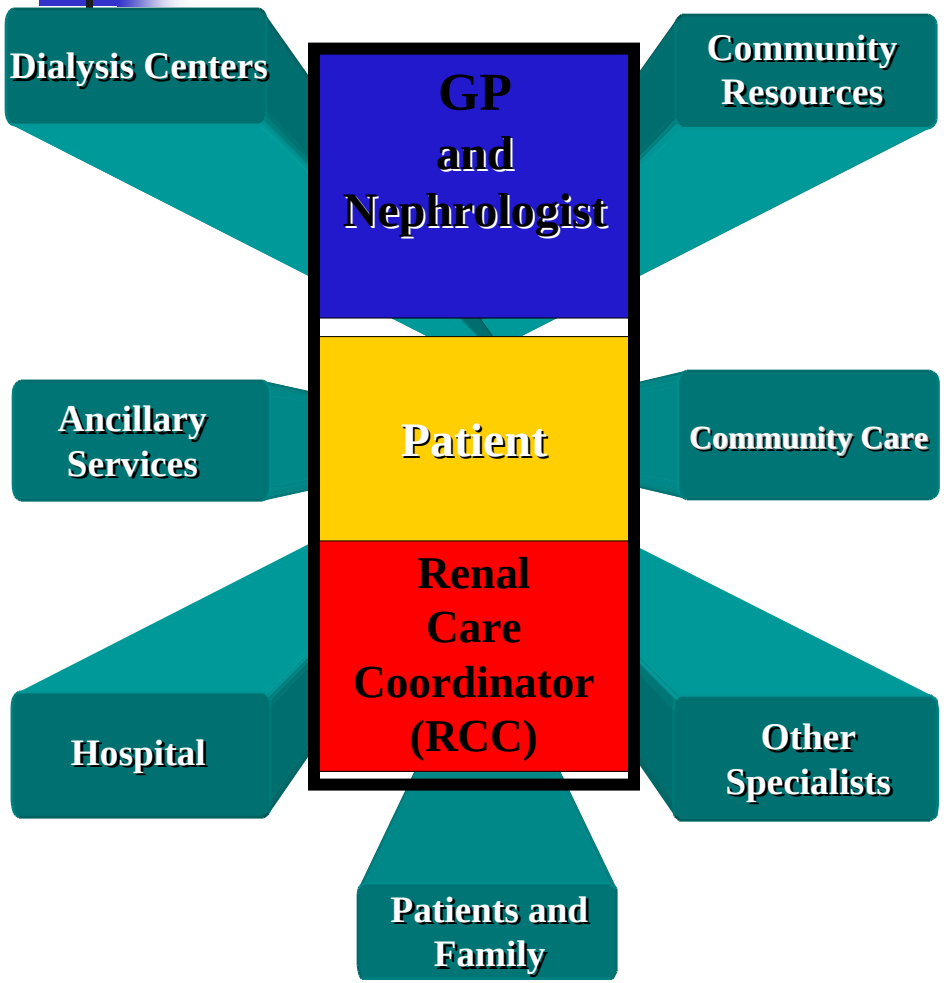
Goals of Renal DM Program

- Delay onset to dialysis with CKD patients by managing co-morbid conditions.
- Ensure adequate preparation for treatment choices.
- Promote home-based therapies.
- Provide seamless coordinated care throughout the renal continuum.
- Decrease hospital utilization.

Measurement Objectives

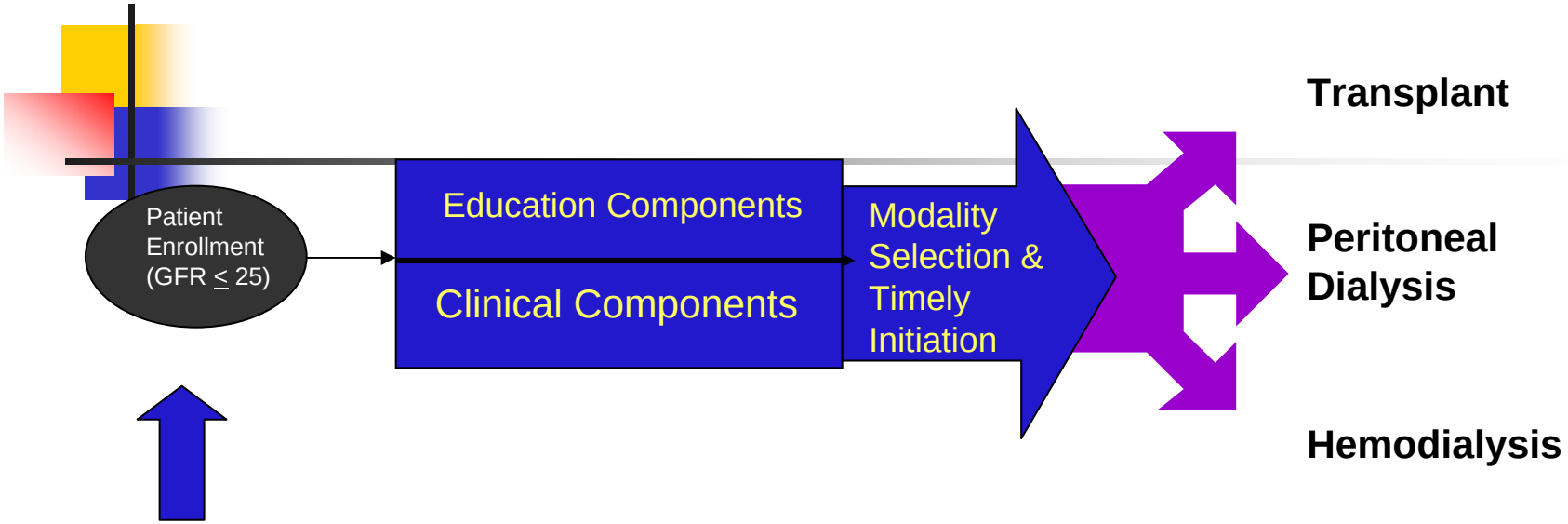
- Measure an improvement in quality patient care.
- Measure a decrease in hospital utilization.

Renal Care Coordinators



- **Experienced**
  - **Renal nurses selected from FHA expertise**
- **Field- Based**
  - **Co-morbid management**
  - **pro-active care**
  - **Rigorous data collection**
- **Ratio**
  - **80-100 patients per RCC**

CKD Program - Process



Identify & Enroll Patient

EPO

Blood Pressure Mgt.

Lab Values Directly

interventions

Timely Initiation of RRT

Education Timing, Quality & Content

Clinical Pathways (Anemia, CVD, Bone Disease, Nutrition)

Track Outcomes

Timely Initiation

Urgent / Planned Starts

Modality Selection

Access Types and Timing

Patient Satisfaction / QOL Measures

Select Clinical Measures

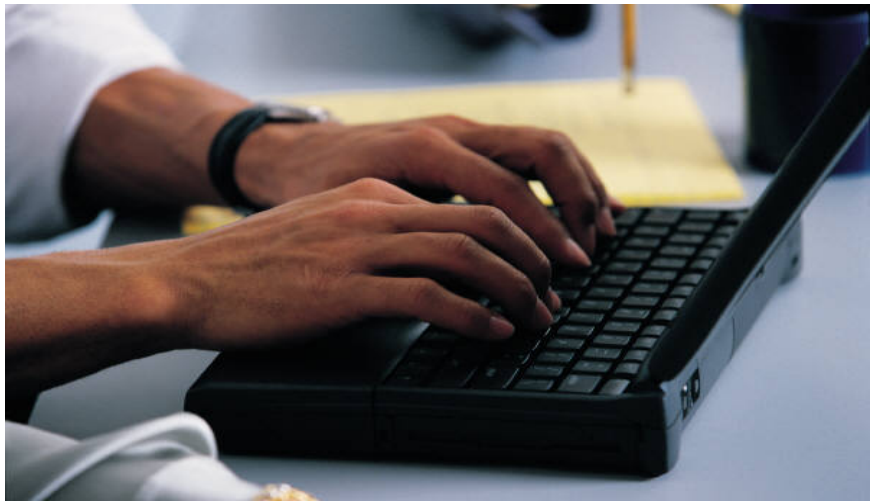
Service Intensity By Acuity

Risk Status	Verbal or Written Contact	Physical Contact	Home Medication Review	Documentation
High	Minimum of three times per week for patients with CHF, uncontrolled diabetes or other unstable state; every other week if stable	Monthly and during any known hospitalization	Monthly and following hospital discharge	Minimum of once per month and with each contact, intervention and hospitalization
Medium	Twice monthly or more often as needed with a focus on access management, psychosocial issues, medications and hospitalization issues	Every 2 – 3 months and during any known hospitalization	Every other month and following hospital discharge	Minimum of once per month and with each intervention and hospitalization
Low	Monthly or more often as needed with a focus on access management, psychosocial issues, medications and hospitalization issues	Every 3 months and during any known hospitalization	Every other month and following hospital discharge	Minimum of once per month and with each intervention and hospitalization

P.R.O.M.I.S.

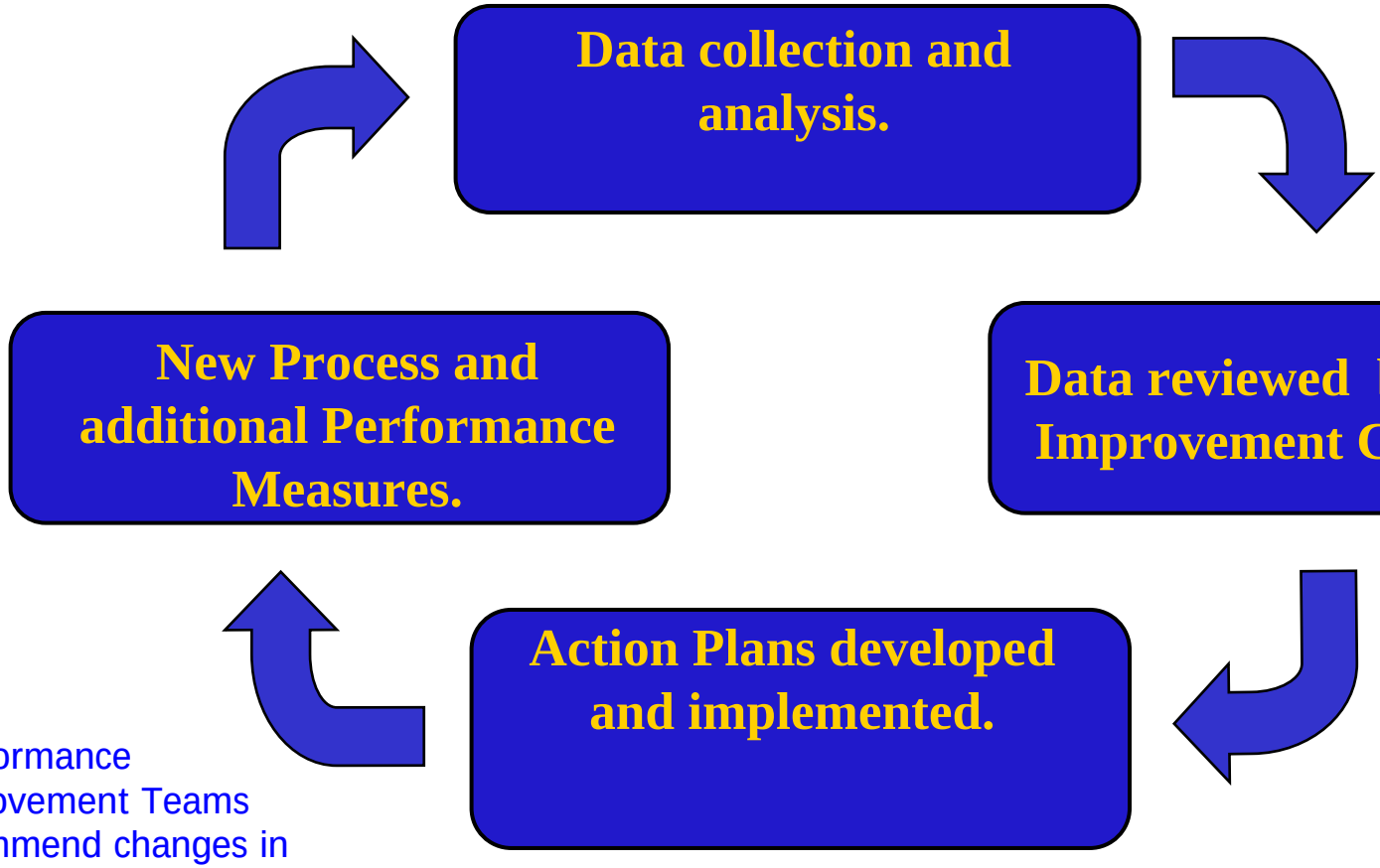
BC Renal Agency

An agency of the Provincial Health Services Authority



- ***Without measurement and comparison, there is no context for change."***

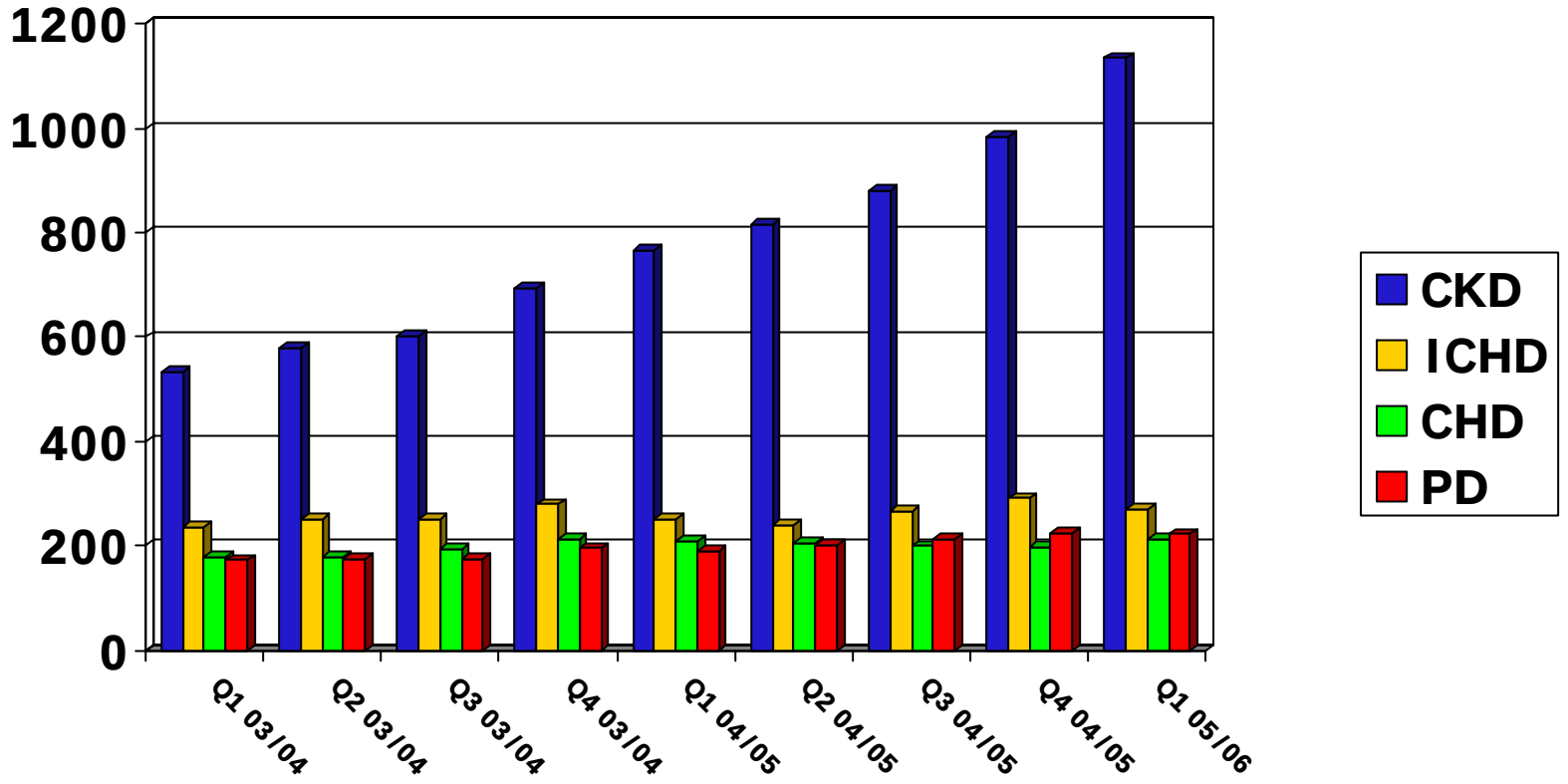
Delivery System Improvement Process



- Clinical indicators compared against KDOQI and PRA Guidelines.
- Targets set for Clinical Improvement

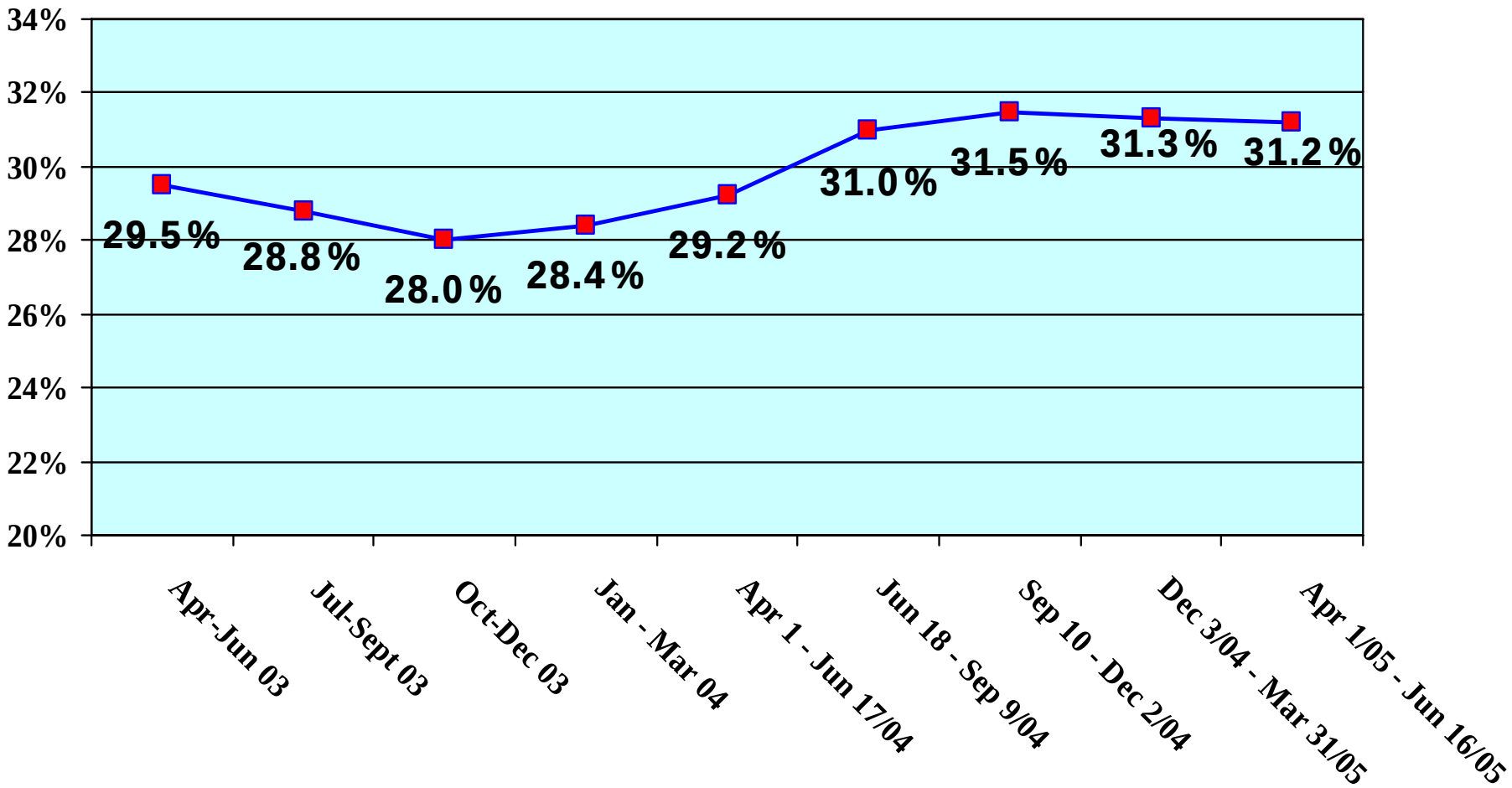
- Performance Improvement Teams recommend changes in Clinical practice based on Outcome Indicators.

Quarterly Program Data Review

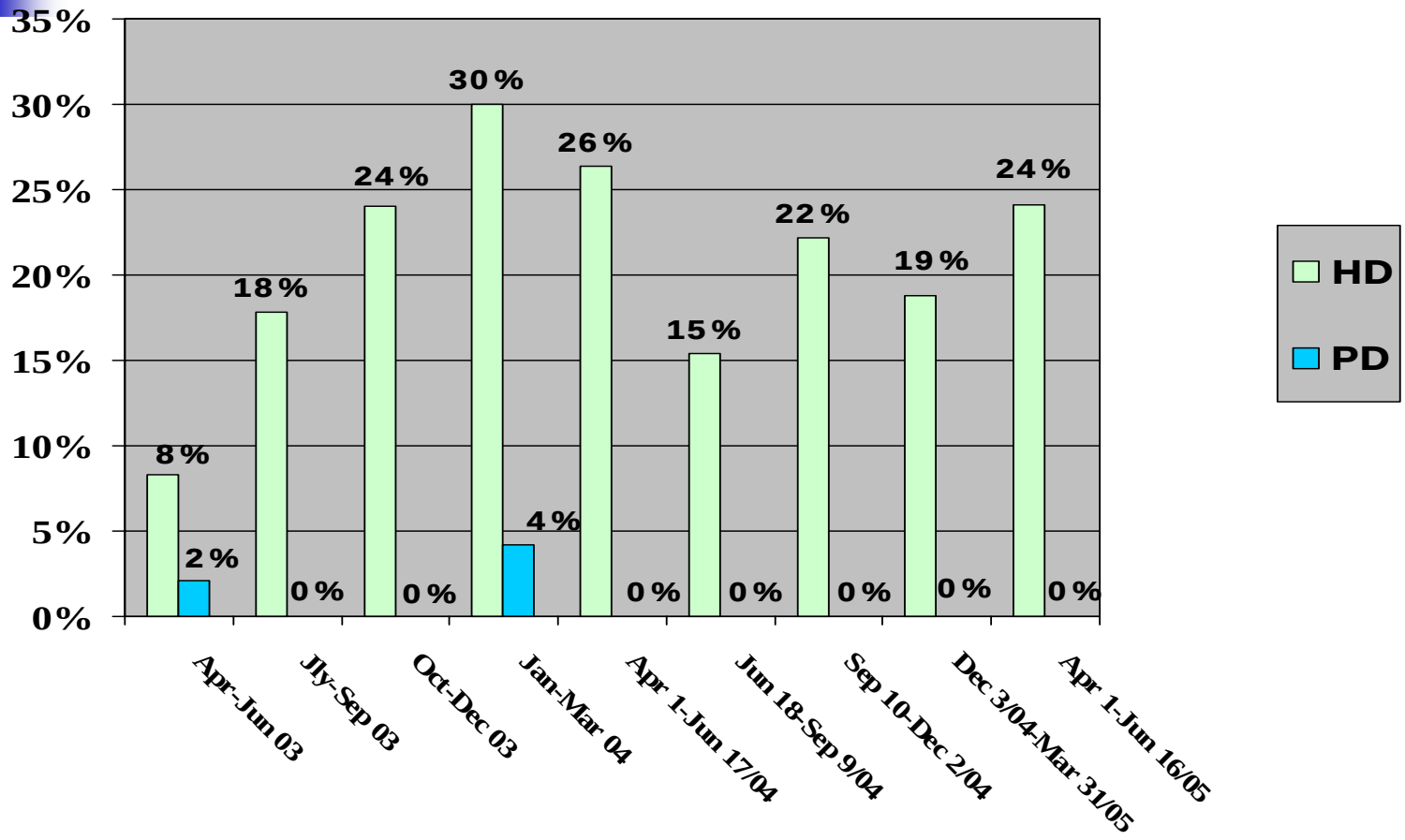


Overall Program Numbers by Modality

Dialysis Patient Modality Mix Ratio
PD : Total Dialysis

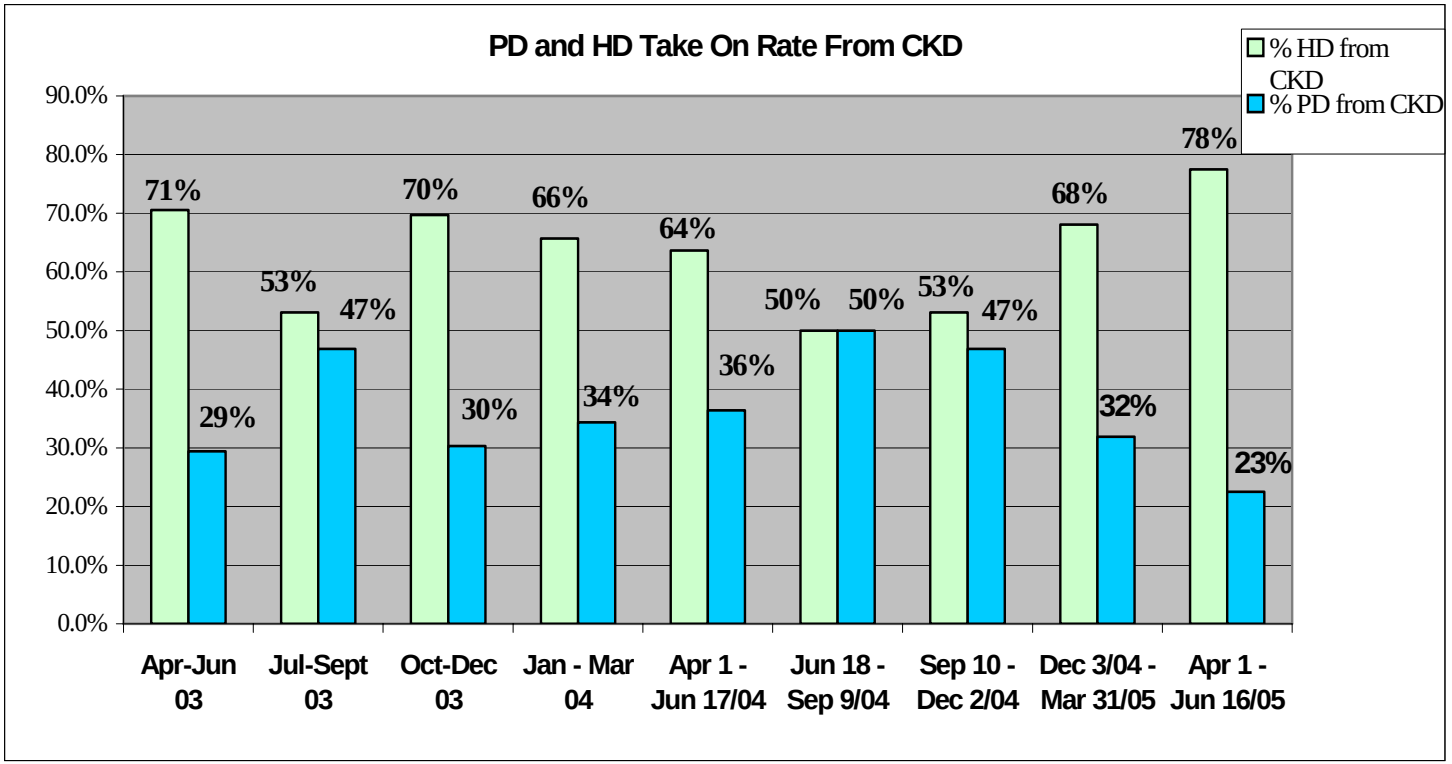


“Not Registered” as a % of Total starting Dialysis



PD and HD Take On Rate from CKD

	April 1st 2003 - March 31st 2004								*April 1st, 2004 - March 31st, 2005*								***Apr 1 - Jun 16/05***	
	Q1		**Q2**		**Q3**		**Q4**		**Q1**		**Q2**		**Q3**		**Q4**		**Q1**	
	HD	**PD**	**HD**	**PD**	**HD**	**PD**	**HD**	**PD**	**HD**	**PD**	**HD**	**PD**	**HD**	**PD**	**HD**	**PD**	**HD**	**PD**
From CKD	24	10	17	15	23	10	44	23	21	12	10	10	17	15	32	15	**31**	**9**
Total Initiated from CKD	34		32		33		67		33		20		32		47		**40**	
% from CKD by modality	70.6%	29.4%	53.1%	46.9%	69.7%	30.3%	65.7%	34.3%	63.6%	36.4%	50.0%	50.0%	53.1%	46.9%	68.1%	31.9%	**77.5%**	**22.5%**



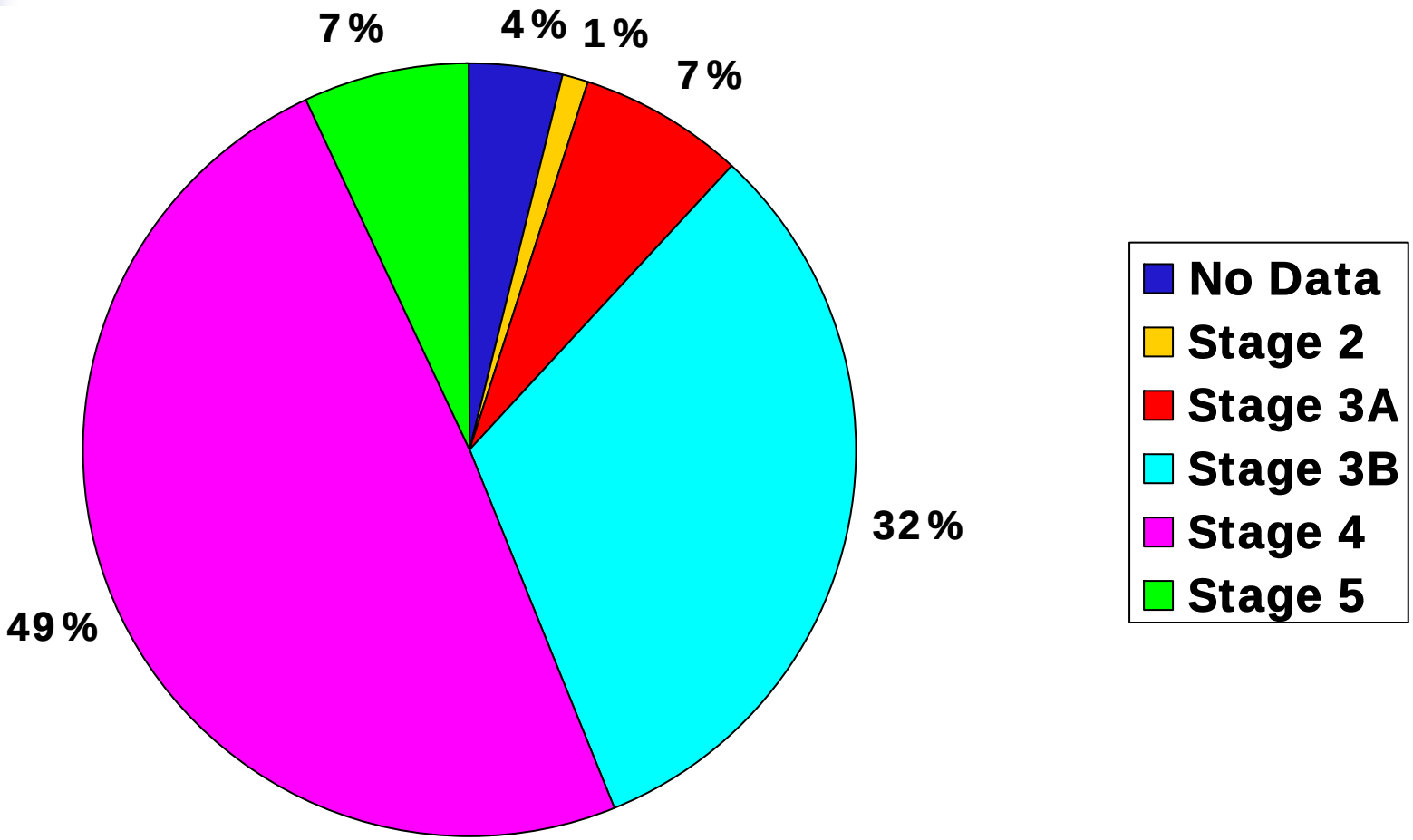
Acute Inpatient Hospitalizations
All FHA Renal Patients
Top 20 CMG's (sorted by # of visits)

Fraser Health Authority Renal Patients

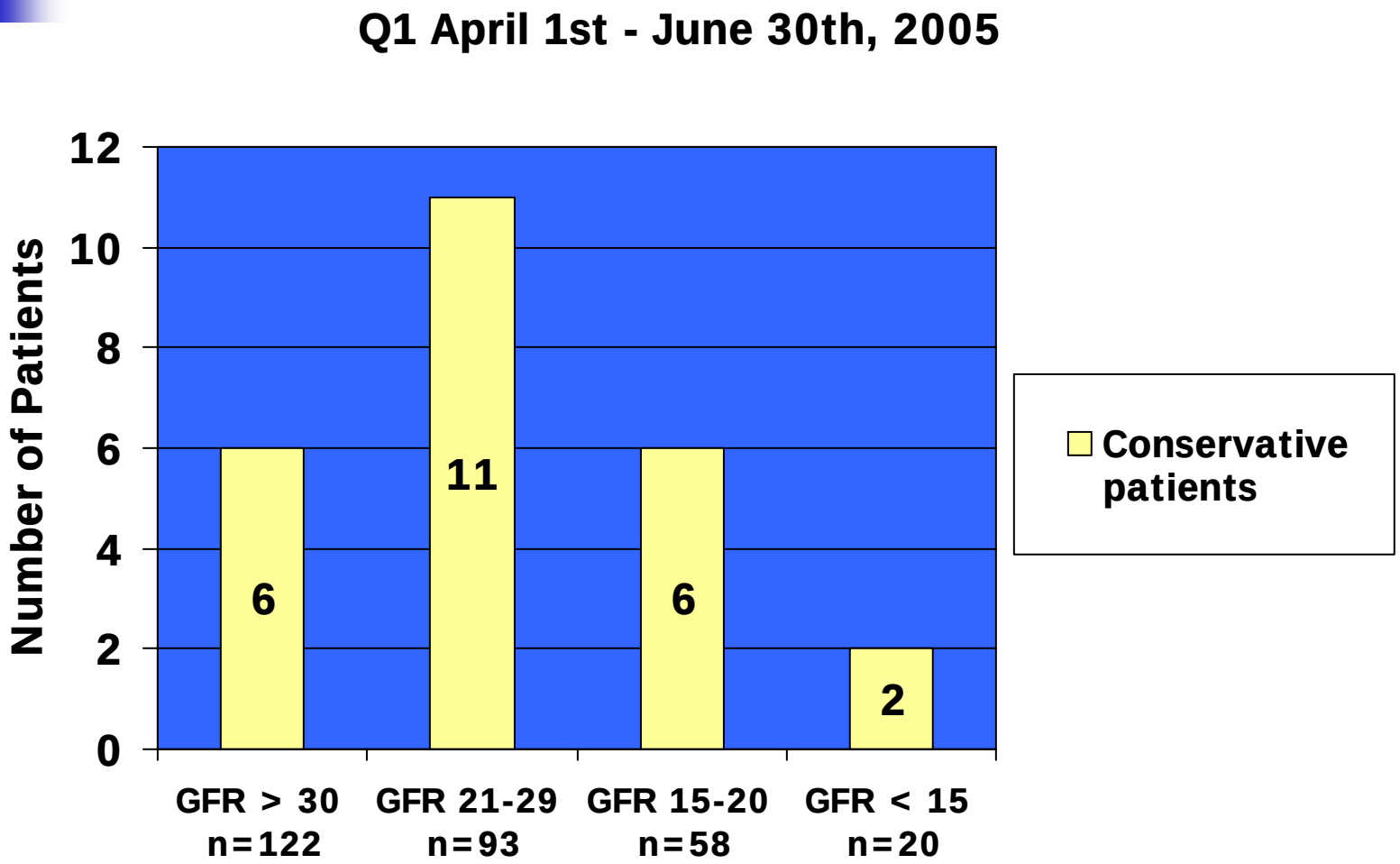
4th Quarter: December 3, 2004 to March 31, 2005

CMG Description	# Visits	Total Days	ALC Days	Acute Days	Acute ALOS
Heart Failure	27	196	23	173	6.4
Esoph/Gastr/Misc Digest Dis	27	106	3	103	3.8
Renal Failure No Dialysis	21	178	15	163	7.8
Simple Pneumonia / Pleurisy	16	106	0	106	6.6
Non-Extensive Unrel OR Proc	16	444	105	339	21.2
Renal Failure with Dialysis	16	255	52	203	12.7
Complications of Treatment	14	67	0	67	4.8
Dialysis Procedures	12	363	0	363	30.3
Multisys/Unspec Site Inf/Surg	9	258	0	258	28.7
Diabetes	9	102	56	46	5.1
Unst Angina-No Cath-No Card	7	19	0	19	2.7
AMI-No Cath-No Spec Card Cond	7	24	0	24	3.4
Non Ext Pr-Injury/Compl Treat	7	95	0	95	13.6
Other GI Diagnoses	6	45	0	45	7.5
Amputat Low Limb except Toe	6	150	49	101	16.8
PTCA - No Complic Card Cond	5	20	0	20	4.0
Biliary Tract Diseases	5	17	0	17	3.4
Syncope/Collapse	5	10	0	10	2.0
Lower Urinary Tract Infection	5	31	0	31	6.2
Other Vascular Procedures	5	89	2	87	17.4

CKD CDM Enrolled Patients by Stage N=306 (April 1– June 30, 2005)



CDM Enrolled Patients – Conservative Patients by Level of GFR

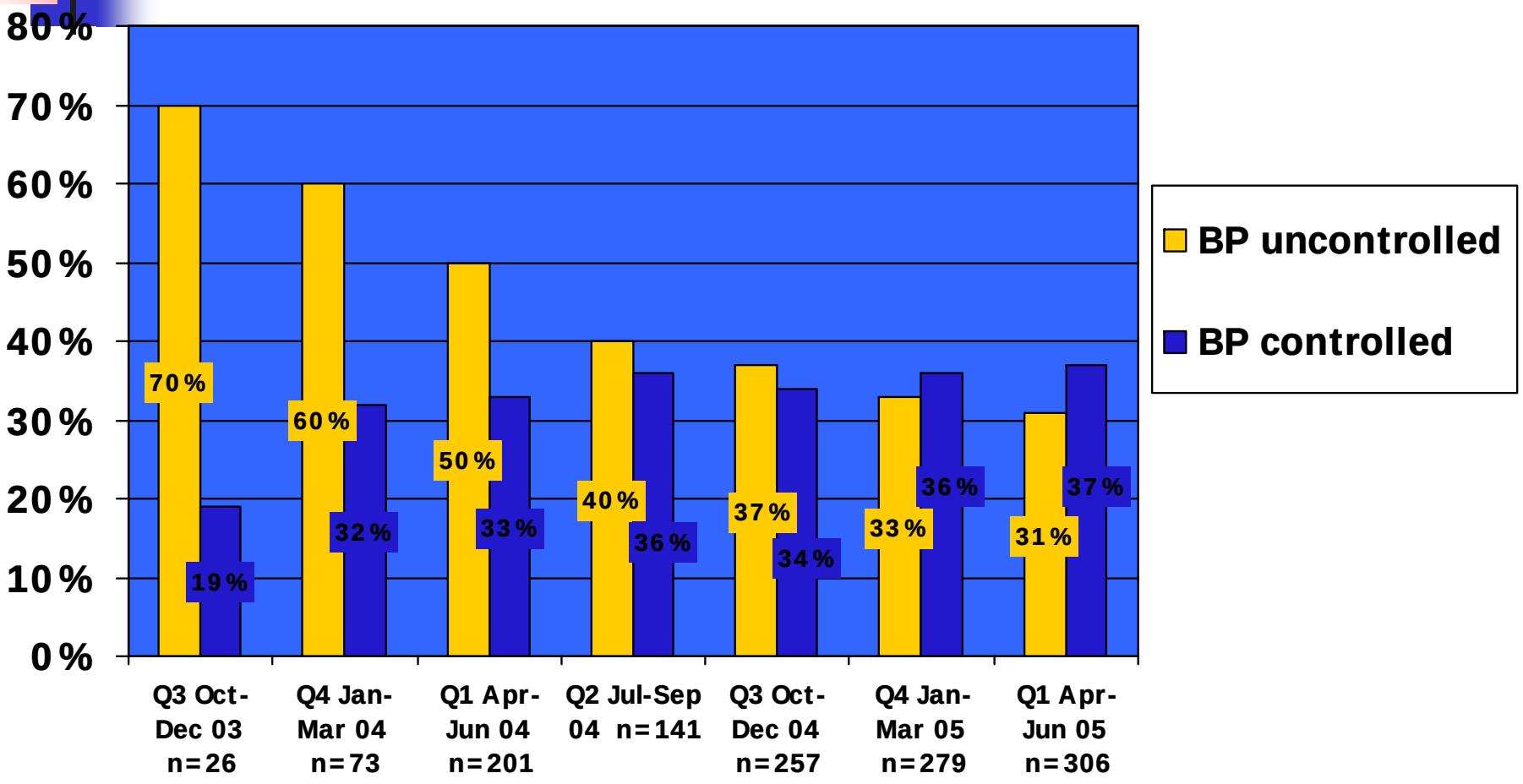


Parameters Targeted for Improvement

- Blood Pressure
- Diabetes Management
- Treatment Modality Education
- Treatment Modality Selection
- Ca/PO4 Management
- Lipid Management
- Vascular Access Initiative
- Anemia Management

Blood Pressure:

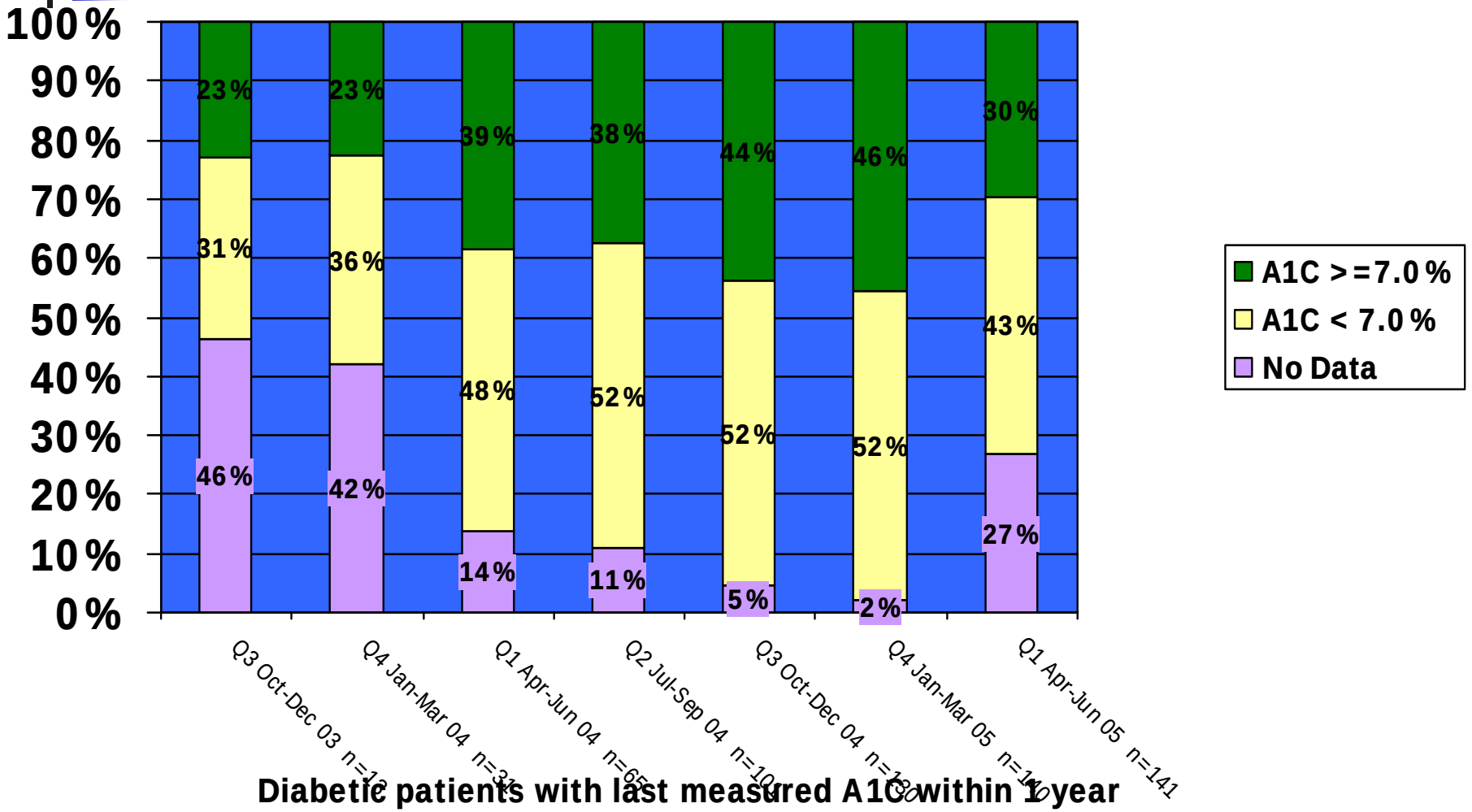
CDM Enrolled Patients



CONTROL=BP < 130/80

Diabetic - CDM Enrolled Patients

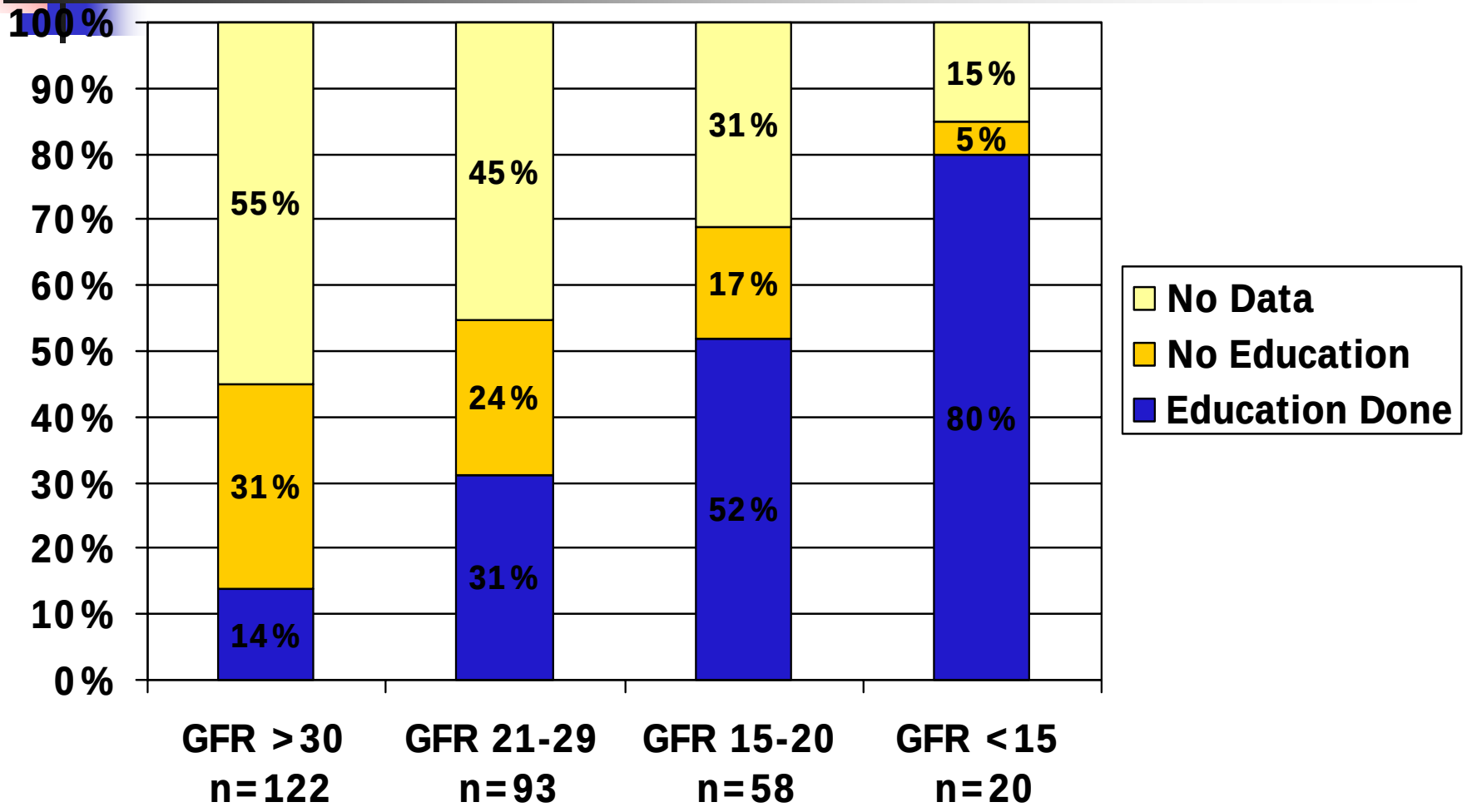
PRA Goal= A1C < 7.0 (Measured every 3 months)
Diabetes Collaborative Target=65% of patients



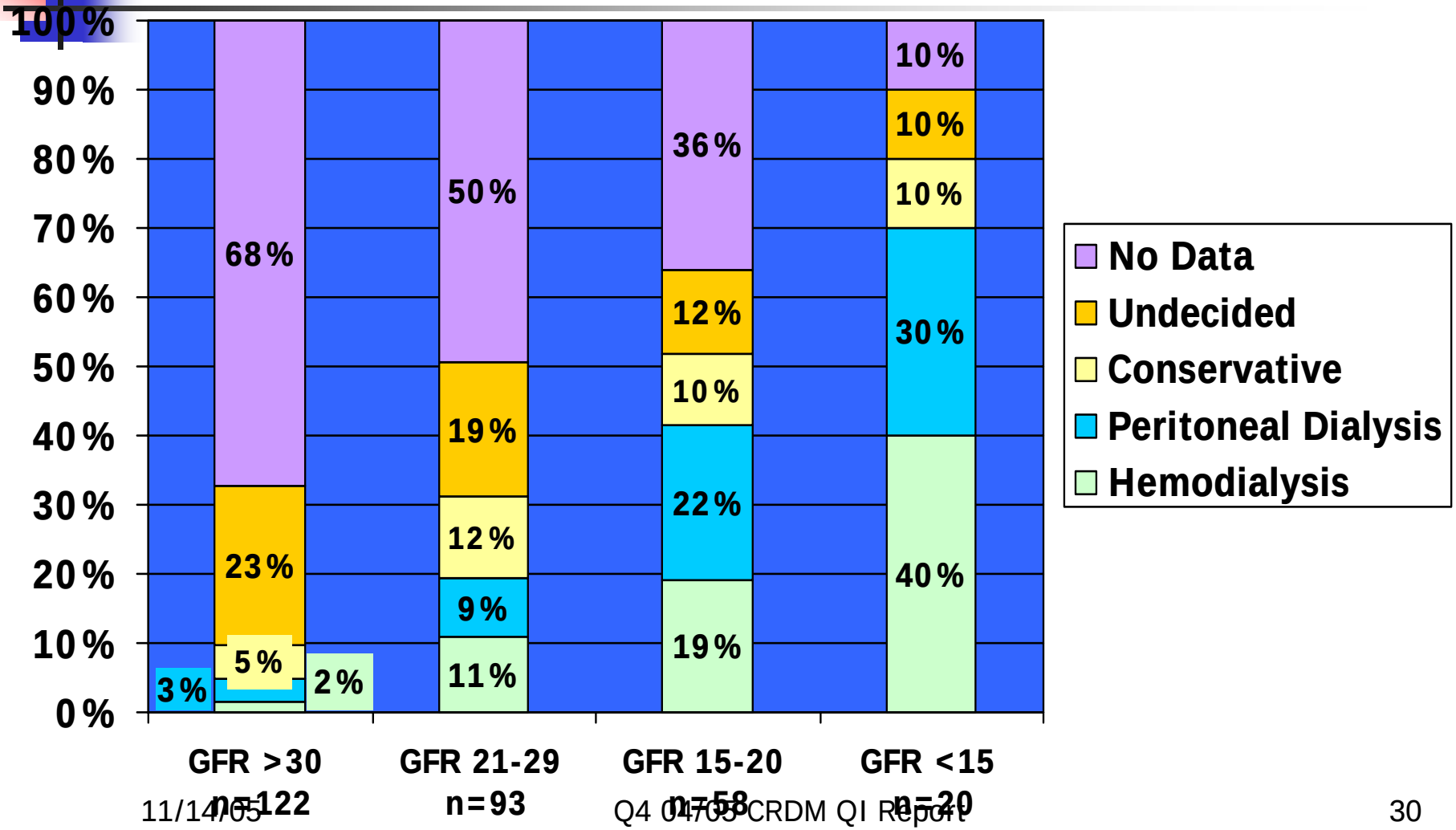
Diabetic patients with last measured A1C within 1 year

Percentage of CDM Enrolled Patients with Treatment Modality Education (April – June 2005)

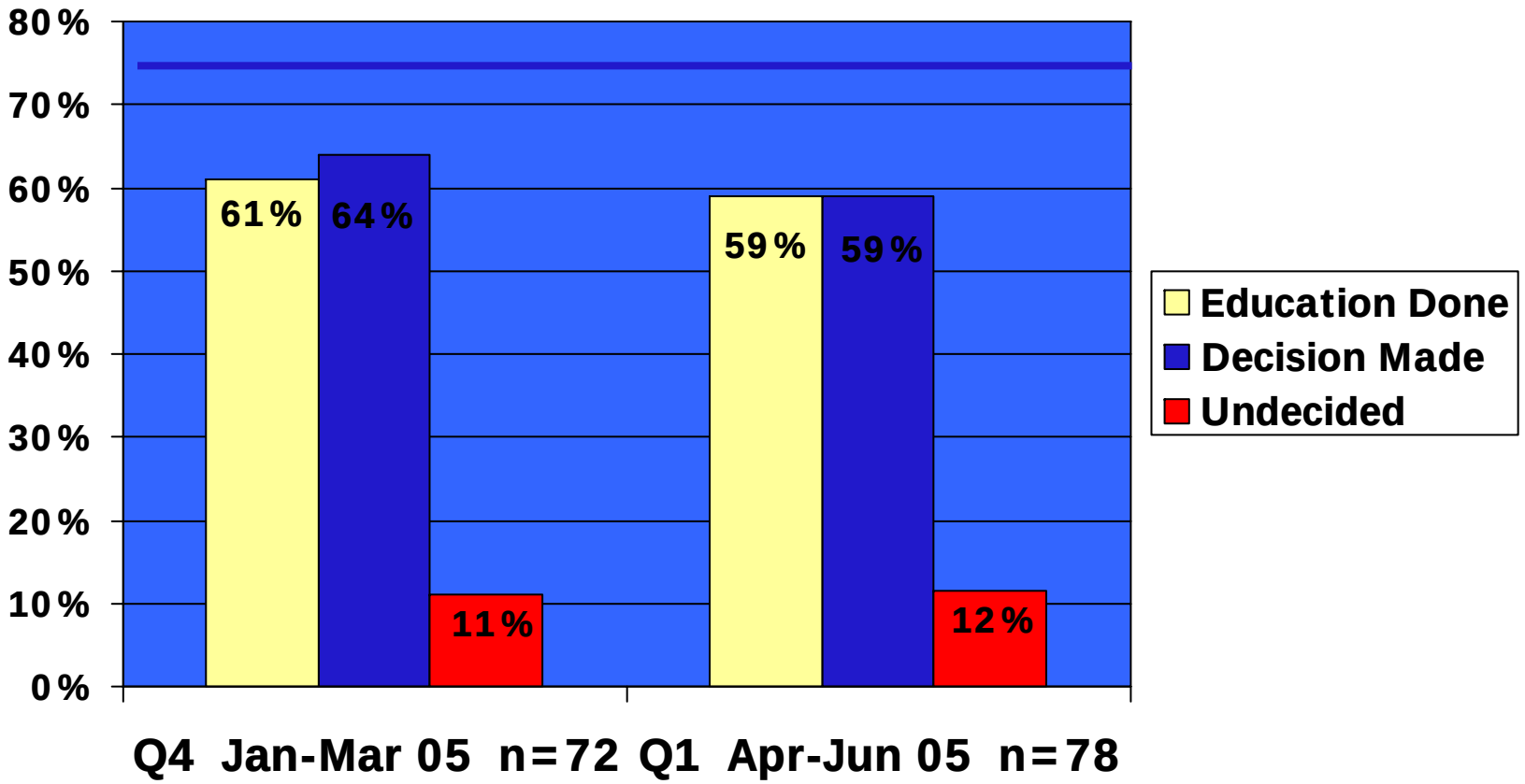
FHA Goal: >75% of patients known to a Nephrologist for >3 months, with a GFR <25 will have attended the Options teaching session



CDM Enrolled Patients: Treatment Modality Selection by Level of Kidney Function (April-June 2005)

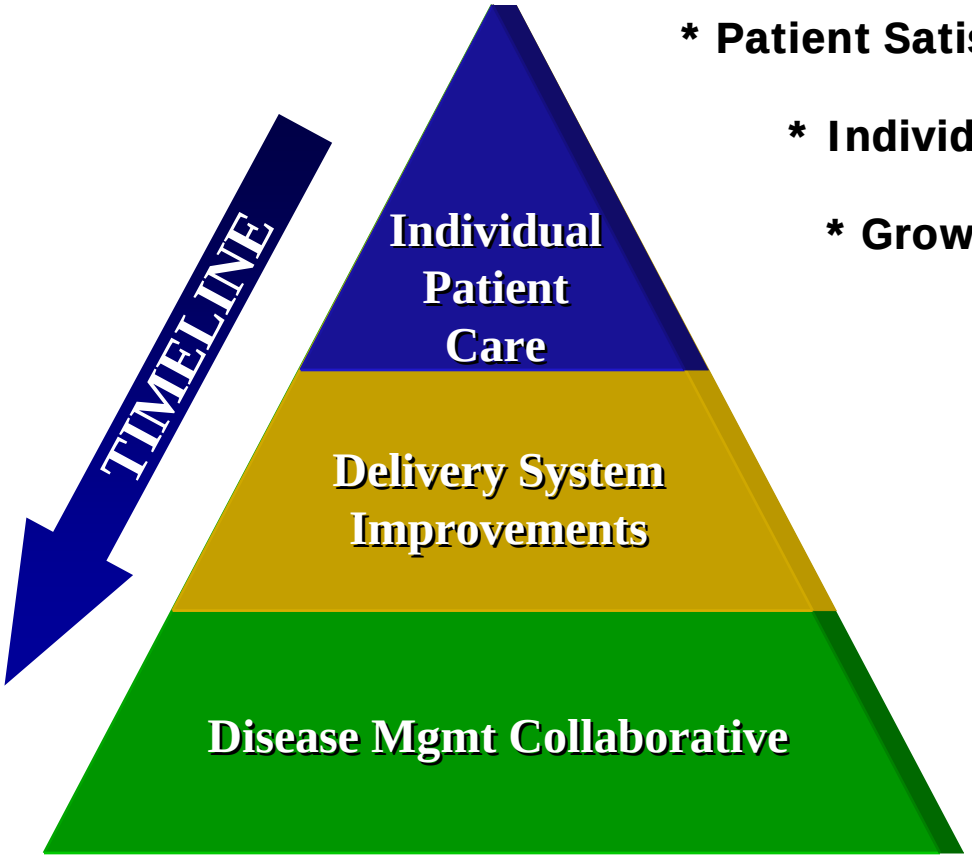


Treatment Modality Selection: % of CDM Patients with Decision Made at GFR <20



FHA Goal: >75% of patients known to a Nephrologist for >3 months, with a GFR <25 will have made a Modality choice

Accomplishments



Initiatives in place to improve clinical outcomes

* **Patient Satisfaction survey**
* **Individual Care Plan for self-management**
* **Growth in Home Therapies**
* **Newsletters published in English, Punjabi, Chinese**
* **Increased tracking of hospital utilization for Renal FHA patients**
* **Increased communication with GPs**

Lessons Learnt

- Renal Disease lends itself to Chronic Disease management Strategies across the continuum
- Evidence based targets available
- Population based strategies needed
- Early intervention needed
- Model to be expanded
- Stakeholder input
- Resource Intensive

Next Steps:

- Further expand application of the Disease Management Model to less advanced disease
- Collaborate with other Disease Management Initiatives
- Implement Primary Health Initiatives for Kidney Patients

GP Response to DM

- **monitoring the care of renal disease, as well as dietary management & decisions as to the transition of dialysis, are complex & multidisciplinary functions. The proposed plan fits well with my practice and I am able to continue the DM/hypertensive monitoring and have the knowledge that my patient has the support of the renal care team. The reassurance for the patient, removes the fears that she has carried, and gives her more confidence in her own disease modifications."**