

Evidentiary Priorities in Diabetes, Kidney and Urologic Disease

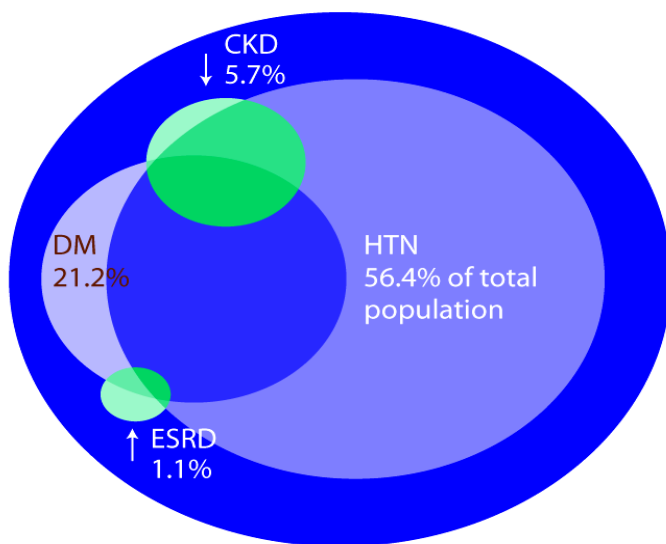
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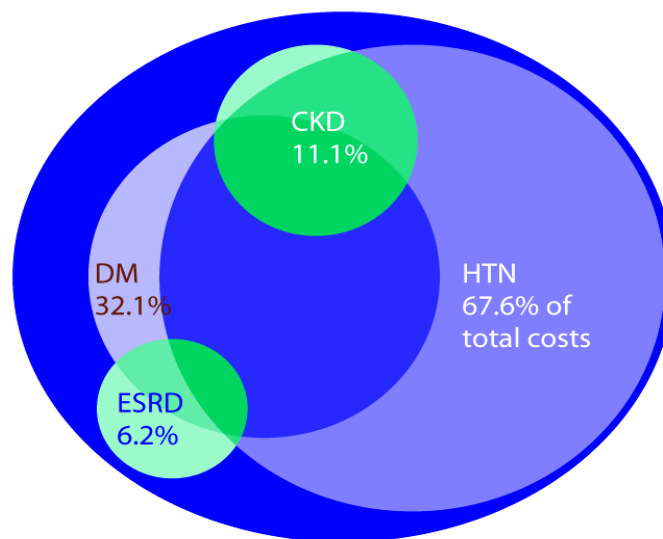


Distribution of Medicare Patient Counts & Costs for HTN, Diabetes, CKD, & ESRD

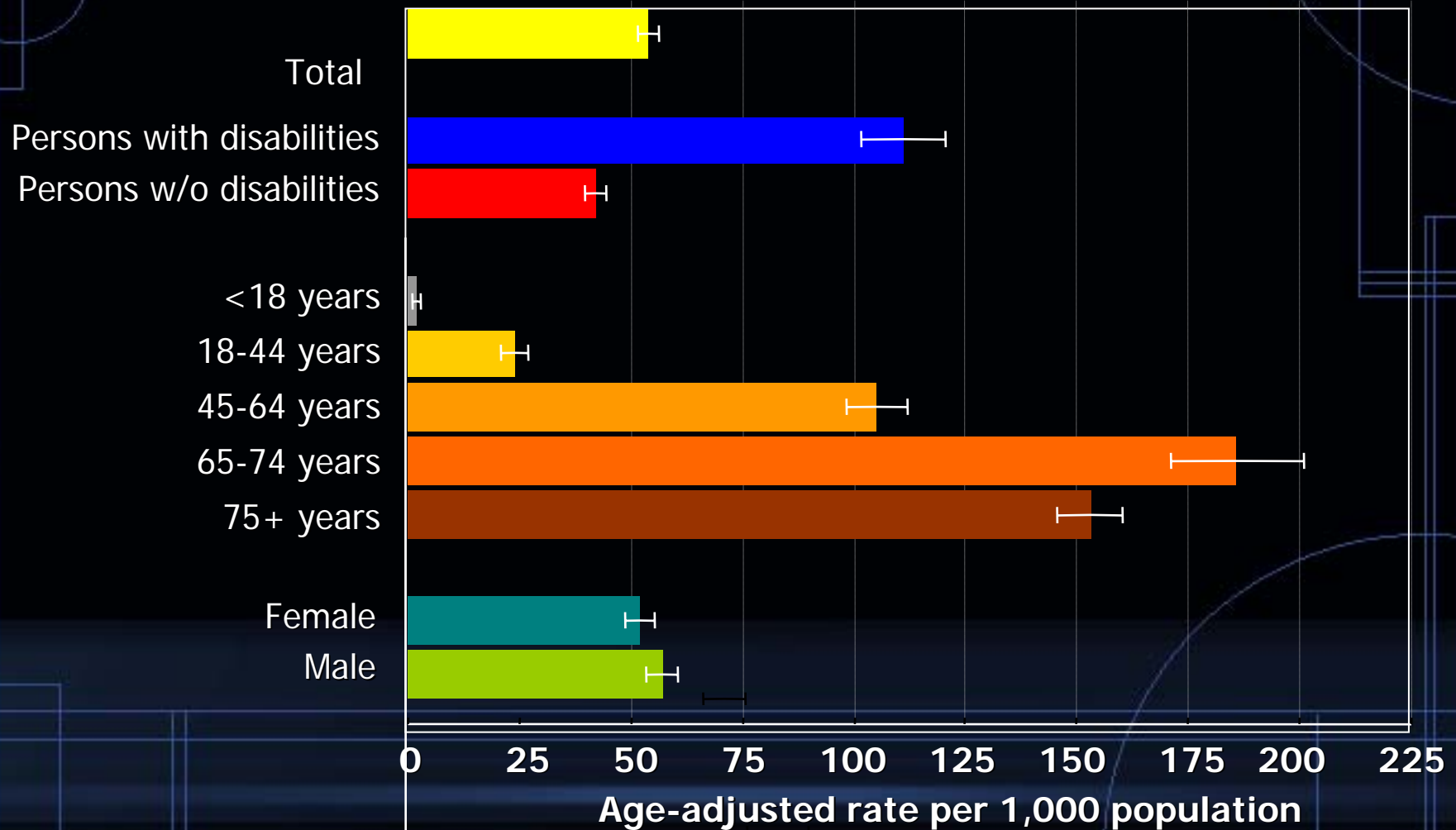
Population, 2003,
age 65+ & disabled
(n=32,528,167)



Costs, 2004 (patients surviving
to end of 2003; \$222.9 billion)



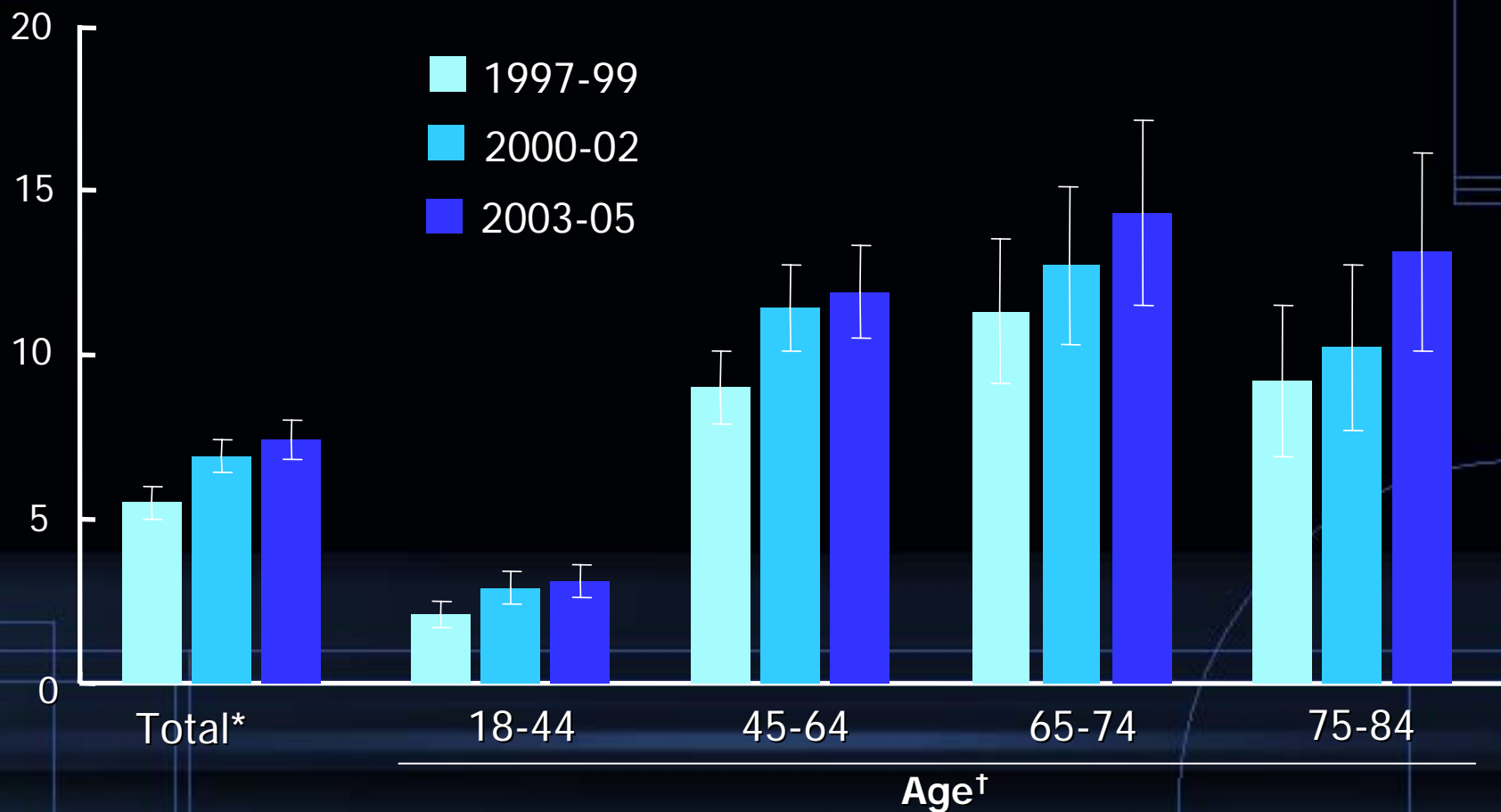
Prevalence of Diagnosed Diabetes 2005



SOURCE: National Health Interview Survey (NHIS), CDC, NCHS.

New Cases of Diabetes

Age-adjusted rate
per 1,000 population



SOURCE: National Health Interview Survey (NHIS), CDC, NCHS.

Progress in Prevention: The DPP



The
Diabetes
Prevention
Program
Study

Critical finding: Prevention is achievable for many people at-risk for type 2 diabetes

- Lifestyle modification intervention lowered risk of diabetes by 58%.
- Metformin lowered diabetes risk by 31%.

National Diabetes Education Program (NDEP) Campaign:



Campaign Goal: translate DPP results into practice

- Provides DPP-proven tools for lifestyle change to those at high risk of diabetes and their health care providers
- Sponsored by NIDDK, CDC and 200 partners

Information Gaps: Obesity Treatment and Diabetes Prevention

- Identification of those at risk for diabetes
 - Development of algorithms based on data from longitudinal studies or CMS data
- Cost effective behavioral therapy
 - Group delivery, internet, community setting
- Bariatric surgery
 - Impact of timing, procedure, level of obesity on risk, benefit, cost, diabetes
- Weight loss medications
 - Effect on hard outcomes

Progress in Prevention: DCCT/EDIC



DIABETES CONTROL & COMPLICATIONS TRIAL



Critical finding: Complications of type 1 diabetes can be prevented by tight control of glycemia.

- Reduction in risk of complications:
 - Eye disease - 76%
 - Kidney disease - 50%
 - Nerve disease - 60%
 - MI, stroke or CVD death - 57%
- Comparatively short-term glycemic control has long-term benefits

NDEP Campaign:



Campaign Goal: translate DCCT/EDIC results into practice

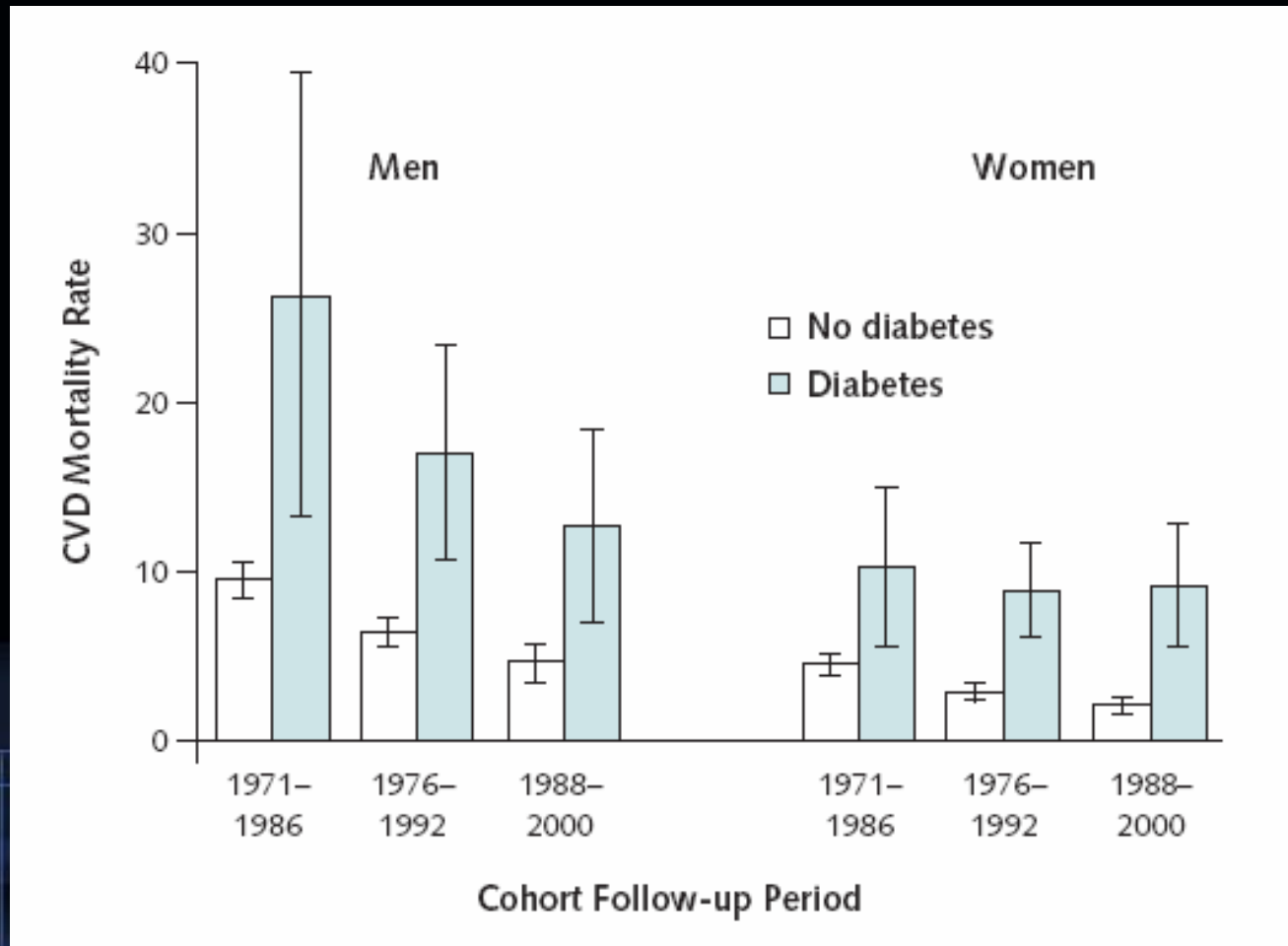
- Educational materials for controlling blood sugar
- Sponsored by NIDDK, CDC and 200 partners

Information Gaps: Glycemic Control

- Comparison of treatment algorithms with long term outcomes
 - Long term benefit from early more aggressive therapy to preserve beta cell function
 - Head to head comparisons of therapies with CVD and other hard outcomes
- Optimal A1c goals in patients with limited life expectancy with QOL and functional outcomes
- Maximize benefit from self blood glucose monitoring—which patients, when, how to use to change therapy

Age-adjusted Cardiovascular Disease Mortality Rates Among the U.S. Population Age 35 to 74

With and Without diabetes, by Cohort and Sex



Information Gaps: Comprehensive Care

- Improving BP and lipid control in the primary care setting
- Increasing use of low cost effective therapies (*e.g.* aspirin, influenza vaccinations) and developing improved approaches to monitoring utilization
- Enhancing adherence in patients on many medications (polypill, blisterpack?)

Information Gaps: Amputation Prevention

- Compare approaches to prevention of foot ulcers
 - Therapeutic shoes and socks
 - Identification and education of high risk patients
- Compare approaches to healing of ulcers
 - Offloading
 - Methods of debridement
 - Biologics
 - Indications for angiography and revascularization
- Predictors of ulcer healing

Information Gaps in CKD

- Optimal strategies to slow progression of CKD and associated CVD in primary care setting
- Early placement of appropriate vascular access
- Optimal timing for initiation of dialysis (markers of uremia other than GFR)
- Reducing CVD risk in ESRD patients
- Utility of pre-transplant evaluation for CVD

Medicare Annual Expenditures for Urologic Diseases

<i>Condition</i>	<i>Annual Cost</i>
Adult UTI	\$1,436,700,000
Urolithiasis	\$834,400,000
Benign Prostatic Hyperplasia	\$776,000,000
Adult Incontinence	\$273,400,000

Information Gaps in Urologic Care

- Guidelines for choosing medical therapy vs. minimally invasive surgery for BPH
- Indications for surgery for female incontinence
- Role of urodynamics in evaluation and treatment of urgency, frequency and incontinence
- Optimal urologic treatment in spinal cord patients
 - Intermittent vs indwelling vs condom catheters
 - Outcomes: cost and morbidity