



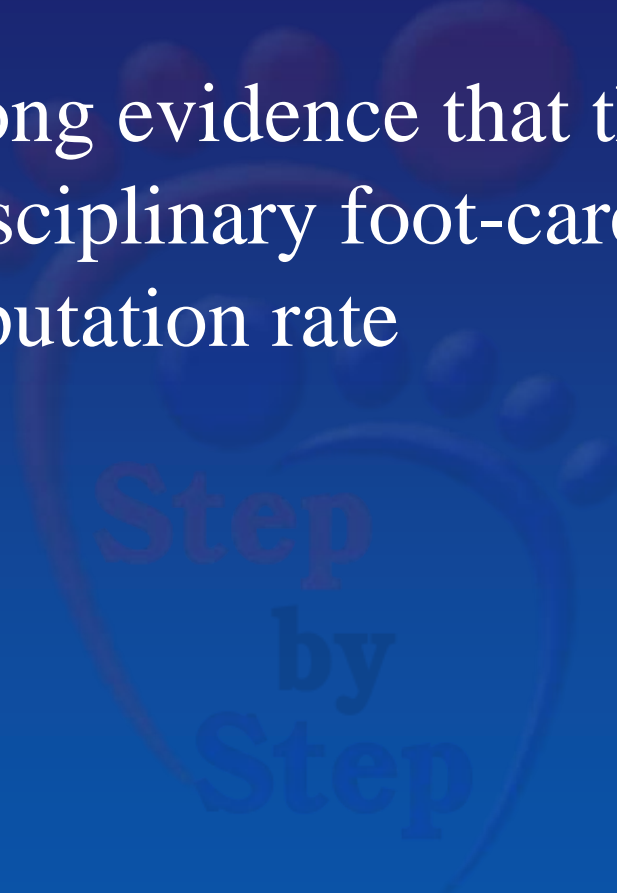
# Multidisciplinaire Diabetic Foot Clinic

## Karel Bakker, MD PhD



# Organisation of footcare

- There is strong evidence that the institution of a multidisciplinary foot-care team reduces amputation rate



# “Improved survival of the Diabetic Foot: The role of a specialized foot clinic”

ME Edmonds, et al  
King's College Hospital, London

Q J Med. 1986 Aug;60(232):763-71





# Multidisciplinary Diabetic Foot Team

... Dependent upon motivated members ...





# Levels of foot care management

In all countries at least three levels of foot care management are needed:

Level 1 Minimal model: general practitioner, diabetic nurse and podiatrist

Level 2 Intermediate model: diabetologist, surgeon (general and/or vascular and/or orthopedic), diabetic nurse and podiatrist

Level 3 Centre of excellence





# Level of Management 1

- Personnel
  - GP
  - Diabetic Nurse
  - Podiatrist



# Minimal model (1)

Aim	Prevention and basic curative care
Patients	Own population
Setting	General practitioners' office, health centre or small regional hospital
Facilitating elements	Close collaboration with a referral centre





# Level of Management 2

- Personnel
  - Diabetologist
  - Surgeon (general and/or vascular and/or orthopedic)
  - Diabetic nurse
  - Podiatrist



# Intermediate model (2)

Aim	Prevention and curative care for all types of patients and more advanced assessment and diagnosis
Patients	From the regional catchment area of the hospital with possibly some referrals from outside the region
Setting	Hospital
Facilitating elements	<p>Motivated coordinator to inspire team</p> <p>Exchange experience with other centres</p> <p>Staff meetings to discuss diabetic foot patients</p> <p>Active collaboration with other departments within the hospital</p> <p>Active collaboration with extra-mural facilities (GP's, nursing homes, etc)</p>





# Dr Abbas' Foot clinic in Dar



# Level of Management 3

- Personnel
  - Diabetologist
  - Surgeon (vascular, orthopedic)
  - Podiatrist
  - Orthotist
  - Educator
  - Plaster technician
  - Rehabilitation specialist
  - Diabetic Nurse
  - Psychiatrist



# Centre of excellence (3)

Aim	Prevention and specialised curative care for complex cases To teach other centres
Patients	National, regional or even international referral centre
Setting	Usually a large teaching or university hospital
Facilitating elements	Organise regional, national or international meetings Allow providers to visit to improve knowledge and practical skills Active collaboration with other reference centres Active participation in the development of guidelines



# Groepsspirit-teamoverleg

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“A specialized wound-healing center  
concept: importance of a  
multidisciplinary department structure  
and surgical treatment facilities in the  
treatment of chronic wounds “

F Gottrup

Copenhagen Wound Healing Center, Bispebjerg

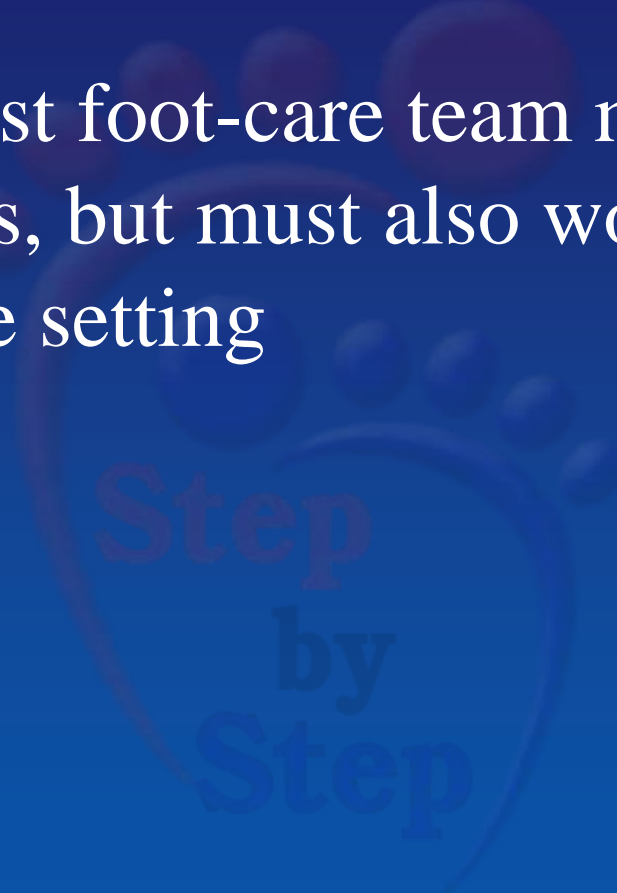
University Hospital

Am J Surg. 2004 May;187(5A):38S-43S



# Organisation of footcare

- The specialist foot-care team must not only treat patients, but must also work in the primary care setting





# Organisation of footcare

- Make each patient a respected member of the team - you cannot succeed without their help



# Education



# Education for “relatives”





# Evaluation



# Realistic time-dependent targets should be set.

## Several outcomes can be measured:

- Amputation rates
- Foot-related deaths
- Numbers of ulcers
- Healing times of ulcers
- Prevalence (a reduction in projected increase, rather than an overall reduction may be a more realistic target)
- Hospital stays related to the diabetic foot
- Cost of providing diabetic foot care

A monitoring system is essential for assessing the impact on foot clinic's outcomes.





# Evaluation of outcomes



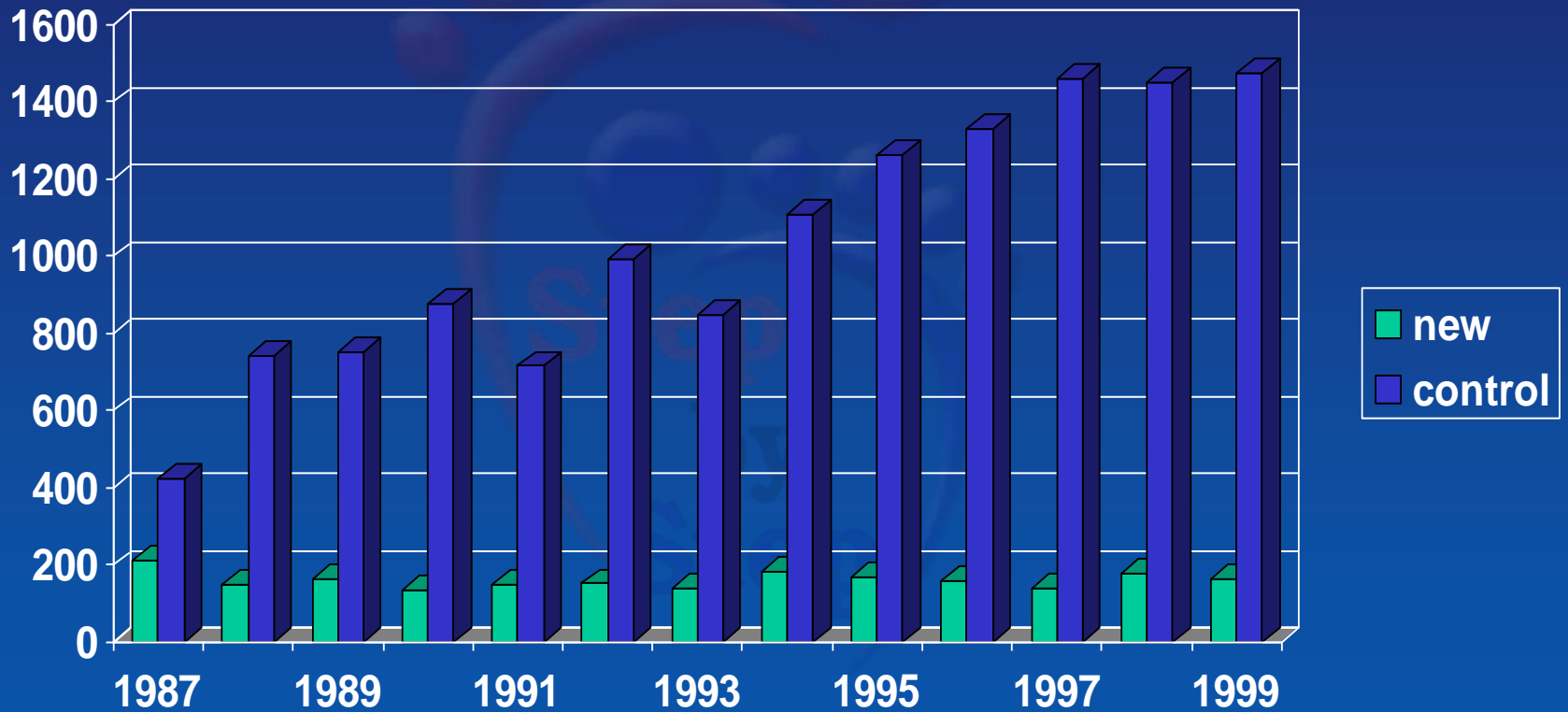
“A specialized outpatient foot clinic for diabetic patients decreases the number of amputations and is cost saving”

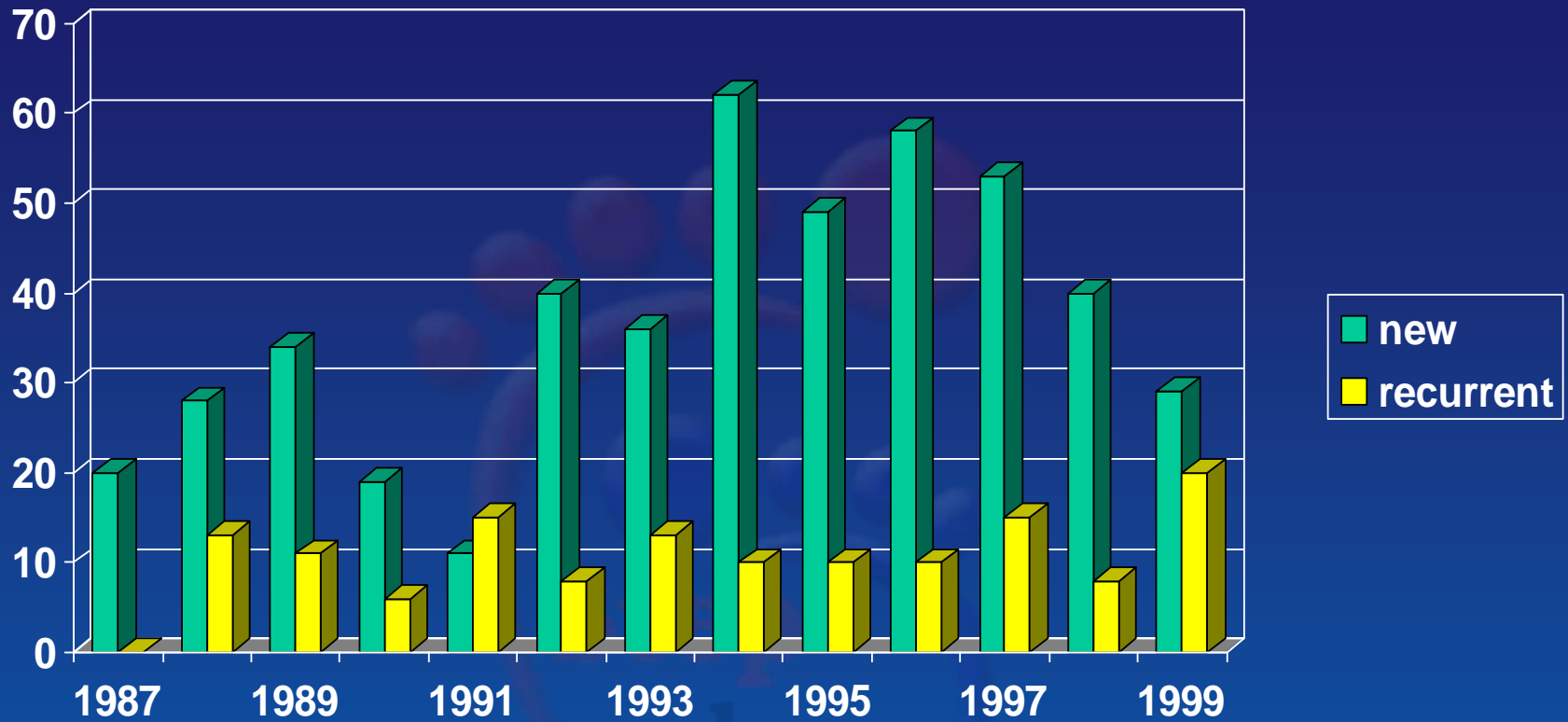
K Bakker, J Dooren  
Spaarne Hospital, Heemstede

Ned Tijdschr Geneesk. 1994 Mar 12;138(11):565-9



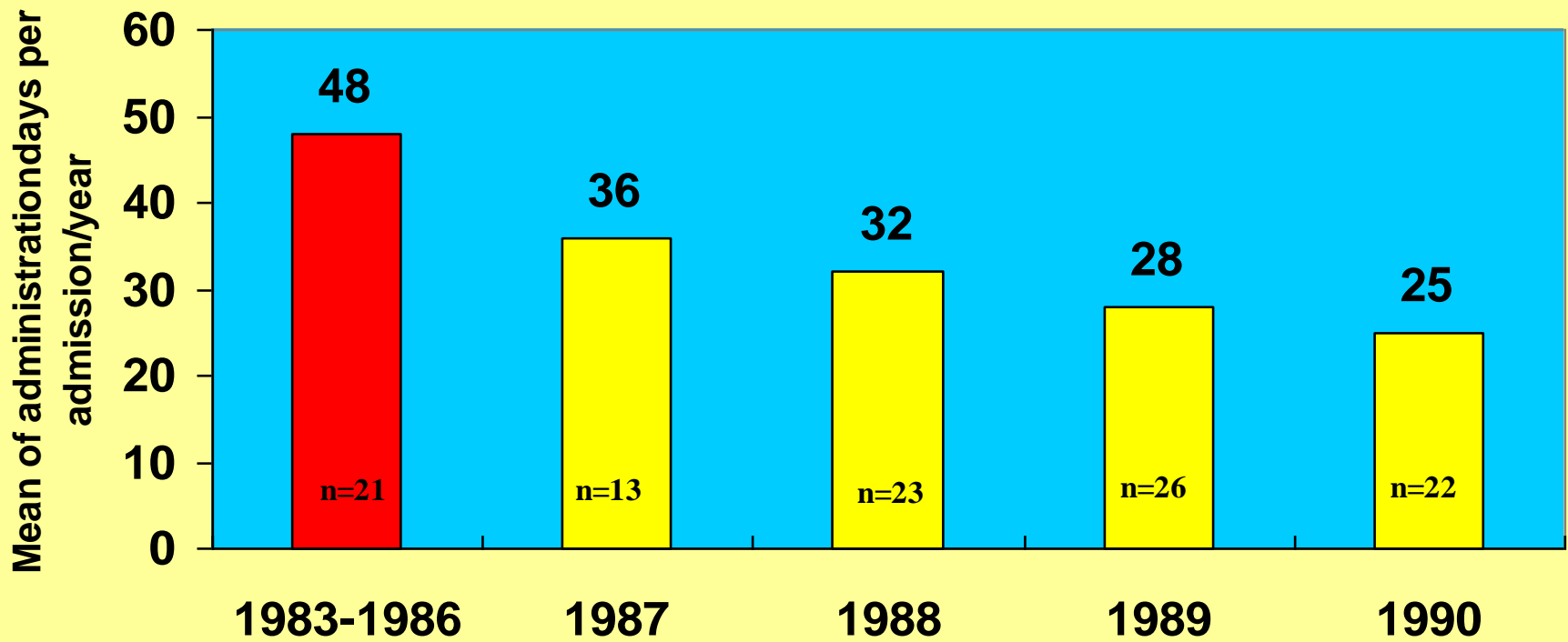
# Patients Footclinic Heemstede





# Ulcers Footclinic Heemstede

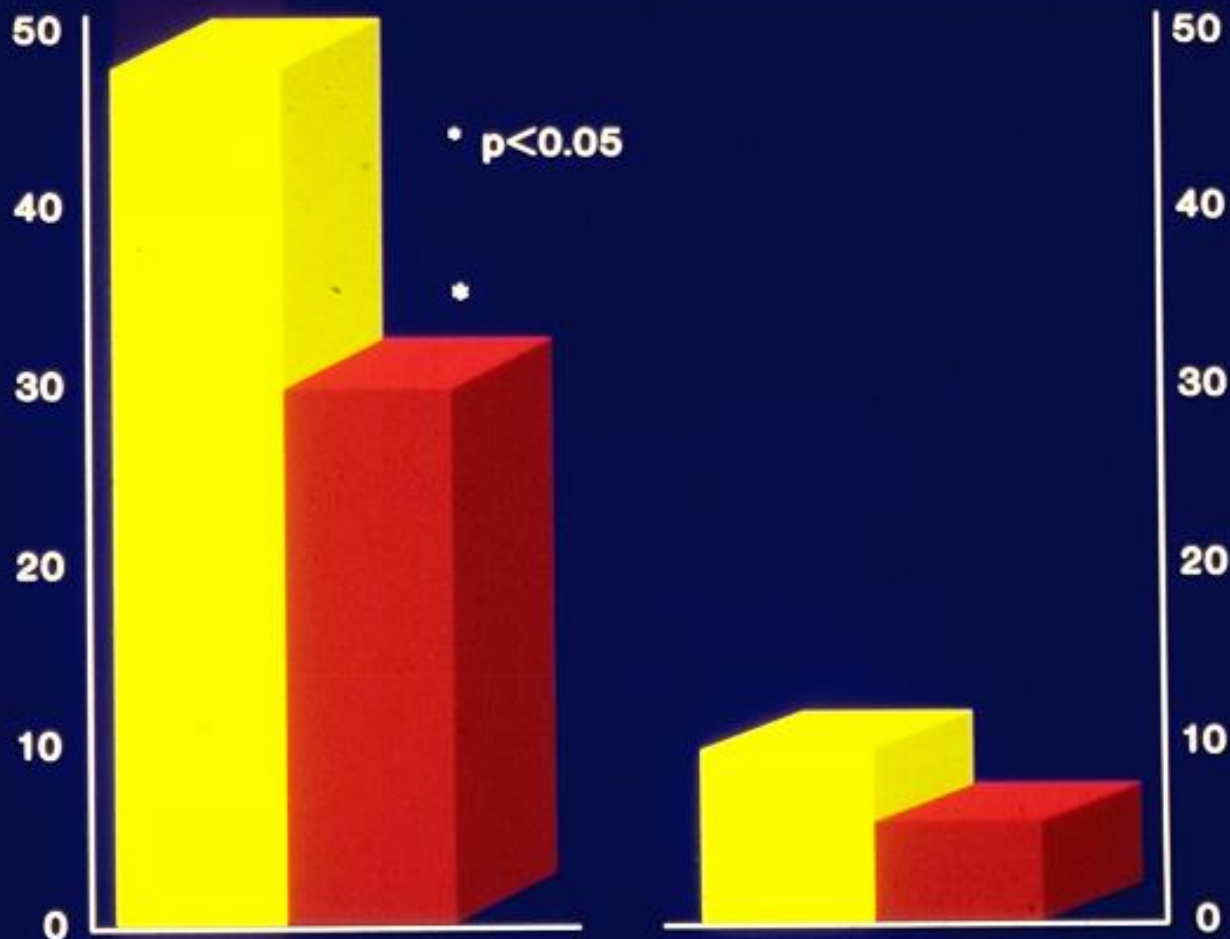




Number of admission days per admission per year before (1983-1986) the start of footclinic in the Spaarne Hospital Heemstede compared to the period after (1987-1990)



per opname



\*  $p < 0.05$

■ gemiddeld per jaar 1983-1986 vóór voetenpolikliniek

■ gemiddeld per jaar 1987-1990 na start voetenpolikliniek

# Spaarne Hospital Heemstede (The Netherlands)

## Results of 4 year foot clinic (1987-1990)

- Amputation reduction by 44%
- Reduction of hospital costs of 170.000 dollar per year

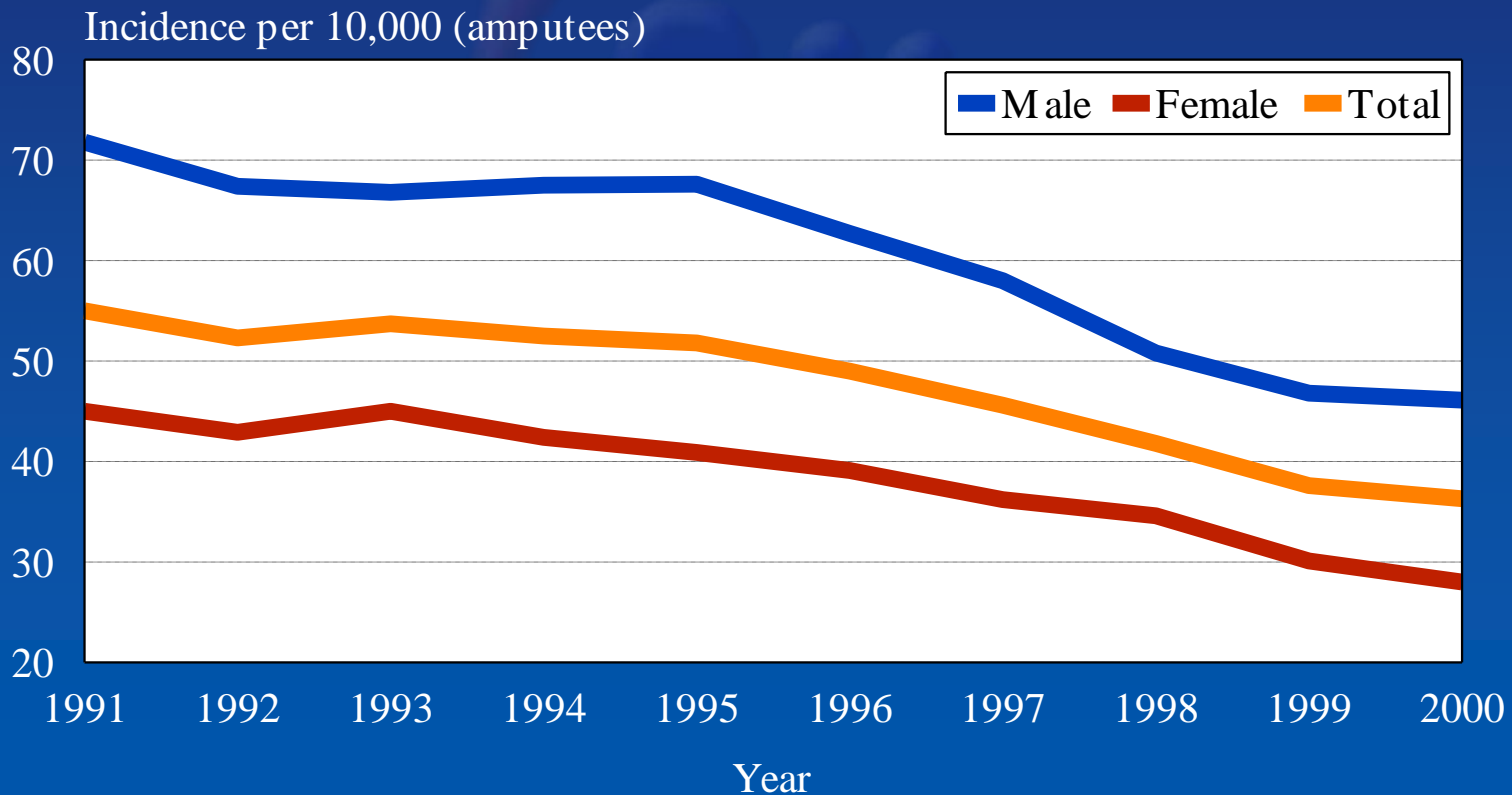


# The Netherlands


Almost 500,000 known patients with diabetes

Ulceration in 4% of diabetics in general practice

## Lower extremity amputation



# Hospitals in The Netherlands with podiatrist

Year	1995	2000
Number of hospitals	39 (32%)	84 (71%)
Private practice	32 (82%)	56 (67%)
Paid by hospital	7 (18%)	22 (26%)
Combination of both	0	4 (5%)
 Number of hours per week	4,6	5,9



# Hospitals in The Netherlands with a specialized foot clinic

Year	1995	2000
Number of hospitals	20 (16%)	43 (36%)
Number of hours per week	3,2	4,6





