

CONTROVERSES ET ACTUALITÉS EN CHIRURGIE VASCULAIRE  
CONTROVERSIES & UPDATES  
IN VASCULAR SURGERY



JANUARY 23-25 2014

MARRIOTT RIVE GAUCHE & CONFERENCE CENTER PARIS, FRANCE

## Le Roi Dollar et la Politique des Abords Vasculaires

Money and Politics in USA.  
Lobbying for changes

Vo Nguyen, MD Fistula First  
Emeritus Advisor Member

[www.cacvs.org](http://www.cacvs.org)



## Disclosure

Speaker name: Vo Nguyen

.....

- I have the following potential conflicts of interest to report:
  - Consulting
  - Employment in industry
  - Shareholder in a healthcare company
  - Owner of a healthcare company
  - Other(s)
- I do not have any potential conflict of interest

# Fistula First: grassroot movement

populaire  
magnifique

## Opposed by many experts



Mentors, Friends, Collaborators

thousands

citizens

# Money & POLITICS IN VASCULAR ACCESS

dominée par Payer: **MEDICARE**  
Federal government health insurance Assurance Maladie finance  
pays **over 80%** of dialysis cost for all dialysis patients



**STANDARD OF CARE** IN DIALYSIS  
(adopté la norme de qualité de soins établie )  
Set by National Kidney Foundation  
(le Comité **KDOQI** *Kidney Disease Outcomes Quality Initiative* )

Why are there problems in USA?  
Tout devrait être parfait, où est le problème alors?

# Pre-Fistula First era-before 2003



# Initial 1997 DOQI Vascular Access Guidelines

Setting établi cible **Goal 40%** prevalent AVF rate

**Ugly** villain message in US dialysis community

If our **experts** could not even get 40% AVF rate,  
ne parvenaient pas à 40%

It's ok to use **deadly** vascular access-grafts and catheters on  
*La communauté avait la Carte blanche pour dialyser la majorité*  
**60-70%** of HD patients



Is it possible that our **experts** could not get 40% AVF rate?

## Dialysis access consortium (DAC) study

University based dialysis centers (Duke U, Boston U, U. Pennsylvania...)

Community based dialysis centers

*J. American Medical Ass.* 2008;299(18):2164-2171

## A Randomized Controlled Trial

*cette étude randomisée contrôlée*

**60% of AVF failed to mature**

Taux d'échec primaire de maturation de 60%

With shining *tel* example from the top

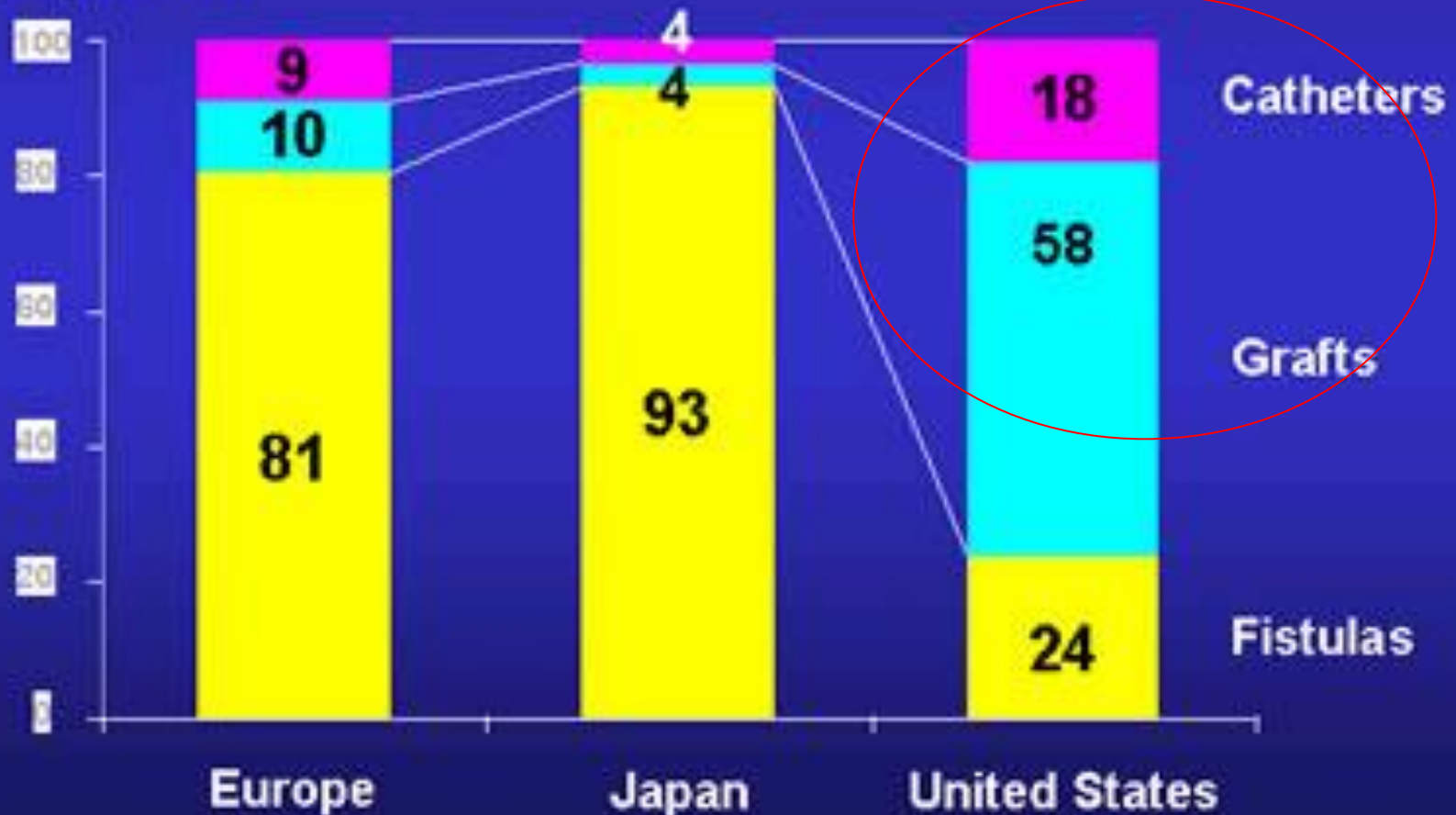
No wonder why America had problems pre Fistula First

*c'est pas étonnant que*

# High AVF Use Among Prevalent Hemodialysis Patients in Europe & Japan

2002 **DOPPS**

% of patients





High AV Graft use *amène*



High failure rate

Taux d'échec élevé

What did **DOQI experts** recommend

Que conseillent les experts ?

# DEFINITION

2006 DOQI guideline 4-**Recommendation**

## Detection of Access Dysfunction

AJKD (48) No 1, Suppl 1, 2006. S210-S233)

Monthly **Surveillance of graft:**

Periodic evaluation by using tests/instrumentations

Intra-access flow measurement

Static venous dialysis pressure

Duplex ultrasound

Pre-emptive preventive angioplasty of failing AV Graft

despite the **absence** of irrefutable clinical evidence

of its **benefits** de preuve clinique irréfutable

# The latest gimmick **stent-graft**

dernier truc

## Stent graft versus balloon angioplasty for failing dialysis-access grafts NEJM 362: 494;2010

A prospective, multicenter, randomized, controlled trial

**6 months** after **stent-graft** placement,  
**primary AVG patency** was achieved only

Perméabilité primaire

in **51%** of patients

(vs. **23%** in balloon-PTA groups)

Within 6 months of PTA, **most AVG** had failed again

*dans les 6 mois, majorité ont redéveloppé la sténose*

*Grafts have recurrent stenosis-thrombosis*  
*Requiring high intervention rate*

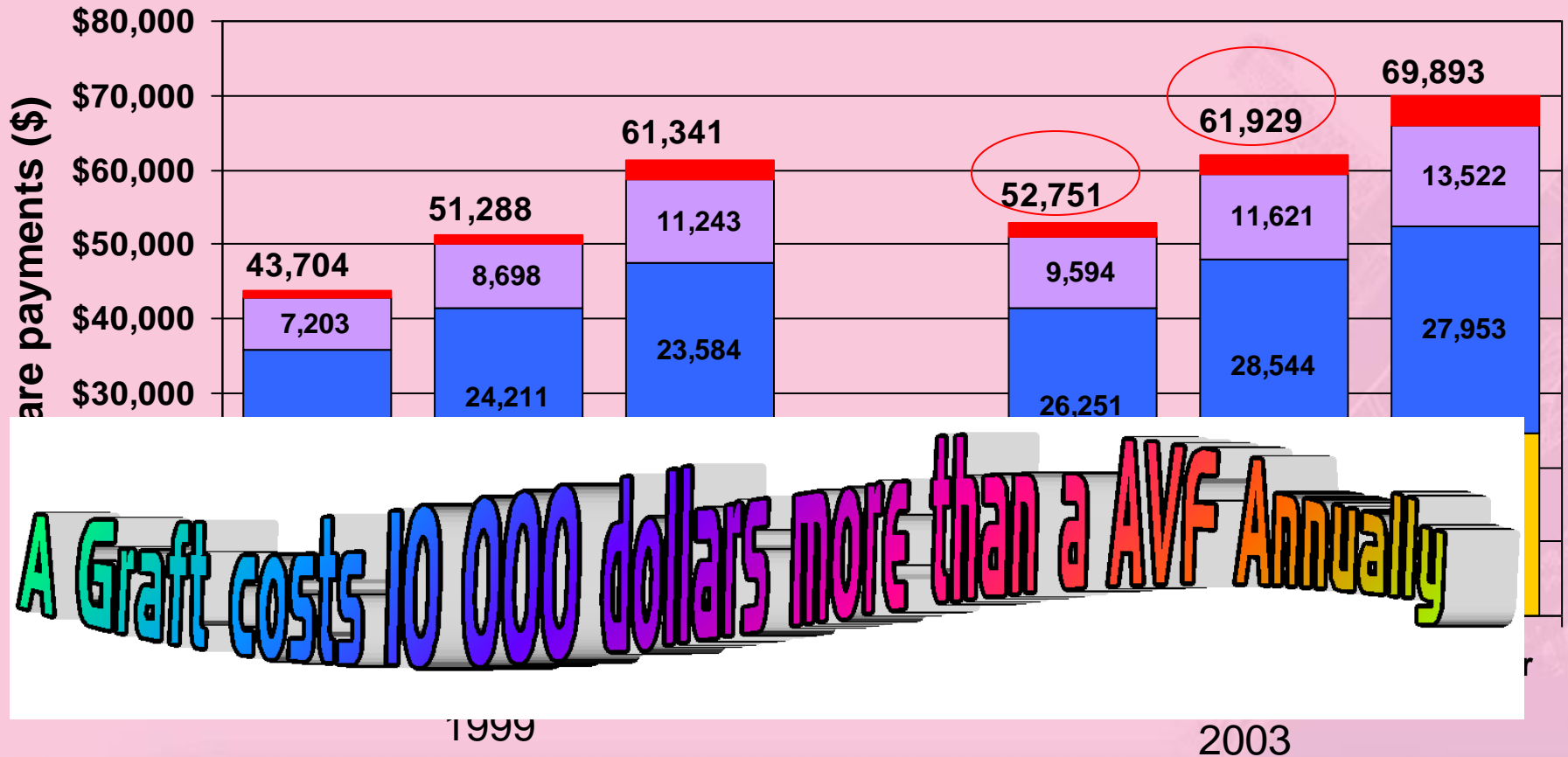
## Procedure Counts (Per 100 Access Years), Graft v. Fistula, US-DOPPS

Type of Procedure	Graft (n=2,788)	Fistula (n=1,302)	Adjusted Relative Rate (G/F)
Angiogram	4.5	3.3	1.45
Angioplasty alone	4.2	2.4	2.03 <sup>†</sup>
Thrombectomy, clot lysis or revision	48	13	7.02 <sup>†</sup>
Any vascular access procedure	57	18	8.01 <sup>†</sup>

<sup>†</sup>p<0.05; †p<0.0001

# Per Person Per Year Medicare costs

■ Inpatient 
 ■ Outpatient 
 ■ Physician 
 ■ Other



Paul W. Eggers, PhD-NIDDK



300 0



La manne tombée du ciel

un gouffre financier sans fond pour les contribuables

Excess cost re **OPPORTUNITY** **00** dollars annually





Contact a  
Franchise Consultant a  
**McAccess**

Major **for-profit** dialysis corporations

compagnies nationales de dialyse:

Fresenius/Davita etc.

Chains of **free standing Outpatient access centers**

**Franchises-McDonald** of dialysis Access Centers

Owned dont le *propriétaire/ investisseur* est by nephrologists

Procedures effectuent interventions radiologiques done

by Interventional (investisseur) **Nephrologists**

after **on site training** for 6 weeks

(pour certains néphrologues, entraînement sur place de 6 semaines)

# Interventional Nephrology

## The State of Outpatient Dialysis Access Centers- [Aris](#) [Q. Urbanes, MD](#) 2013



**Nephrologist owned** Access centers in US

rose from **58** in 2004 to **210** in 2013

ascension phénoménale

propulsé Reimbursement rate somme faramineuse:

**\$4,982/procedure**

Dobson A,, Urbanes A, Beathard

**Seminars in Dialysis** (Aug 2013)

(nephrologist fee + facility fee)

Brachial cephalic transposition: Surgeon reimbursement:

*Rappelons des modestes honoraires*

**548 dollars** in Olympia (+ hospital fee)



# What **benefits** did we obtain from these **\$\$\$\$\$**?

(Bilan de ces interventions?)

JASN 13: 226A, 2002: “**Successful**” Outcome in a Dedicated  
Interventional Access Center: Dr Beathard

**6826** procedures in several centers(2001-2002)

*Étude sur ces centres démontre que leurs interventions portent en majorité sur*

**36% catheter** placement

PTA, thrombectomy, venogram **49% graft**,  
**13% AVF**

**2.8%** vein mapping

**NOTHING** Bilan négatif

Too much intervention on **mostly bad** vascular access

**85%** of catheter and AV grafts

would only Lead to **more bad** vascular access

servant simplement à prolonger la vie des catheters-pontages

# Interventional nephrology has helped advancing the science in vascular access intervention

Money and Medicine  
toxic mixture



**FINANCIAL** *motivations malsaines* **INCENTIVES** for  
PLACING/MAINTAINING Grafts preservation

For many nephrologists,  
Vascular Access Center is business investment

investissement lucratif

Grafts requires many more interventions  
up to 8 times more for AVF

**Pontage**=la poule qui pond des **oeufs** en **or**

Each intervention (every few months):

don't chacun vaut **4900 dollars** [www.cacvs.org](http://www.cacvs.org)



(Gold) Rush *ruée vers l'or*  
by the **best and brightest** nephrologists  
into Intervention Nephrology



May have led to other Adverse Consequences  
*perverses*

Implications of a *accentue la pénurie préexistante* **Nephrology**

**Workforce Shortage** for Dialysis Patient Care

Seminars in Dialysis—Vol 24, No 3 (May–June) 2011

pp. 275–277

**Overworked** *surmenés, débordés* **Non Interventional** Nephrologists:  
No time/interest to deal with vascular access issues

# Vascular Access Center Business

**Business-USA: \$-COMPETITION**

**Convenience** faciliter la vie

For busy surmenés nephrologists in dialysis practice

(Monthly) **Surveillance** of AV grafts: intra-access blood flow

**PROTOCOL of surveillance:**

Intra-access Blood flow decline

*déclin du débit sanguin déclenche **automatiquement***

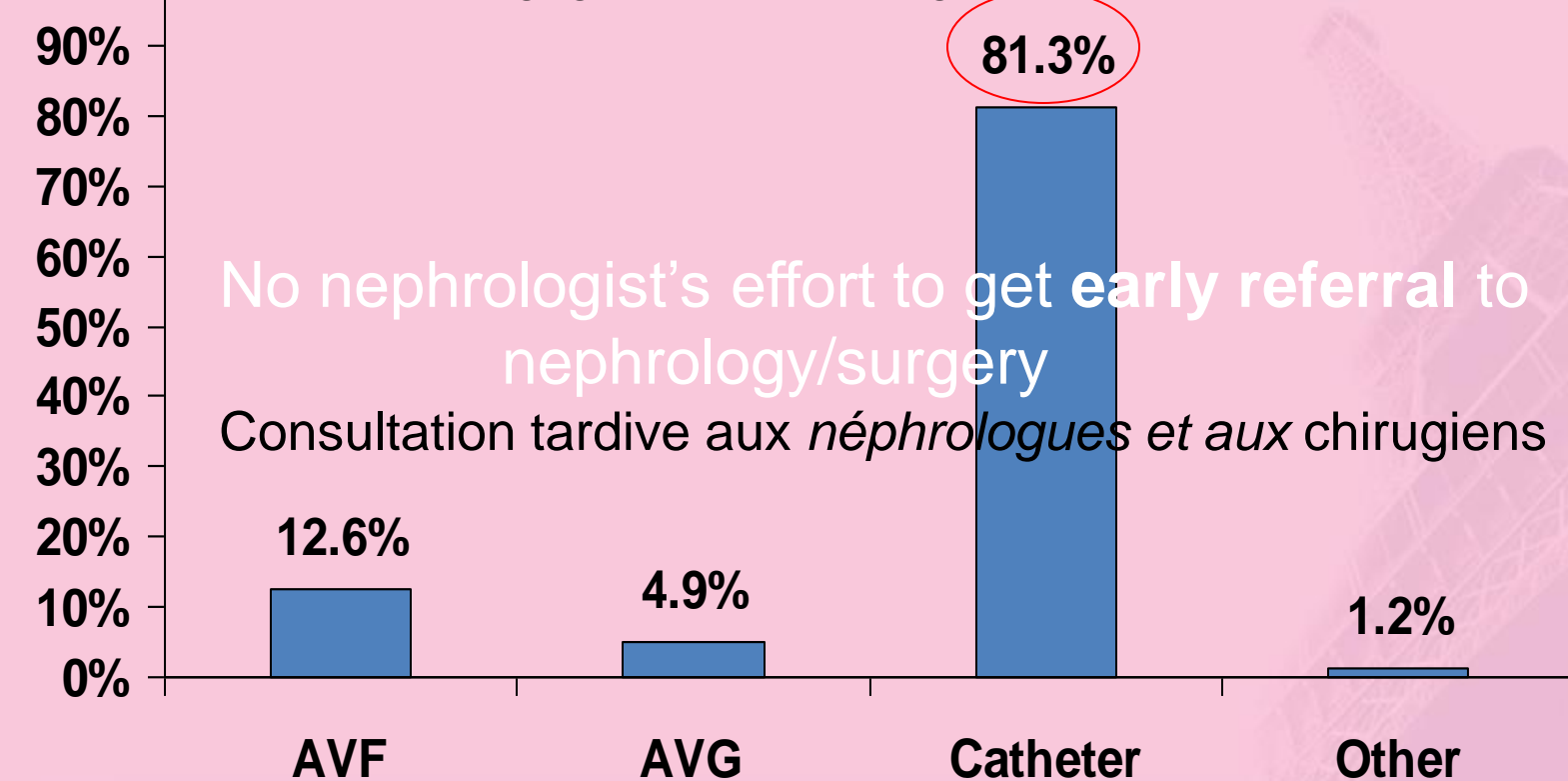
Nurse orders PTA of AVG **directly-without** calling nephrologist  
**sans** prévenir les néphrologues

# Vascular Access at first Dialysis

May 2005-April 2006 (N=75,206) à la 1<sup>ère</sup> séance de dialyse

## Consequence of non nephrologists' involvement?

100% de l'absence d'engagement néphrologique dans l'abord vasculaire

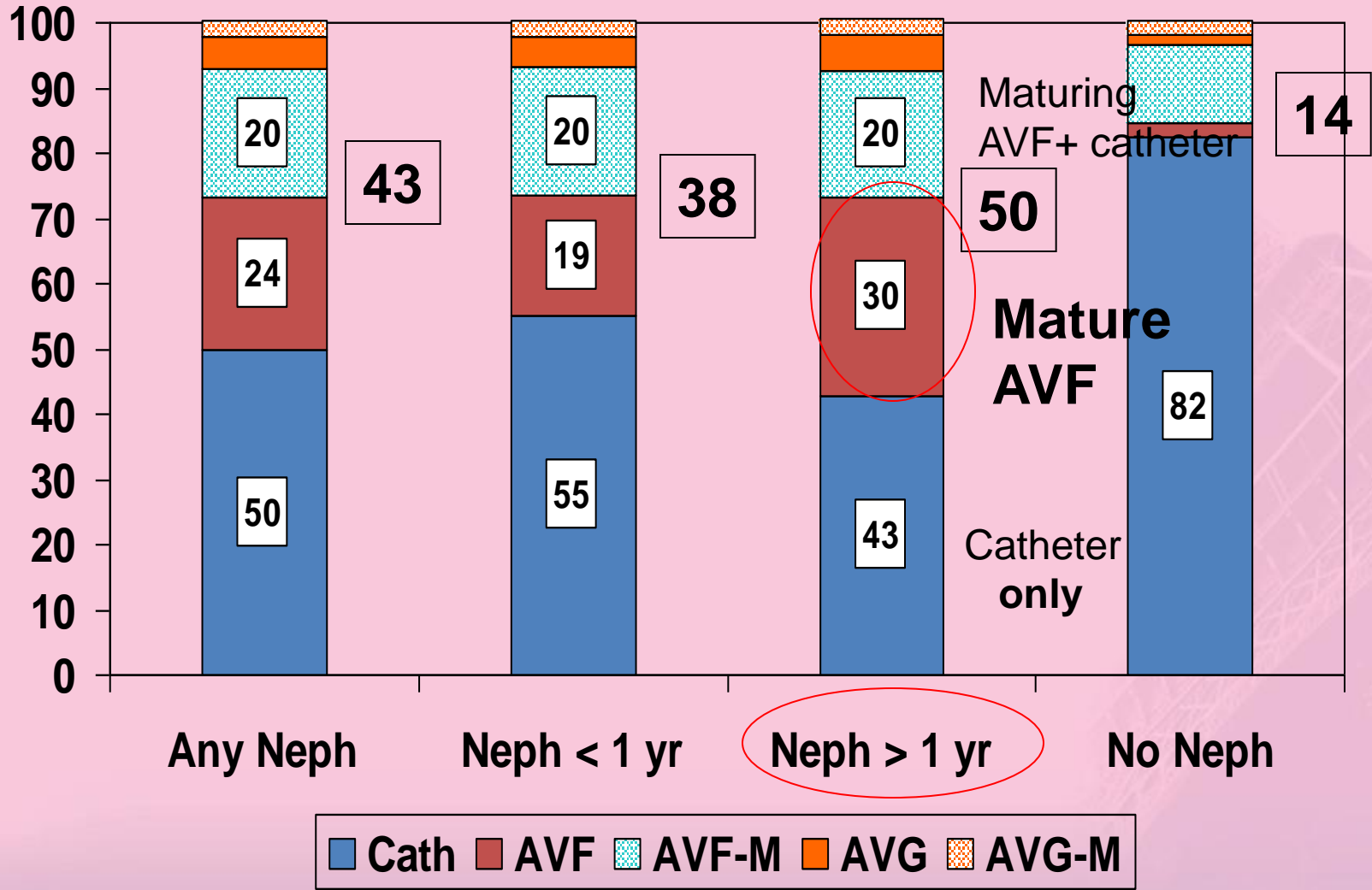


Source: CMS 2728 unpublished data. Courtesy of Dr. Eggers

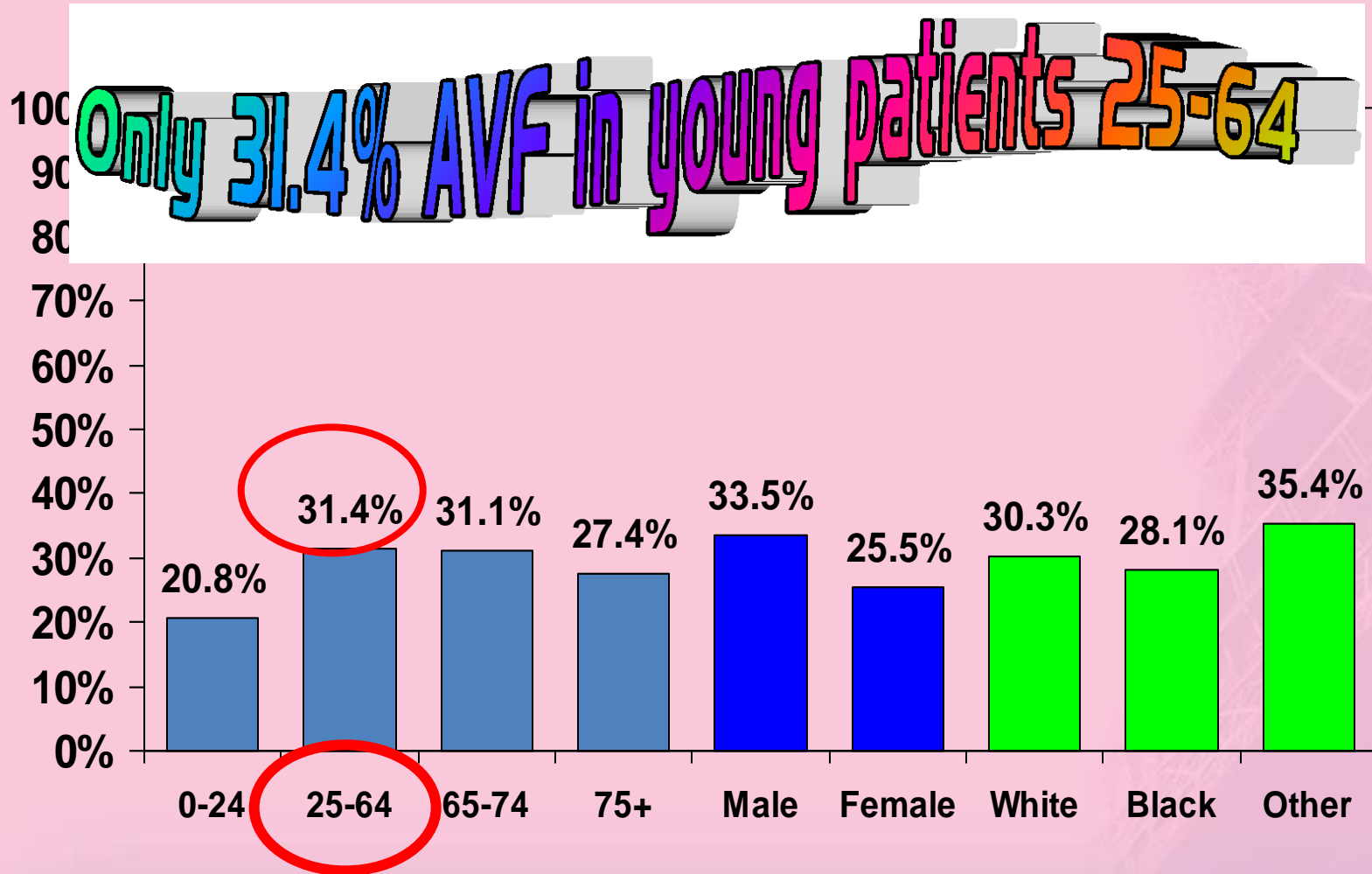
# Vascular Access at Initiation of Dialysis: 2008

## by pre ESRD Nephrology Care

### USRDS - 2010 ADR



# AVF at first Dialysis **or** Maturing AVF by demographic groups



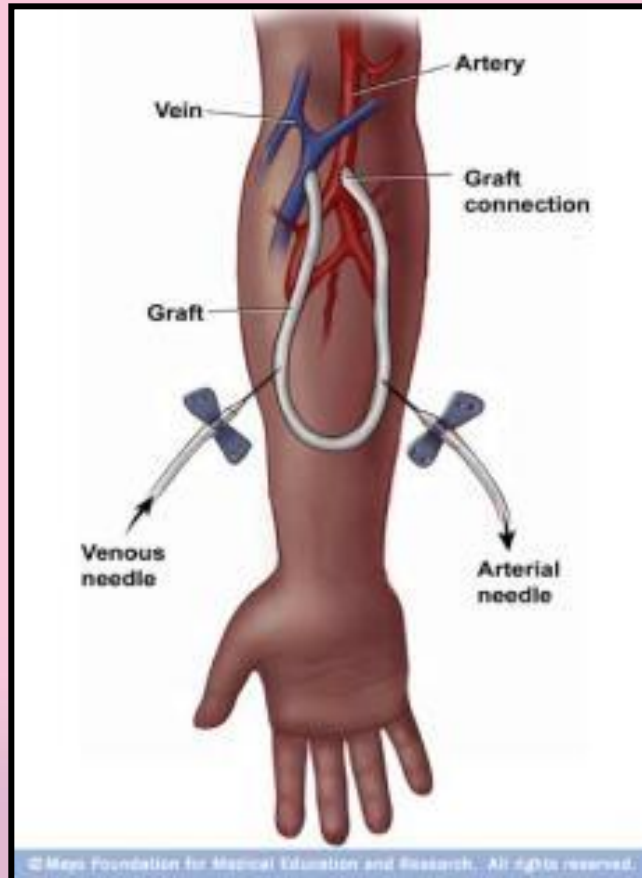
Source: CMS 2728 unpublished data

Paul W. Eggers, PhD  
NIDDK

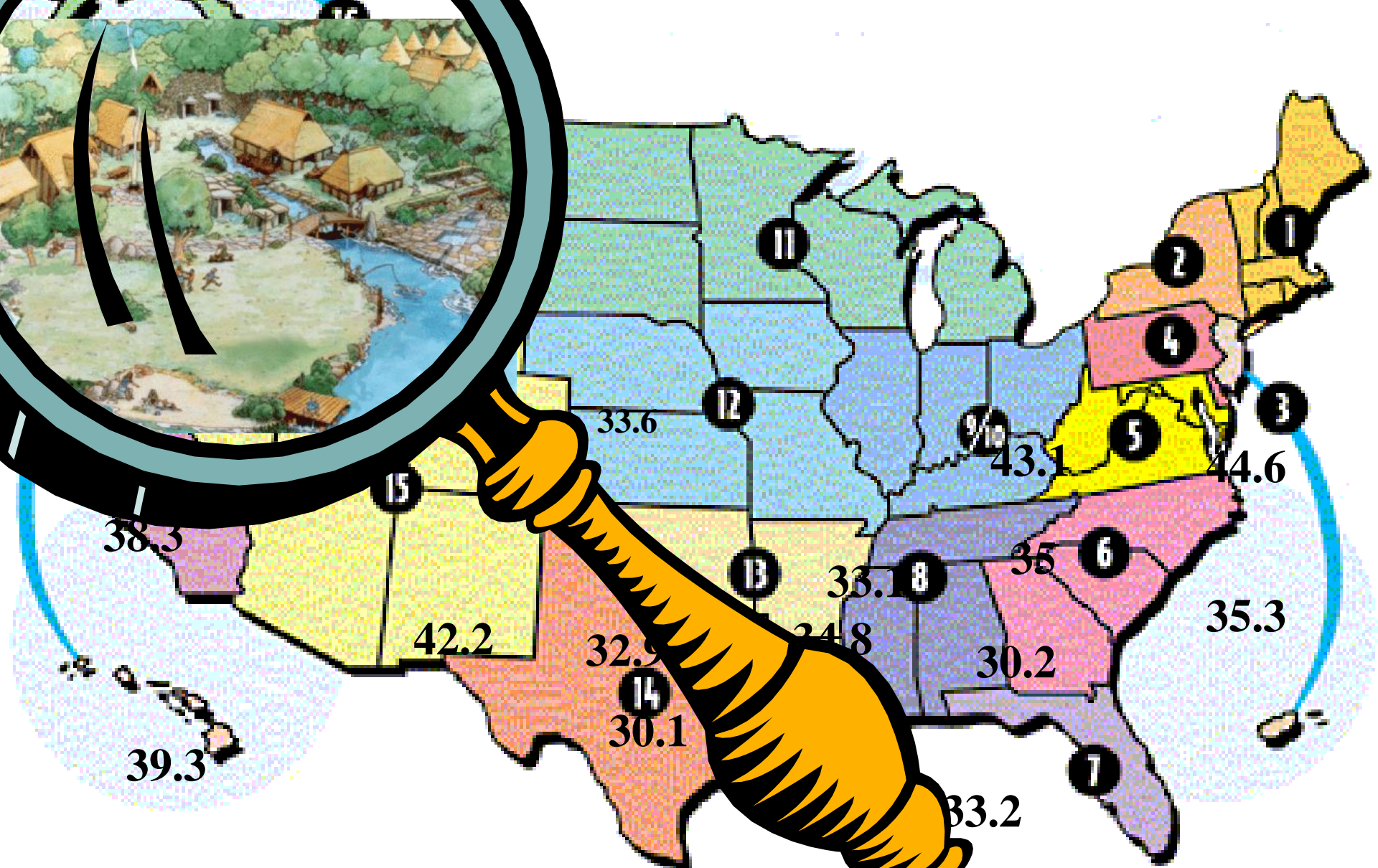
[www.cacvs.org](http://www.cacvs.org)

# “Toute” l’Amérique est-elle occupée par les pontages/catheters?

## “Toute?”







**NON, une partie de l'Amérique résiste toujours et encore aux Envahisseurs**

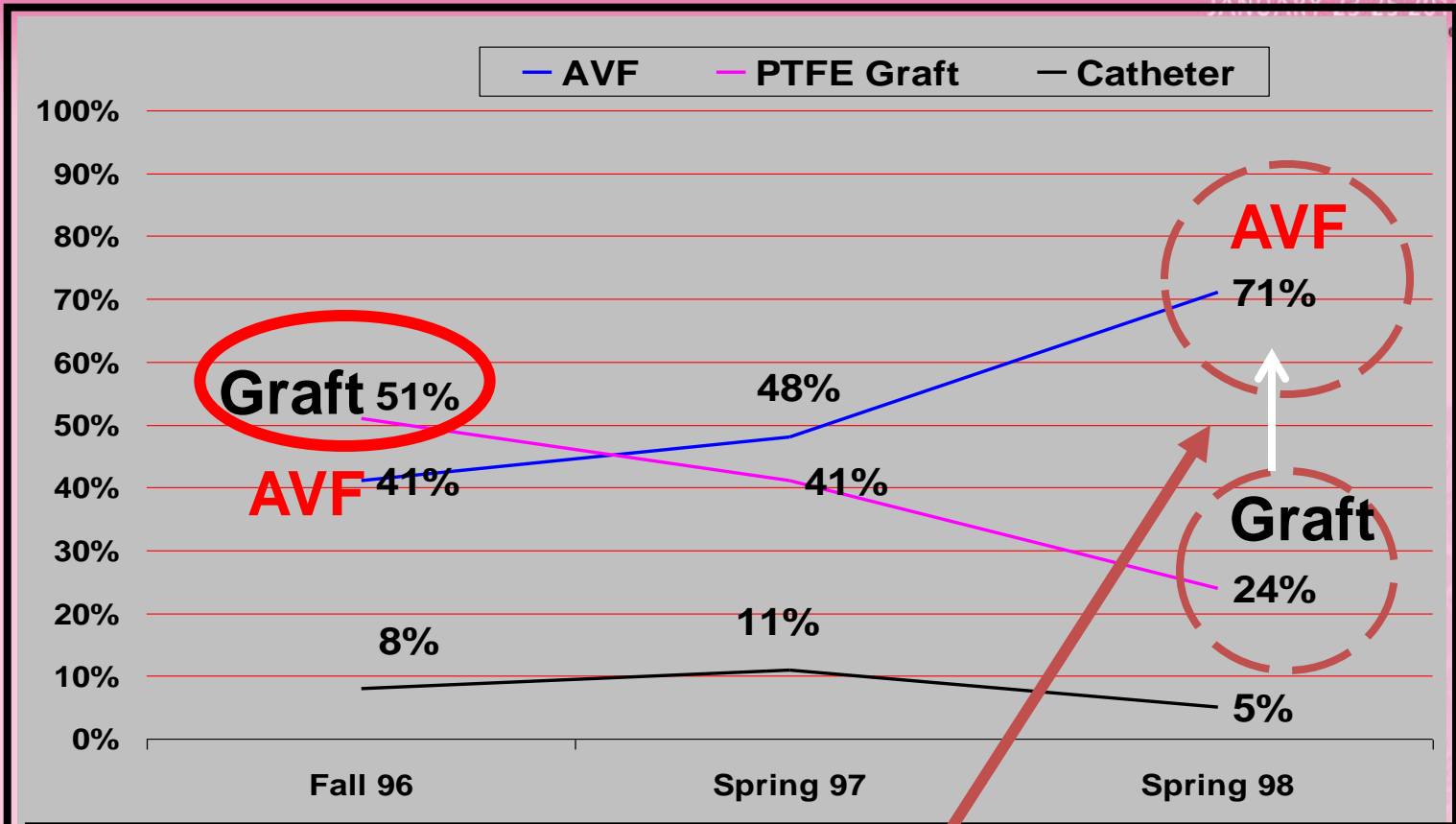


Ma fille, Mai



Le village Olympia  
Pacific Northwest Renal Network

# Replacing Grafts with AV Fistulas



AVF prevalence increased to 71% by replacing failing grafts with AVF

All the embedded grafts were converted into secondary AVF



1999: **+90% AVF in Olympia**

How could a **small town doc** help shatter  
the national 40% AVF **psychological barrier**  
to reach 90% AVF?

*Comment briser la barrière psychologique nationale de 40% FAV et  
changer la norme nationale?*

against the **graft experts**  
in control of NKF-DOQI, university, medical journals?

# Lobbying on Nephrology Internet

*le début de l'Internet Néphrologique*



# **Nephrol: 1500 Nephrologists!** **in a Professional Dialogue**

**cyberNephrology: A New Opportunity for the Profession**  
**A Tutorial and Interactive Seminar**

**Michele L. Hales**  
**University of Alberta**  
**Edmonton, AB CANADA**



**November 24, 2000**



**Bologna, Italy**

[www.cacvs.org](http://www.cacvs.org)



Friendly discussions with **grafts experts** on Nephrol

amicales

The voice of wisdom helped win the arguments

la voix de raison a souvent gagné



**NSA** apparently had surveyed our Internet discussions





A regional branch of **Medicare Northwest Renal Network 16** le directeur a suivi les débats  
(covering 5 NW states of the Union)

Adopted the Olympia Multidisciplinary Team Strategies

Our team leading  
**Pilot Vascular Access Quality Improvement-NWRN 2002**

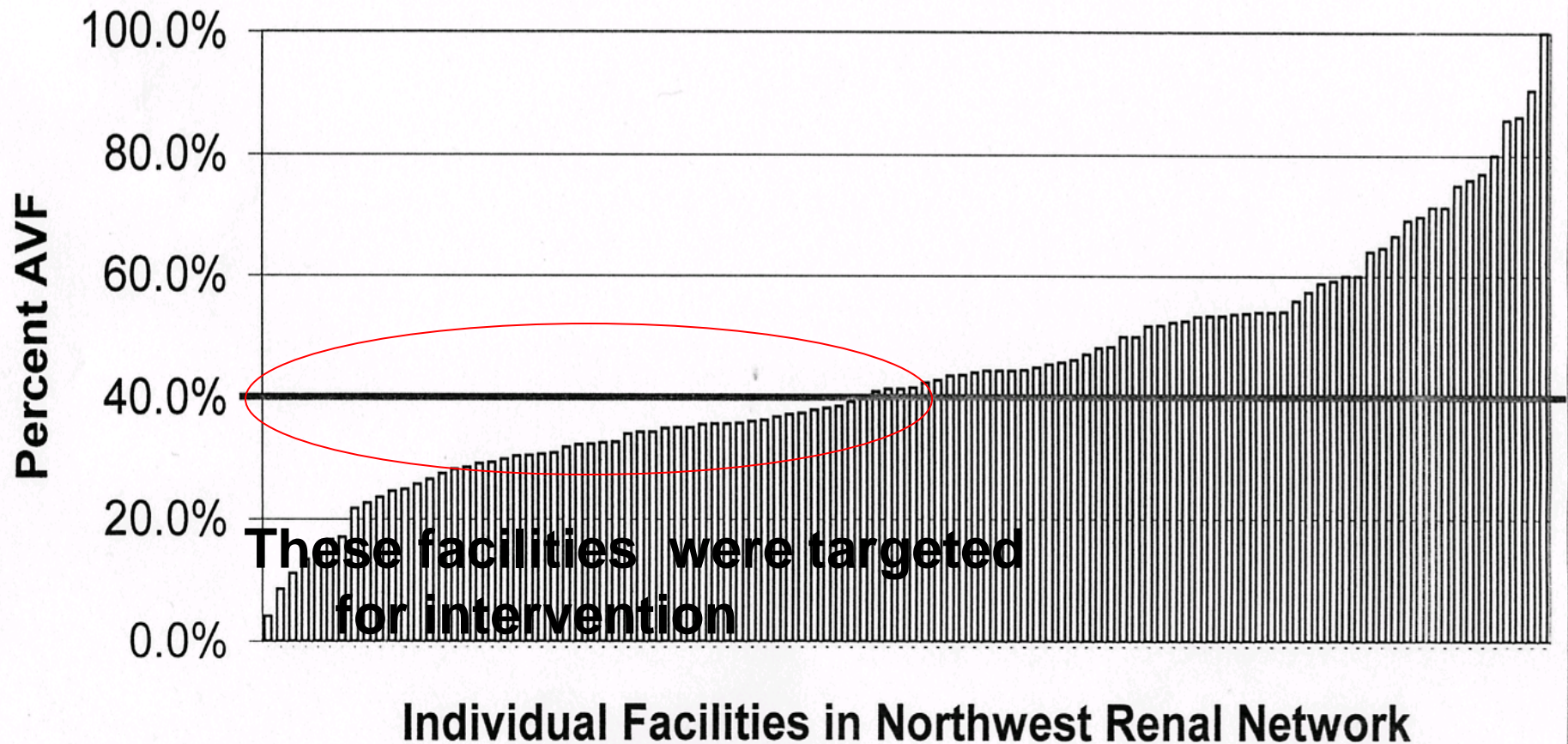
projet pilote des abords vasculaires

# % AV Fistula Use in Hemodialysis Patients

(based on 2001 CDC Survey)

**Current Quality Improvement Project is targeting facilities with <40% AVF use**

Half of all facilities <40% prevalent AVF



# ACTION

## 2002 NW Renal Network 16 QIP

*4 regional half day workshops titled*  
**BACK TO THE BASICS: Increasing AVF use**

TARGET AUDIENCE: Nephrologists, Surgeons, radiologists and Vascular Access Managers from

II **Initial Goal: 40% AVF** HD patients

providers to promote creation of AVF and reduce catheter use

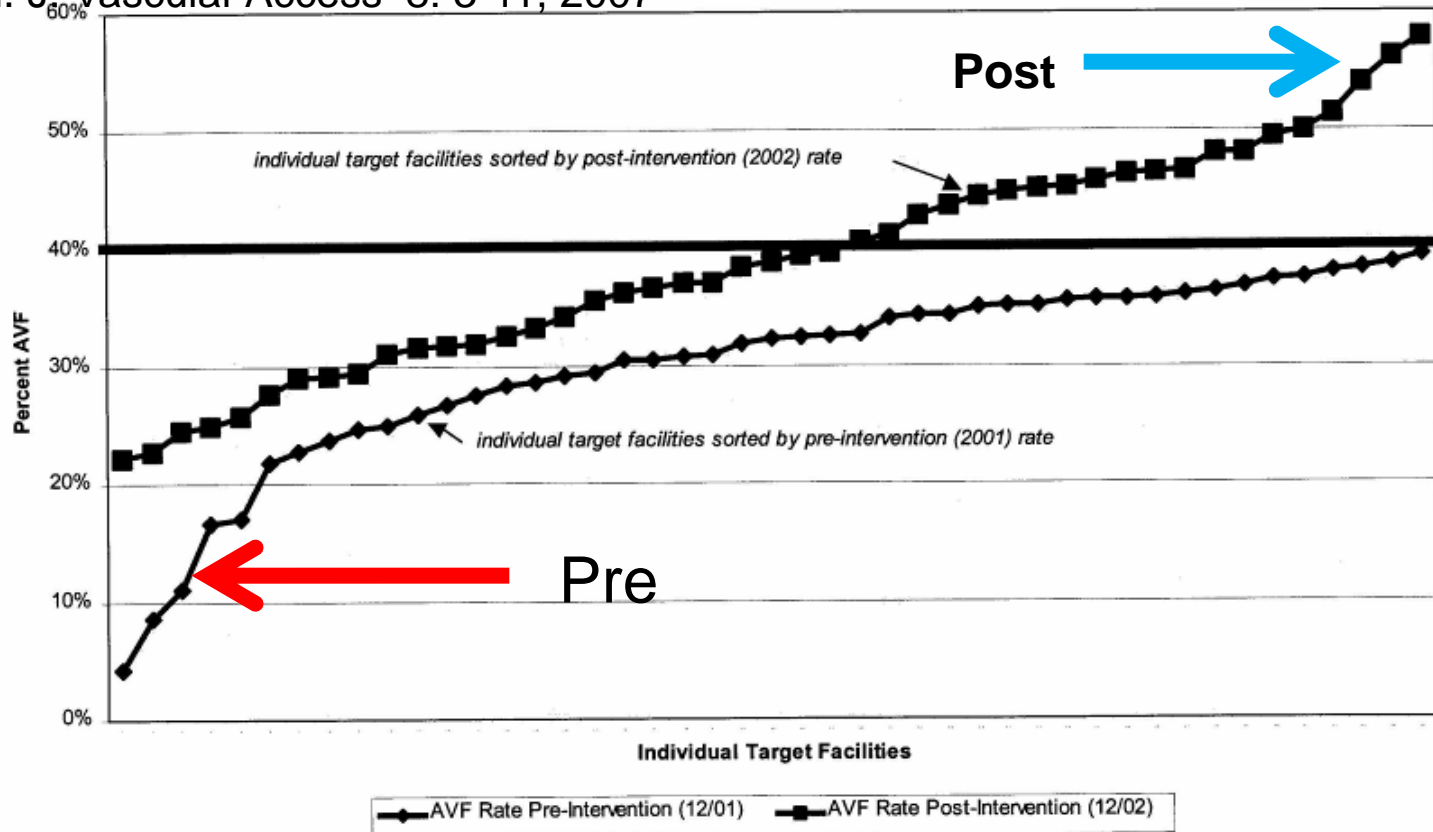
**Multidisciplinary vascular access** approach:

**early referral**, routine vessel mapping,  
early surgery, AVF cannulation training etc

# RESULTS

**Intervention facilities <40% AVF:**  
43 Facilities, 2869 HD patients

Vo Nguyen. J. Vascular Access 8: 3-11, 2007



Pre-Intervention :

**31.4%:** (99.9% confidence limits 28.6 to 34.2%)

Post-Intervention (1 year): (taux cible goal achieved within 1 year)

**40%** (99.9% confidence limits 37.0 to 42.9%)

(8.6% increase  $p < 0.001$ , chi square)



*Résultat concluant* du Projet Pilote  
**National** Vascular Access Improvement Initiative-  
launched following year-2003 by **Medicare**

# Change Concepts

1. Routine CQI review of vascular access
2. Early referral to nephrologist
3. Early referral to surgeon for “AVF only”
4. Surgeon selection
5. Full range of appropriate surgical approaches
6. Secondary AVFs in AVG patients
7. AVF placement in catheter patients
8. Cannulation training
9. Monitoring and surveillance
10. Continuing education: staff and patient
11. Outcomes feedback

Member of Fistula First **Workgroup 2003**

don't j' étais *membre-Groupe de travail*

Rédaction les stratégies nationales basées sur le **Bon Sens**,  
et l'évidence clinique

# IMPACT

## Fistula First

Launched 2003: **first goal 40%** AVF nationwide

2004: AVF rose to 40%

FFBI new (**second**) goal: **66%** AVF

2006 **DOQI** raised AVF goal to **65%**



# POLITICAL **IMPACT**

## Fistula First

2010: **Northwest** Renal Network reached **66.4%**

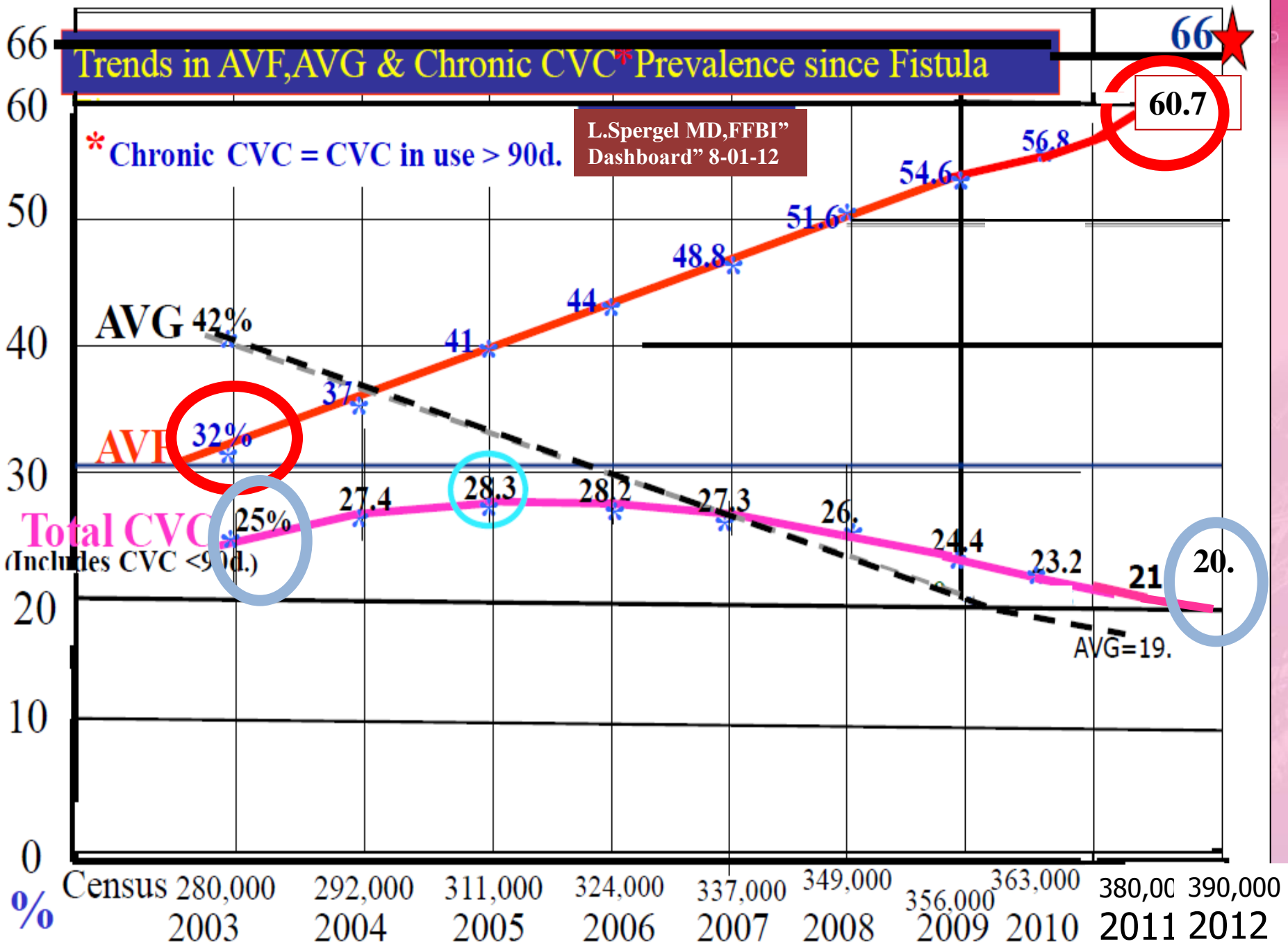
2011 **FFBI** new (third) goal: **68% AVF**

2011: **Northwest** Renal Network reached **68.2%**  
National AVF 60.3%

# Trends in AVF,AVG & Chronic CVC\* Prevalence since Fistula

L.Spergel MD,FFBI"  
Dashboard" 8-01-12

\* Chronic CVC = CVC in use > 90d.



# POLITICAL **IMPACT**

## Fistula First



Has brought changes in government funding policies

Better understanding of vascular access issues

**Patients** dialyzed with **AVF** do **better**, at **lower cost**.

Reimbursement for Vascular Access angioplasty is **reduced**

Reimbursement for AVF surgery is **raised**

Medicare-FF has **raised AVF** goal gradually

*excigent un cible FAV graduellement plus élevé,  
au cours de la décennie*

Dialysis centers with **low AVF** use is **penalized** financially

*s'ils ne changent pas de comportement*

Improvement in AVF is now unstoppable

Grass root action mouvement populaire

Federal government's policy

# CONCLUSION

**AVF use is rising** in the US,  
**Catheter use is declining**  
despite an elderly, sick ESRD patients population  
*progrès en abord vasculaire est possible malgré...*

Higher AVF use (up to **80-90%**) is possible  
in the USA

Exceeding DOQI A-V Fistula Target at the Northwest Renal Network 16.

Is **80-90%** A-V Fistula rate achievable?

V Nguyen, L. Ball. **Seminars of dialysis** 2014

*Feuille de route pour arriver a 80-90% FAV*

# CONCLUSION

## LA CRISE



In the era of **declining national health care budget**

Providers must be involved participant dans les débats  
In **National health care politics**

Citizen duty *devoir de citoyen* to fight financial gaspillage  
and to promote better care  
*promouvoir meilleure qualité de soins*

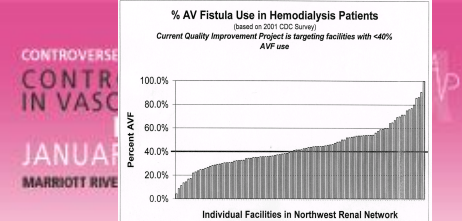
***BETTER CARE= LOWER COST***

Create financial incentives to favor AVF creation

*La politique financière devrait supporter la création des AVF* [www.cacvs.org](http://www.cacvs.org)

# National Registry

Une registre nationale est importante:



Data base of vascular access in use-*banque de données*  
**Cost analysis**, complications, mortality of dialysis

Detect, define problems

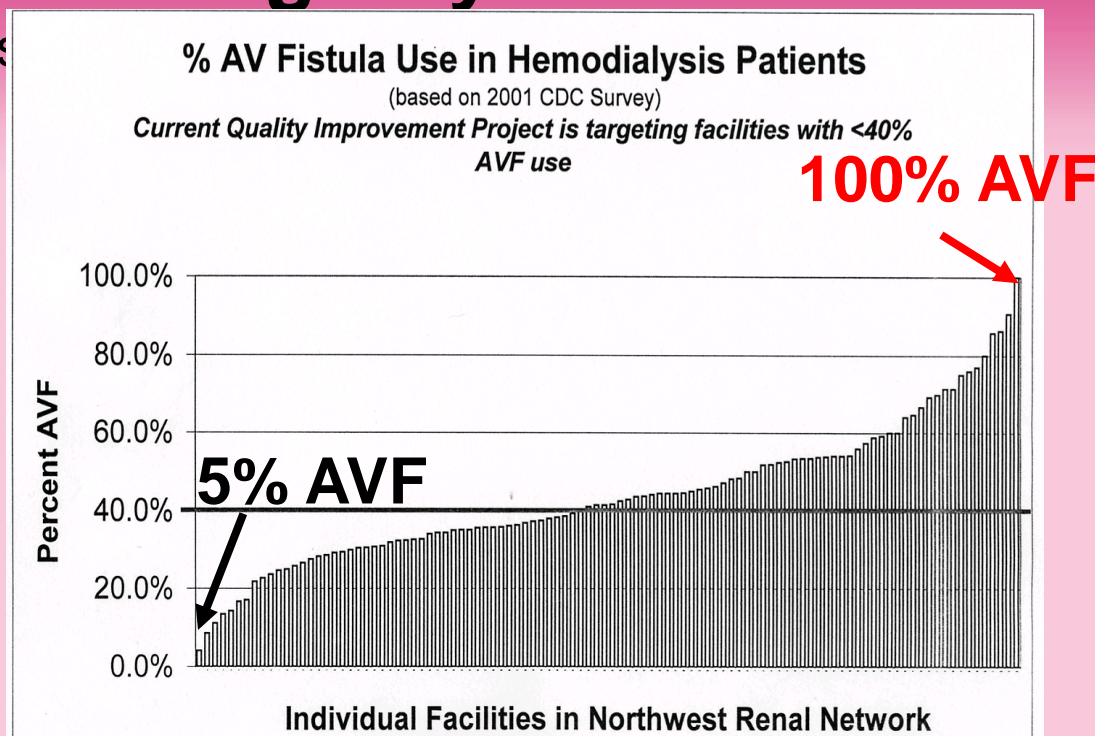
Formulate solutions-future health care policy  
*planification de la politique nationale de santé*

Set goal *établir le but*

Monitor progress- *mesurer le progrès*

# National Registry

Une regis



**CQI** (Continuous quality Improvement) principle:  
compare outcomes between providers

*Amélioration Continue de la Qualité: comparant le résultat  
entre les différents centres*

Major tool to **change behavior**- for Outliners  
*Mauvais résultat d'un centre, comparé avec ses pairs  
souvent stimule un changement du comportement thérapeutique*

# Ouf, c'est la fin

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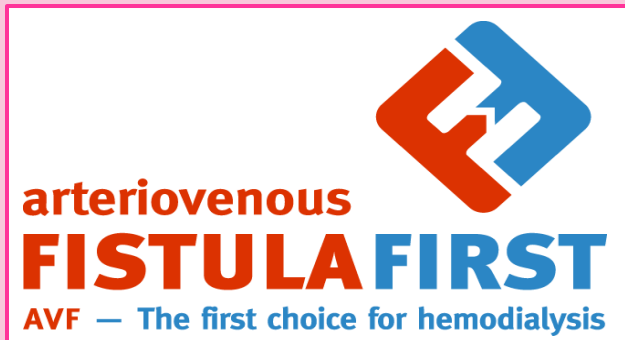
**Questions? please email me at your own risk  
vdnguyen9@gmail.com**

[www.cacvs.org](http://www.cacvs.org)



# FFCL

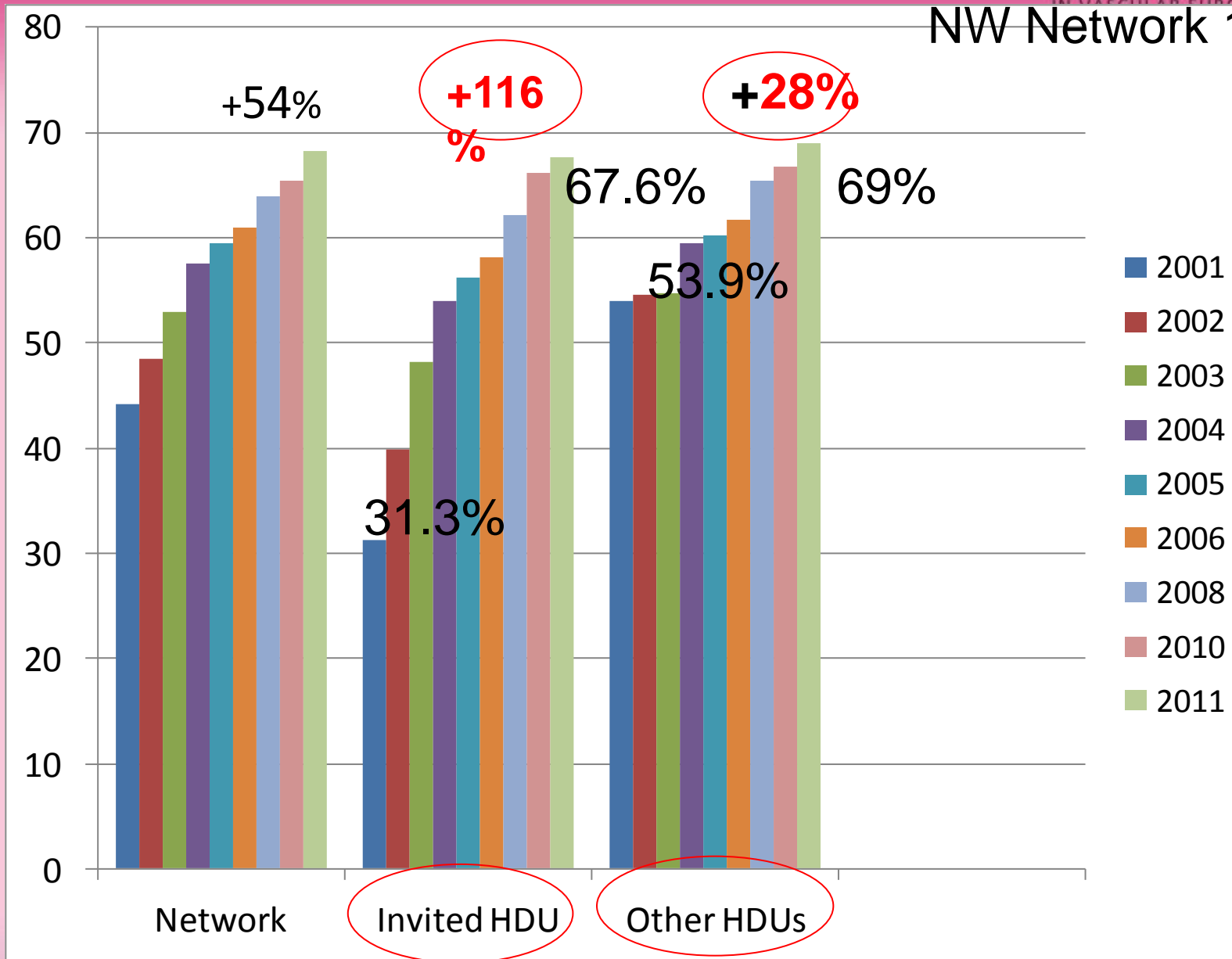
## Fistula First



## Catheter Last

# AVF and Catheter Rates 2001-2011, by Facility Group

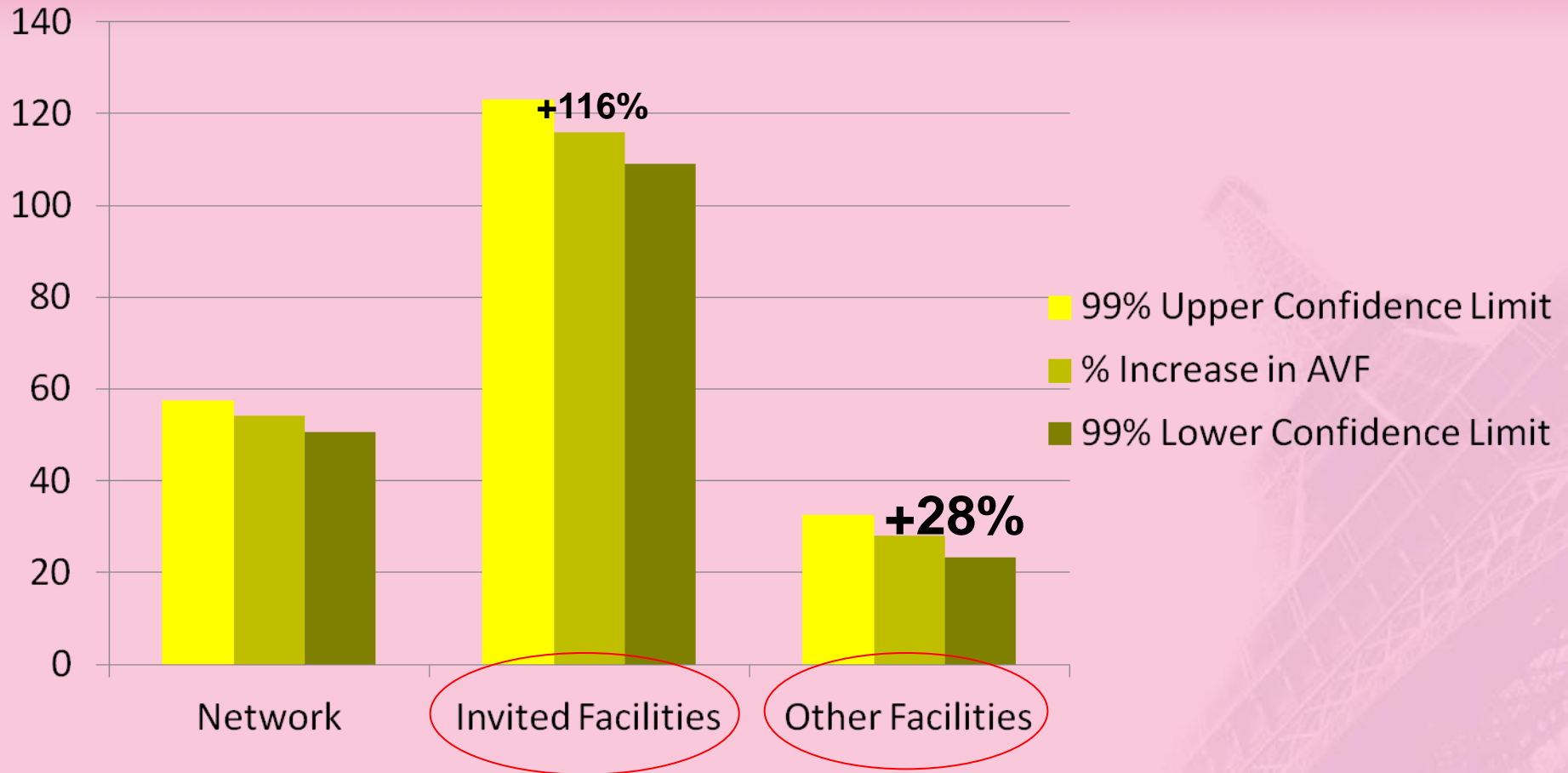
NW Network 16 10 year



# Percent Increase in AVF Rate 2001-2011, by Facility Group

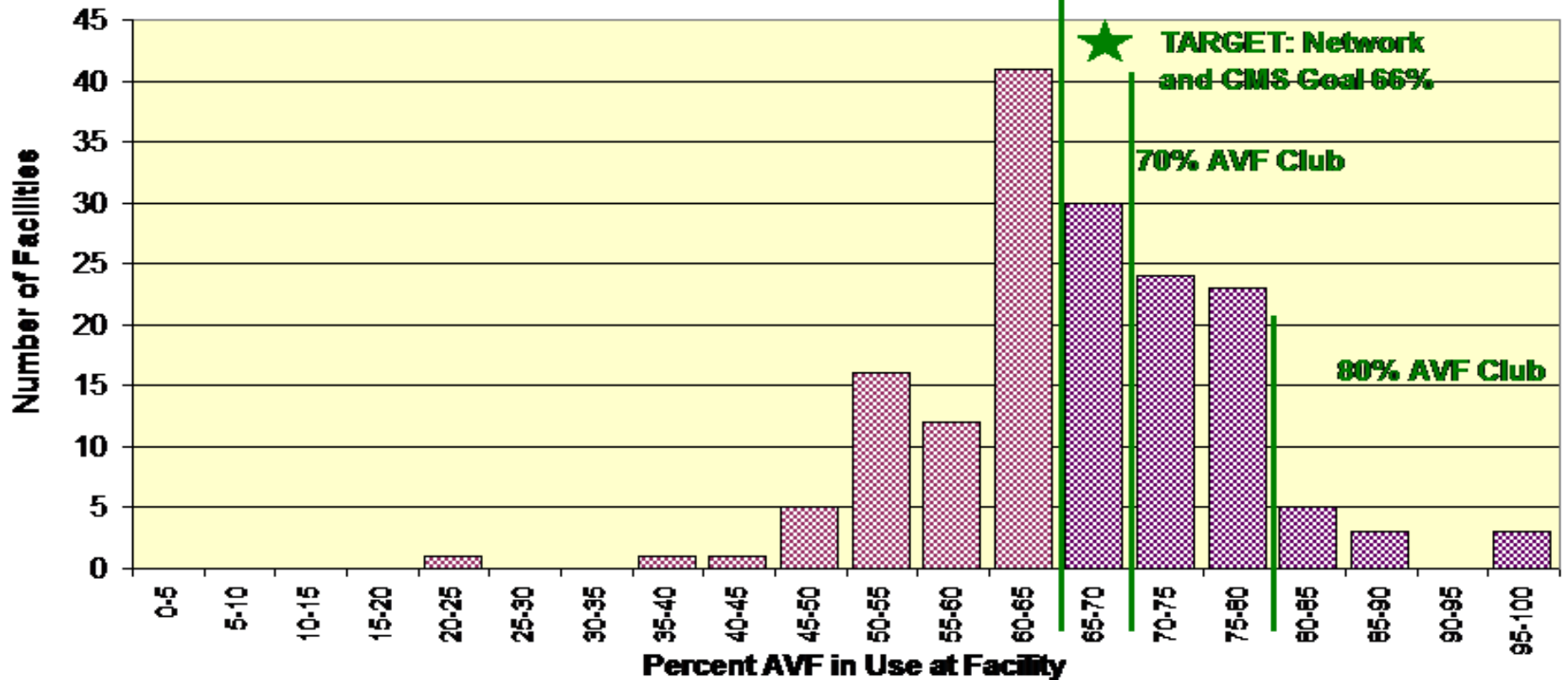
10 years progress

CONFERENCES ET ATeliers EN CHIRURGIE VASCULAIRE  
CENTRE OF INTERESTS & GOALS  
IN VASCULAR SURGERY  
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# Histogram of Facility AVF Rates, December 2010

AVF-in-Use, Prevalent Patients



20-60% AVF

Still too many **underperformers**  
(future targets for intervention)

Majority HDU

60-80% AVF

**A dozen**

**80-100% AVF**

2011: **Northwest** Renal Network reached **68.2%**

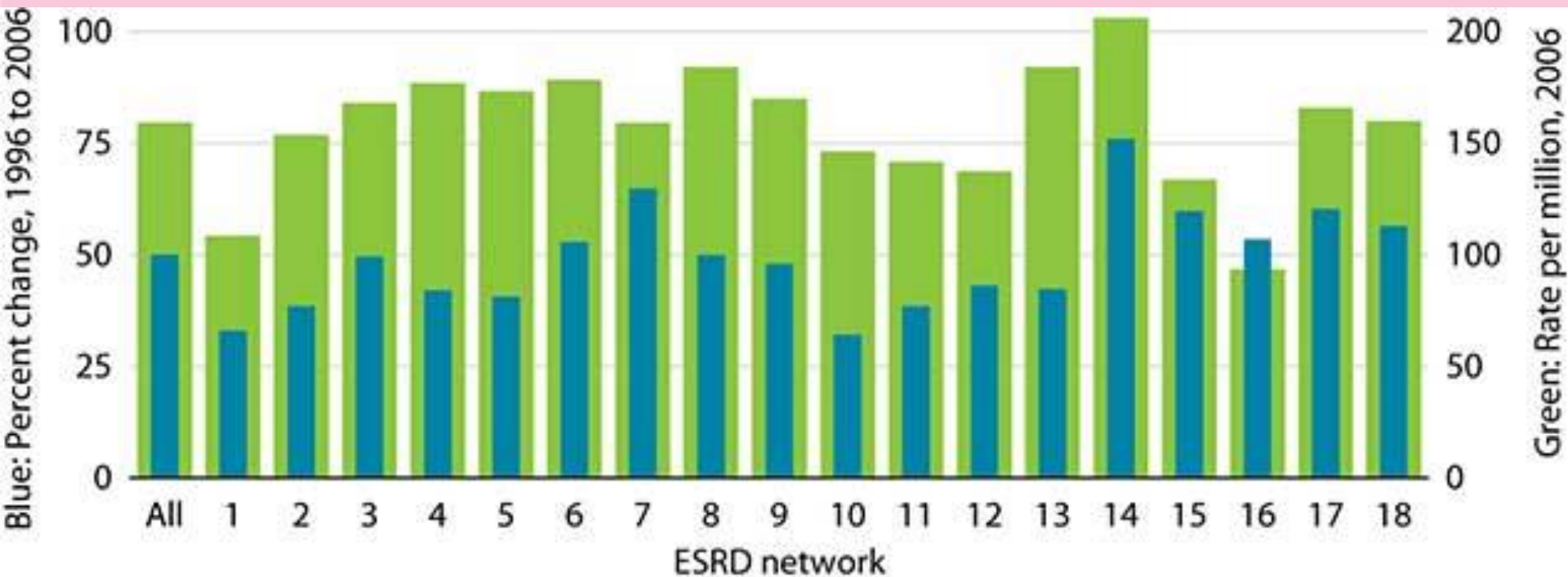
Why?

NWRN

Vascular Access Quality Improvement 2002-2011

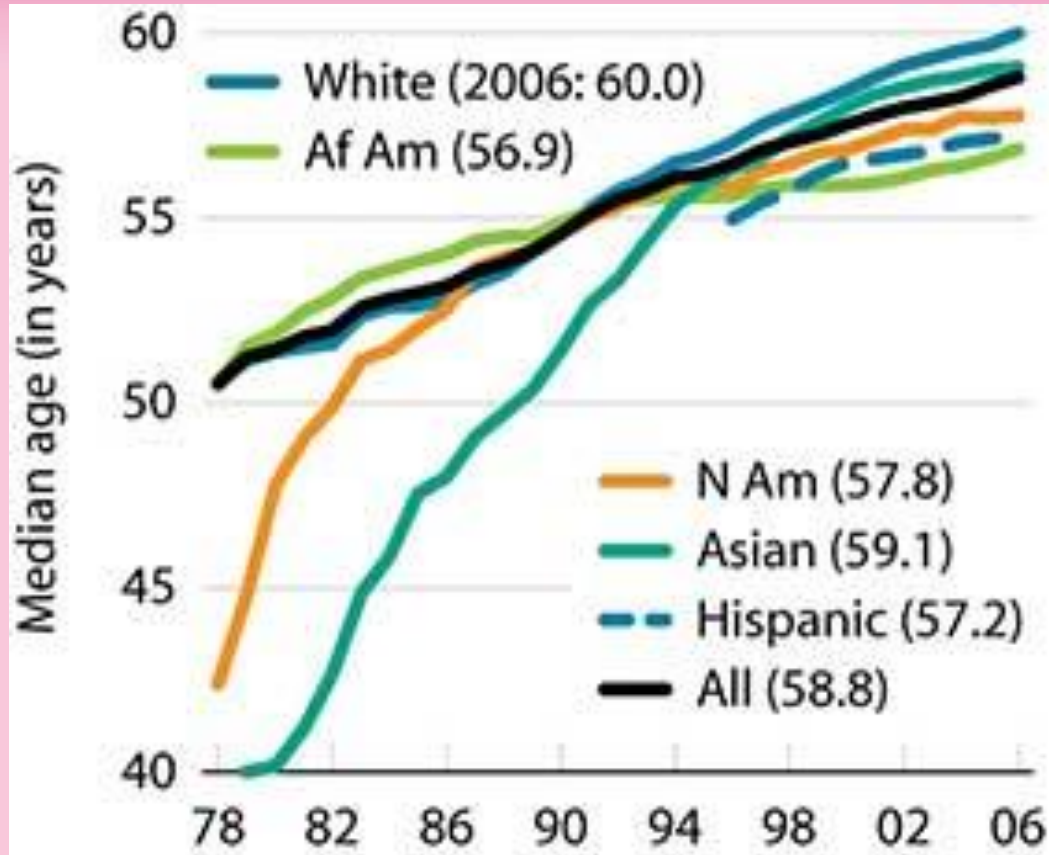
**Lobbying** for appropriate health care policies  
online, in literature, in national policy making body

# More *diabetes* : 50% increase in 10 years



**Percent increase in diabetic patients on dialysis among 18 renal networks**

# OLDER







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# Expert advice on the use of AV Grafts

AVF maturation risk calculation formula  
(J Am Soc Nephrol 17: 3204–3212, 2006)

# AVF maturation risk calculation formula

## Clinical use of the scoring system

VARIABLE	POINTS	SCORE
Age >65	+2	
Peripheral vascular diseases	+3	
Coronary artery disease	+2.5	
White race	-3	
Baseline score		+3
Total		

The **higher score**, the **higher risk** of AVF failure  
The total score could range from 0 to 10.5.

# AVF maturation risk calculation formula

SCORE	RISK CATEGORY	CLINICAL APPLICATION
< 2.0	Low risk: 25%	
2.0 to 3.0	Moderate risk: 35%	
3.1 to 6.9	High risk: 50%	
<b>&gt;7.0</b>	<b>Very high risk: 70%</b>	<b>AV Graft</b>

**Very high risk score >7.0: 3 risk factors**

**White:** Old >65 + PVD + Coronary artery disease (CAD)

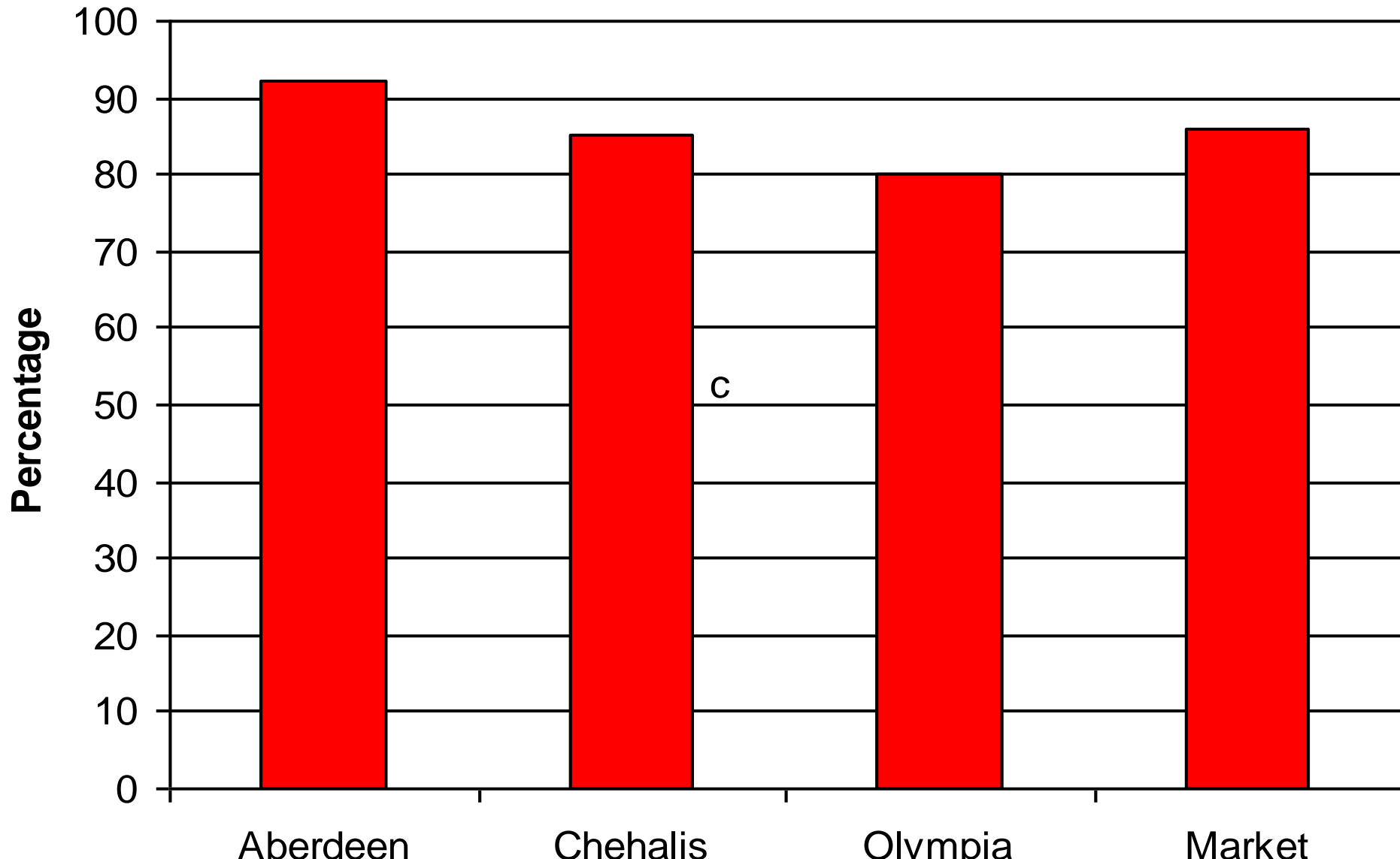
**Black:** Score 7: only **2** risk factors

Old >65 + PVD

Old >65 + CAD

PVD + CAD

Renal Care Group Northwest  
Facility/Market 2003 Fistulas





In late 1990s- **online Lobbying** to advocate for **90% AVF**  
and to argue against many DOQI guidelines

**NEPHROL** is an unmoderated  
online discussion group and  
*Internet* resource for  
**nephrology** professionals



We stop

d Catheters

Pre-c

## Lobbying at Washington State level

*Problem: Doppler mapping was not reimbursed*

Selection of **good surgeons** for **AVF surgery only**

**Graft surgery** was **better paid** than AVF surgery

Reimbursement for AVF surgery on **welfare/indigent** patients:  
too low

Surgeons refused  
to see these patients

## Few experts still preach the virtue of AV Graft pontage

When should a patient receive an av **graft** rather than a fistula, quand le pontage serait-il préférable?

Professor Michael Allon-Division Chief  
Semin Dial. 2013 Jan-Feb;26(1):6-10.



The potential for **Graft First** in Selected Patients

Professor Michael Allon-Division Chief

Nephrology Times

September 2011, page 3



## US National Data

Even after **12 months of nephrology care**  
30% usable AVF

Total **catheter 70%**  
43 % catheter **only** (no AVF/AVG)  
20% catheter with maturing AVF–

Is it because Americans are too old, too sick?



## Nephrologist- **owner of AVF house**

Absentee landlord propriétaire absentéiste

Don't know sais pas

Don't care- m'en fiche