Transforming Vascular Access Delivery: A New Model

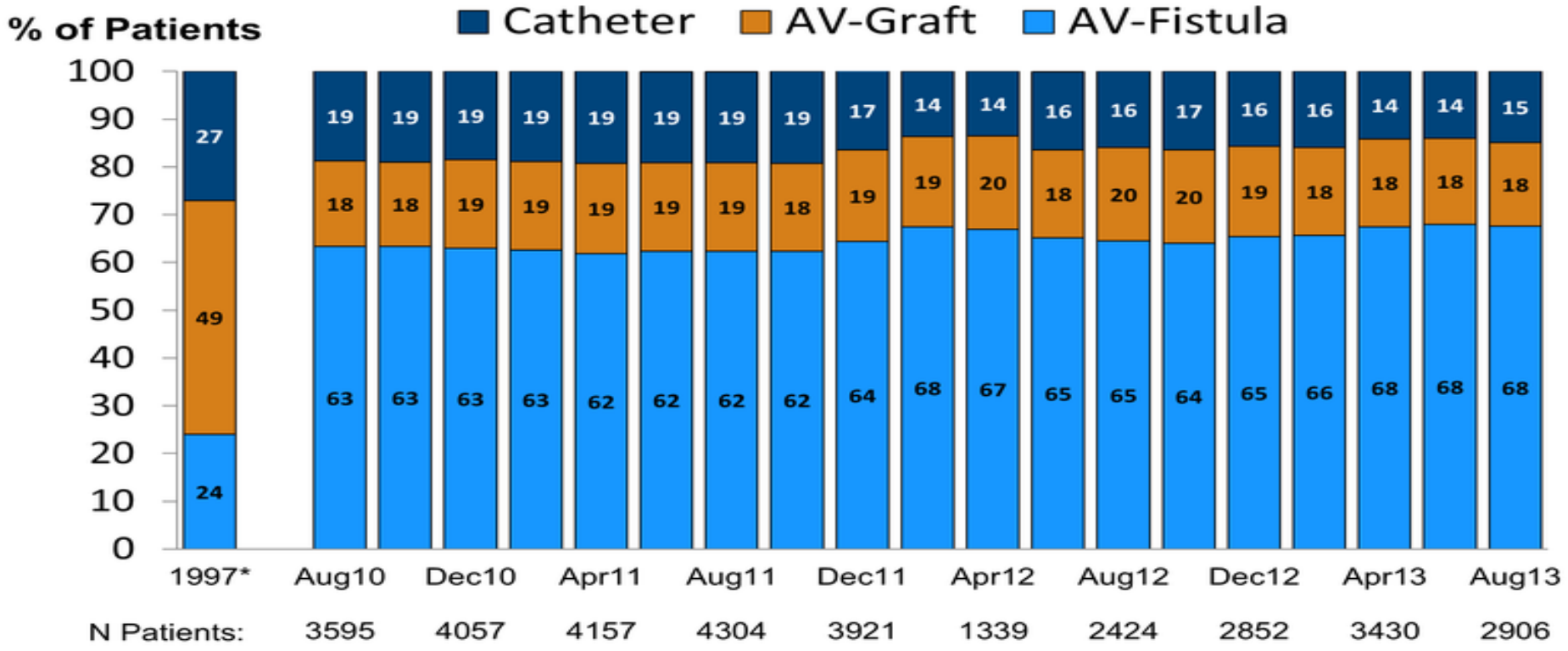
Walead Latif, DO MBA, CPE, FASDIN
Medical Director
Clinical Assistant Professor
Rutgers Medical School


HAMSTER WHEEL
PUFF! PUFF!

Figure 1a

Vascular access in use

US only (2010-2013)

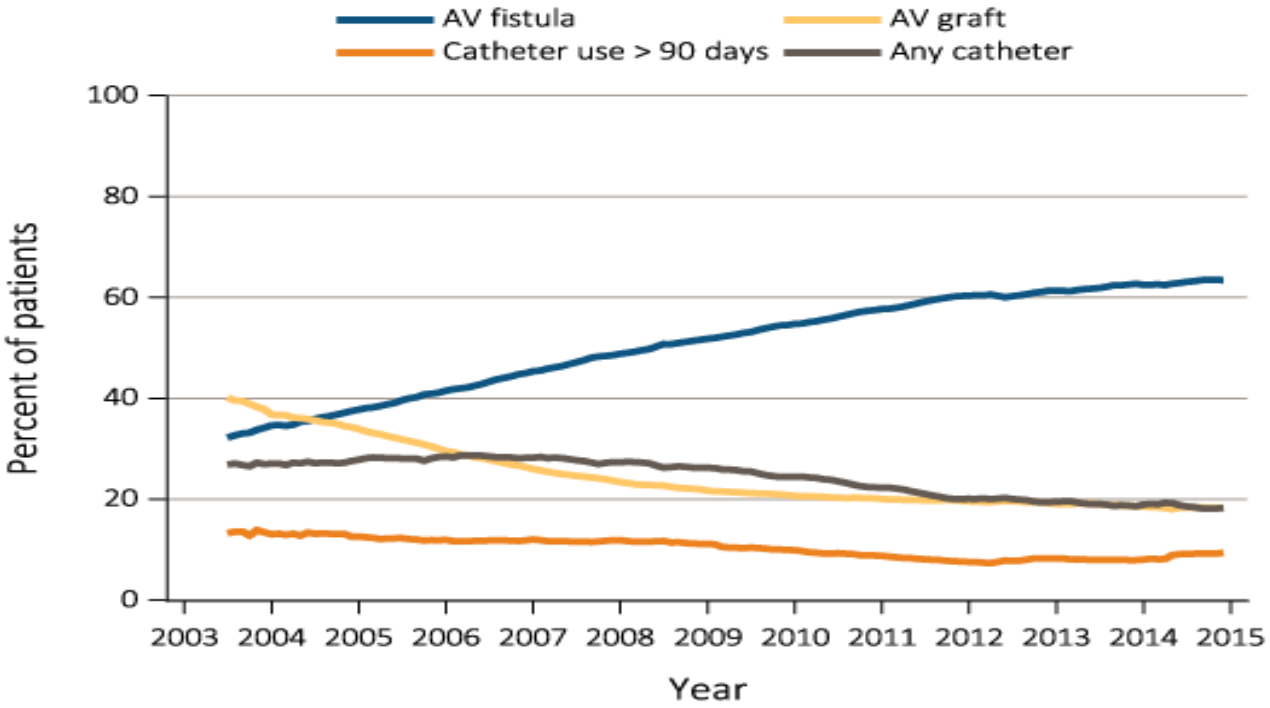


The distribution in VA use (Aug 10-Aug 13) from the DOPPS Practice Monitor. Facility sample transitioned from DOPPS 4 to 5 in Jan-Apr 2012; *data for 1997 VA use from *Pisoni et. al (KI, 2002)*

DOPPS

Pisoni et al. *Am J Kidney Dis.* 2015;65(6):905-915

Figure 4.6 Trends in vascular access type use among ESRD prevalent patients, 2003-2014

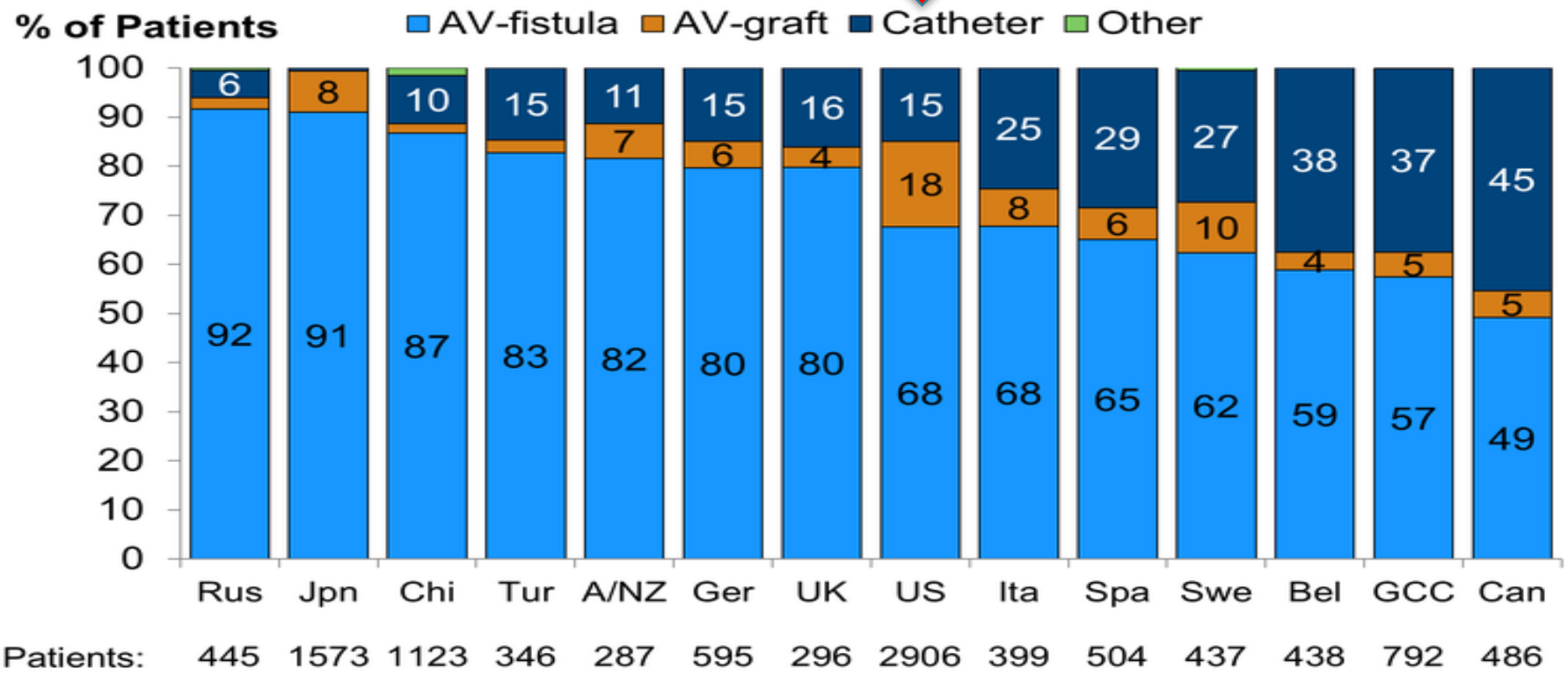


Data Source: Special analyses, USRDS ESRD Database, and Fistula First data. Fistula First data reported from July 2003 through April 2012, CROWNWeb data are reported from June 2012 through December 2014. Abbreviations: AV, arteriovenous; ESRD, end-stage renal disease.

Figure 1b

Vascular access in use, by country*

DOPPS 5 (2012-2014)

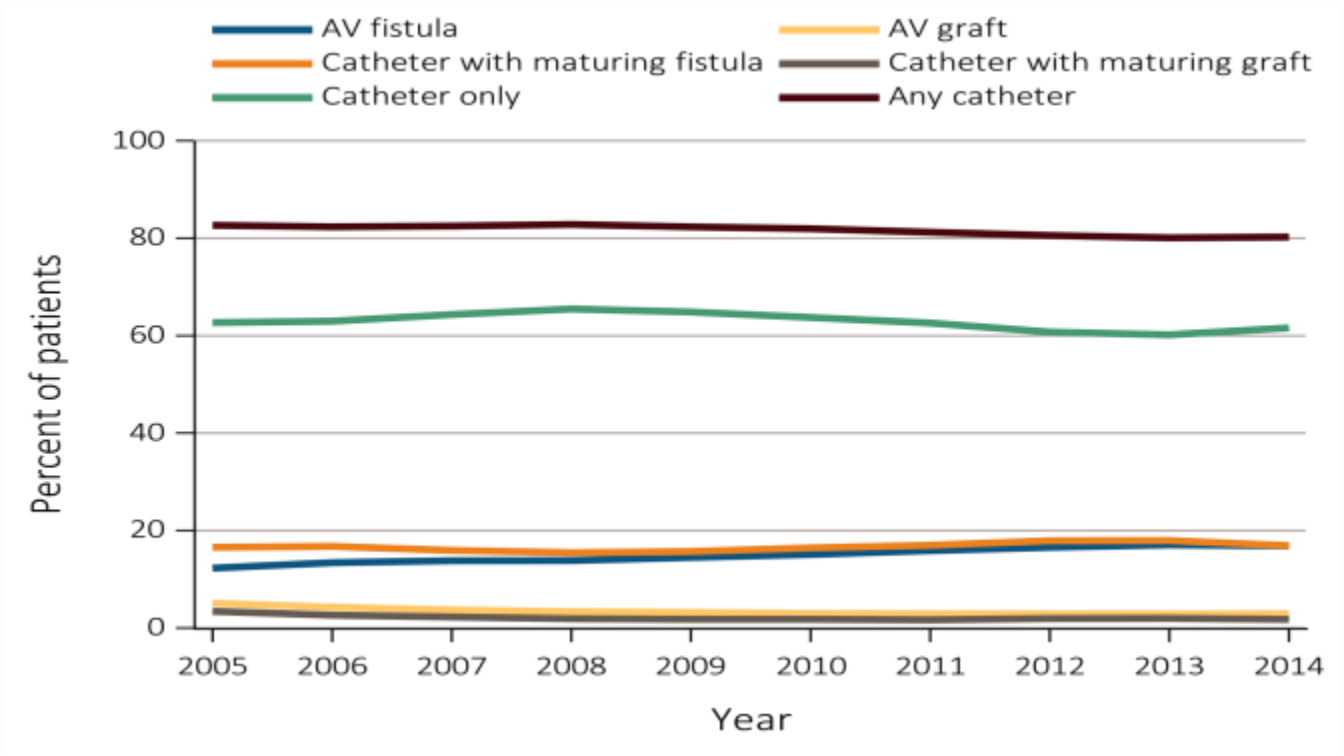


* Data from GCC, Rus, Tur, Bel, Swe, Chi based on VA at the initial cross-section of DOPPS 5; data from remaining countries based on cross-section of HD patients in Aug 2013

DOPPS

Pisoni et al. *Am J Kidney Dis.* 2015;65(6):905-915

Figure 4.1 Vascular access use at hemodialysis initiation, from the ESRD Medical Evidence form (CMS 2728), 2005-2014

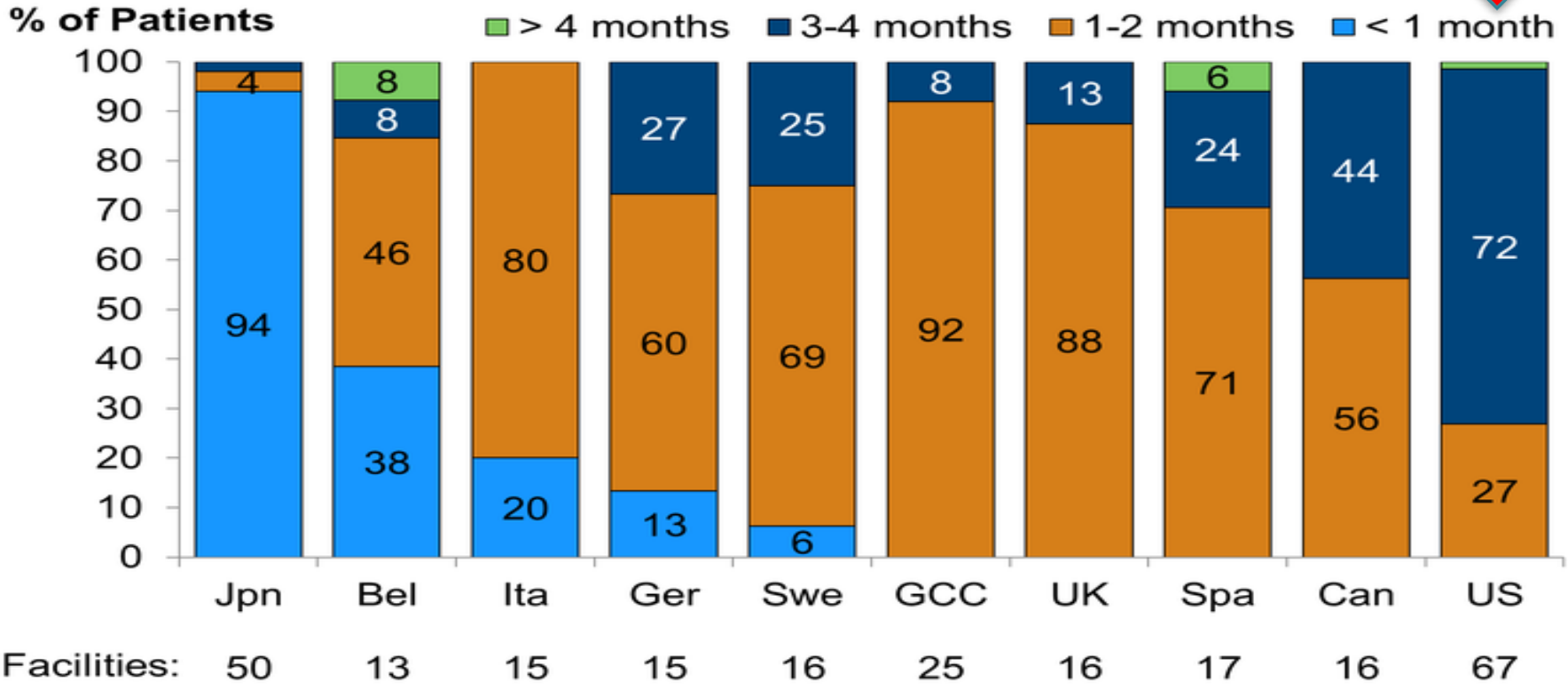


Data Source: Special analyses, USRDS ESRD Database. ESRD patients initiating hemodialysis in 2005-2014.
Abbreviations: AV, arteriovenous; CMS, Centers for Medicare & Medicaid; ESRD, end-stage renal disease.

Figure 6

Typical time to AVF cannulation after surgery[a]

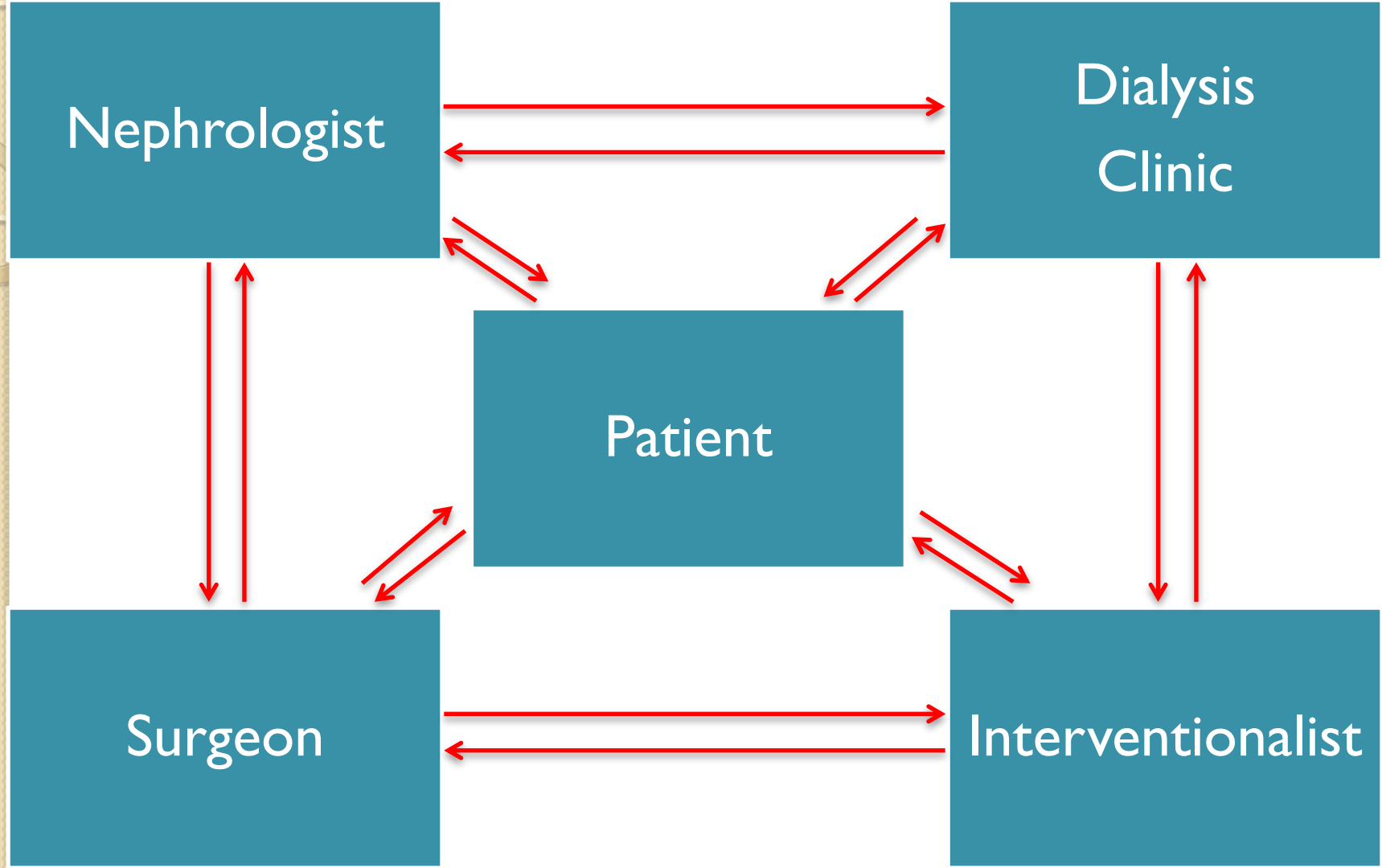
DOPPS 5 (2012-2014)

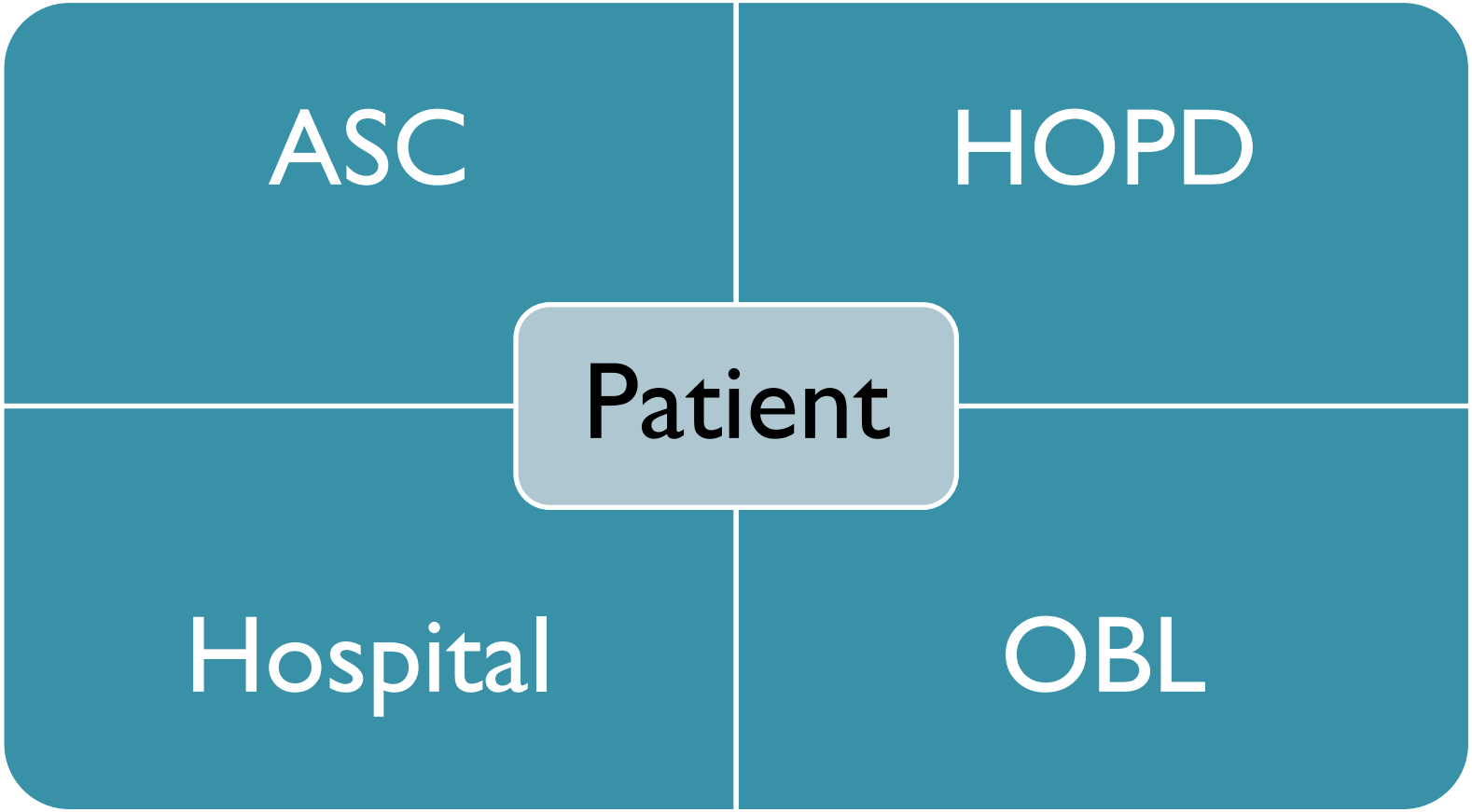


a. Based on survey responses from study site medical directors

DOPPS

Pisoni et al. *Am J Kidney Dis.* 2015;65(6):905-915


Nephrologist
Dialysis Clinic
Patient
Surgeon
Interventionalist


ASC
HOPD
Patient
Hospital
OBL

Value Payment Models

- Five Star
- QIP
- % Fistula Rate
- >90 Day No Catheter Rate

Challenge

- How to improve stagnant catheter rates?
- What metrics should be identified?
- How to implement a systemic program that leads to the desired outcome?


change is difficult.
not changing is fatal.

Quality Change Agents

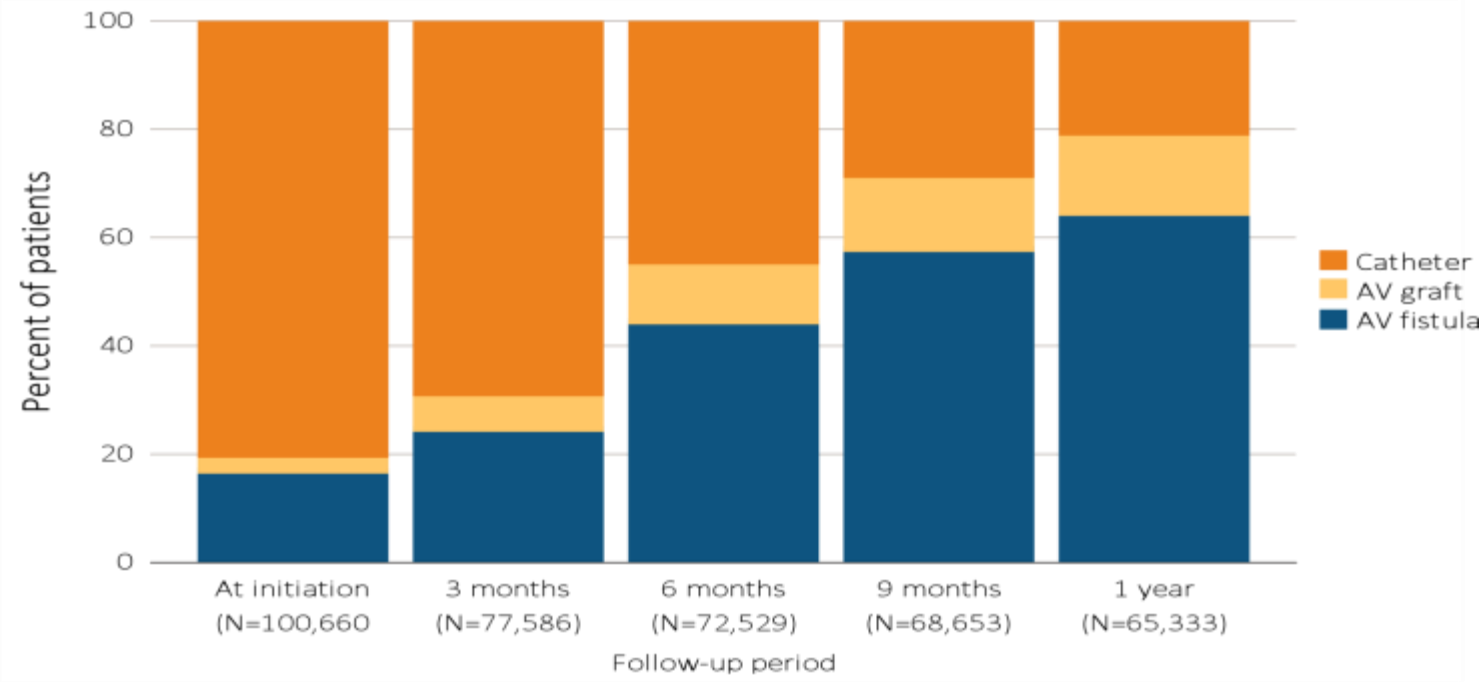
- Patient Advocates
- Service
- Clinical Outcomes
- Active Participants

How to choose the right vascular access partner?

Expectations

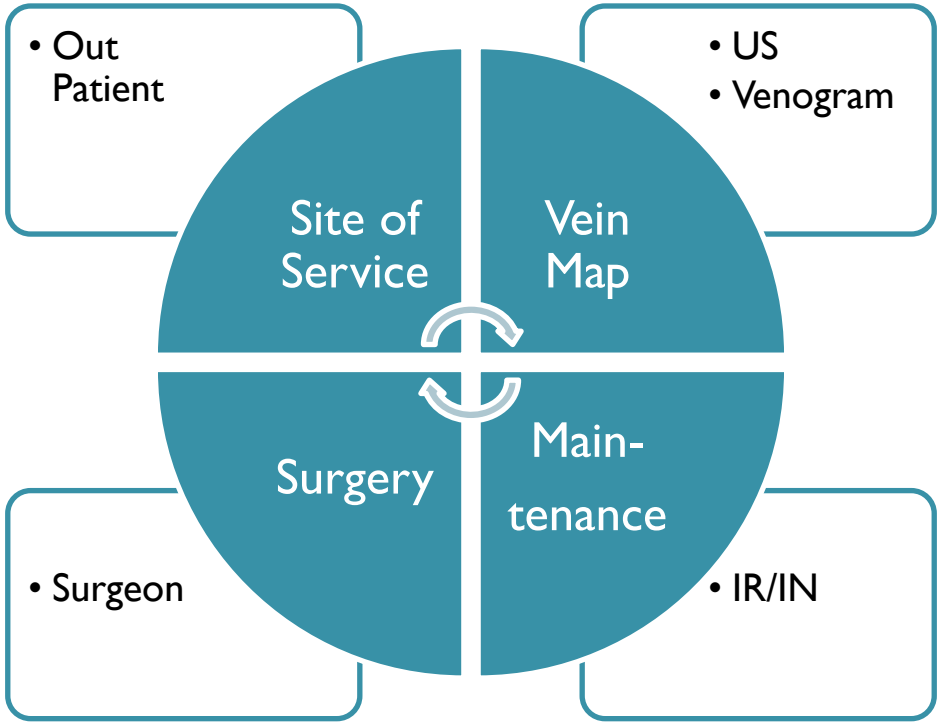
- Service - >90 day catheter rate
- Outcomes - % fistula

Figure 4.7.a Change in type of vascular access during the first year of dialysis among patients starting ESRD via hemodialysis in 2014 quarterly: (a) type of vascular access in use (cross-sectional), ESRD Medical Evidence form (CMS 2728) and CROWNWeb, 2014-2015

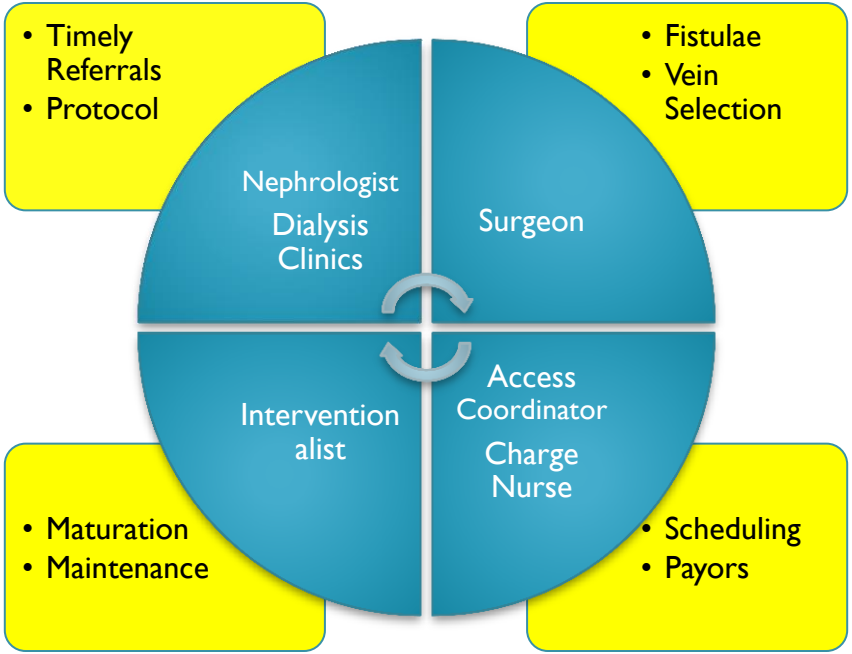


Data Source: Special analyses, USRDS ESRD Database. Data from January 1, 2014 to December 31, 2014: a) Medical Evidence form (CMS 2728) at initiation and CROWNWeb for subsequent time periods. Patients with a maturing AV fistula / AV graft with a catheter in place were classified as having a catheter. Abbreviations: AV, arteriovenous; CMS, Centers for Medicare & Medicaid; ESRD, end-stage renal disease; HD, hemodialysis; PD, peritoneal dialysis.

Center of Excellence



Vascular Access Primary Care Team



Physicians

- Interventional Nephrologist
- Medical Director
- Cinical Assistant Professor at Rutgers Medical School

- Chief, Division of Vascular Surgery at University Hospital
- Program Director for Vascular Surgery Fellowship

About Us

- Launched Care Coordination Program
- Nephrologist/dialysis clinics – timely referrals
- Care coordinator
- Weekly rounds with interventionalist/surgeon
- Weekly rounds with care coordinator
- Track outcomes

Delivered Services

- Comprehensive care for all vascular access needs
- Scheduling of vein mapping, clearances, OR, f/u appointments
- Communication between our staff and your clinic
- Not an access center – Vascular Access PRIMARY CARE TEAM

Figure 1: Permanent Access Placement Metrics

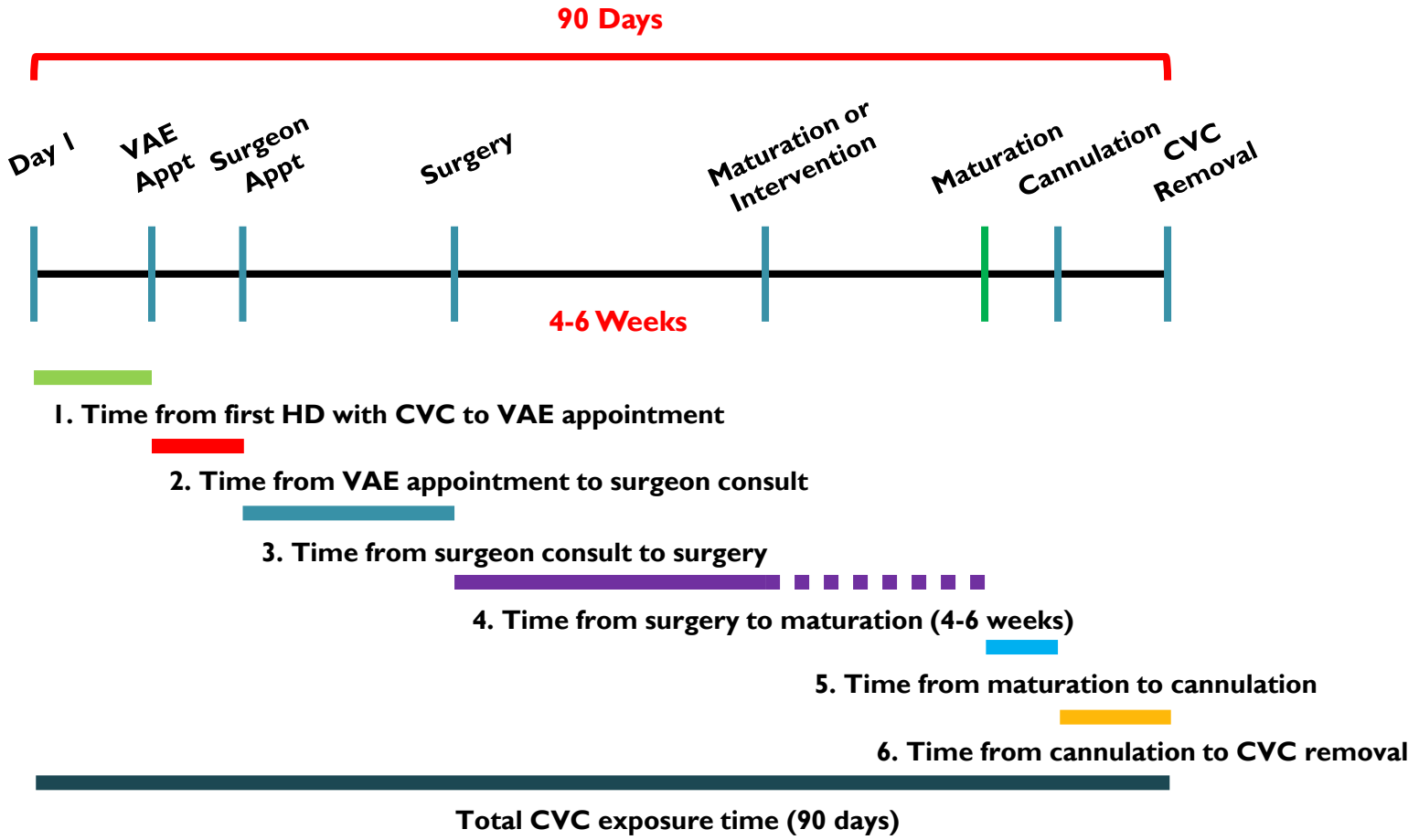


Figure 1: Vascular Access Placement Process Metrics

29 Days

1. Median days from surgical consultation to surgery

73 Days

2. Median days from surgery to catheter removal

35 Days

3. Median days from maturation initiation to catheter removal

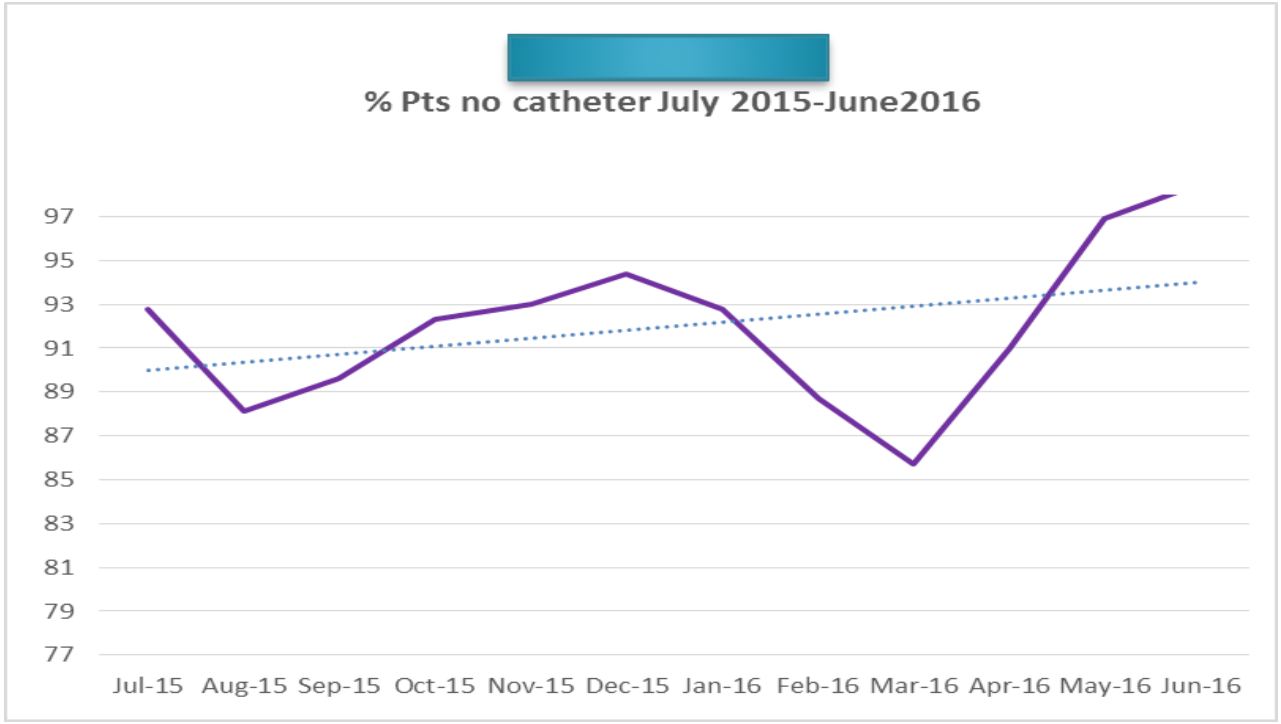
108 Days

4. Total catheter exposure time

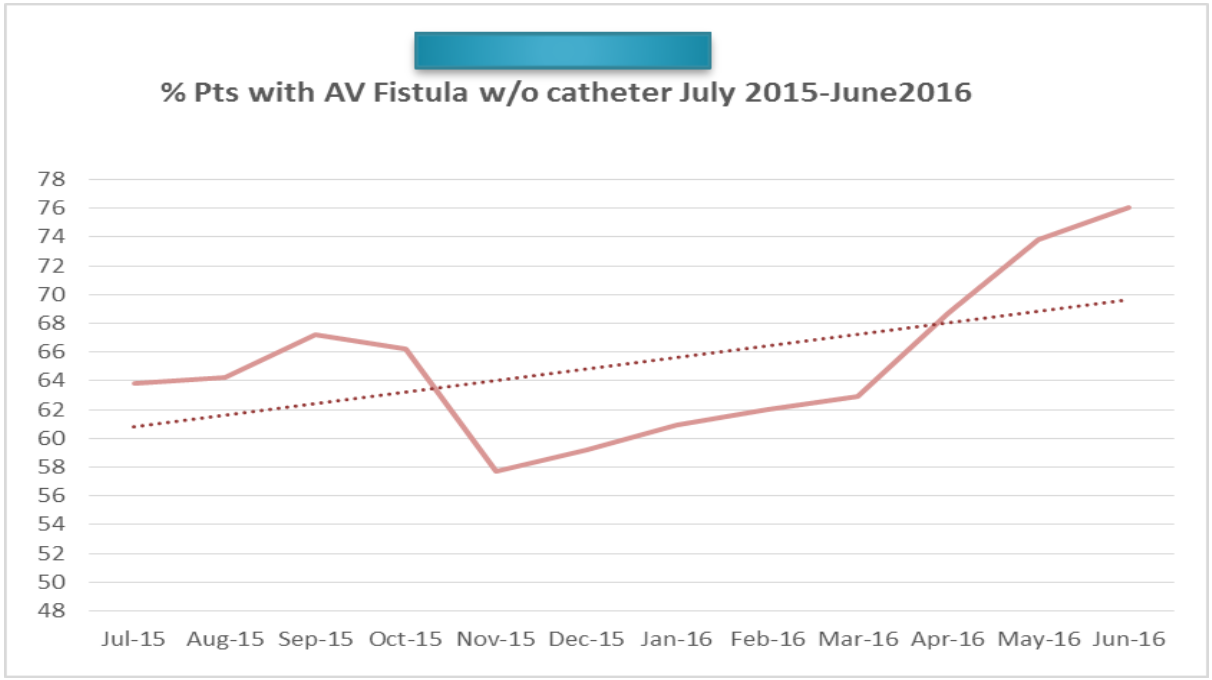
Outcomes

- 86% patients had functioning fistulae
- 14% patients had functioning grafts
- 40% required BAM with an average of 1.67 interventions per patient
- 27% improvement in fistula creation relative to national avg ($p<0.05$)

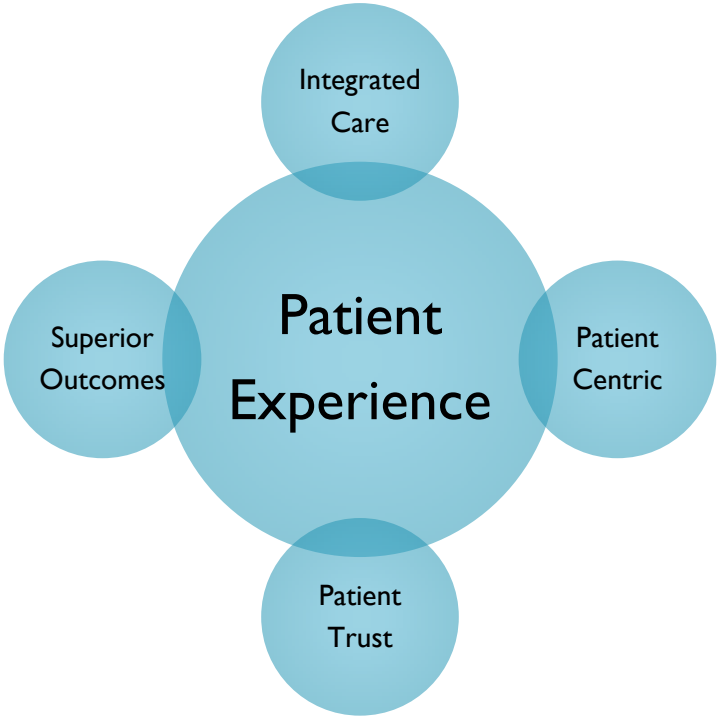
% Pts No Catheter >90 Days (7/15 – 6/16)



% Pts with AV Fistula w/o Catheter (7/15 – 6/16)



Vascular Access Primary Care Team



Patient Journey

- Empower patients
  - Dialogue
  - Listen
  - Engage Family
  - Educate
  - Choice

Strategic Changes

- Advocate for patients
- Open discussion with Medical Director
- Recruit patient advocates
- Identify catheters
- Celebrate outcomes

Future

- Coordinated care programs – market specific
- Data based outcomes drive processes
- Catheter reduction protocols