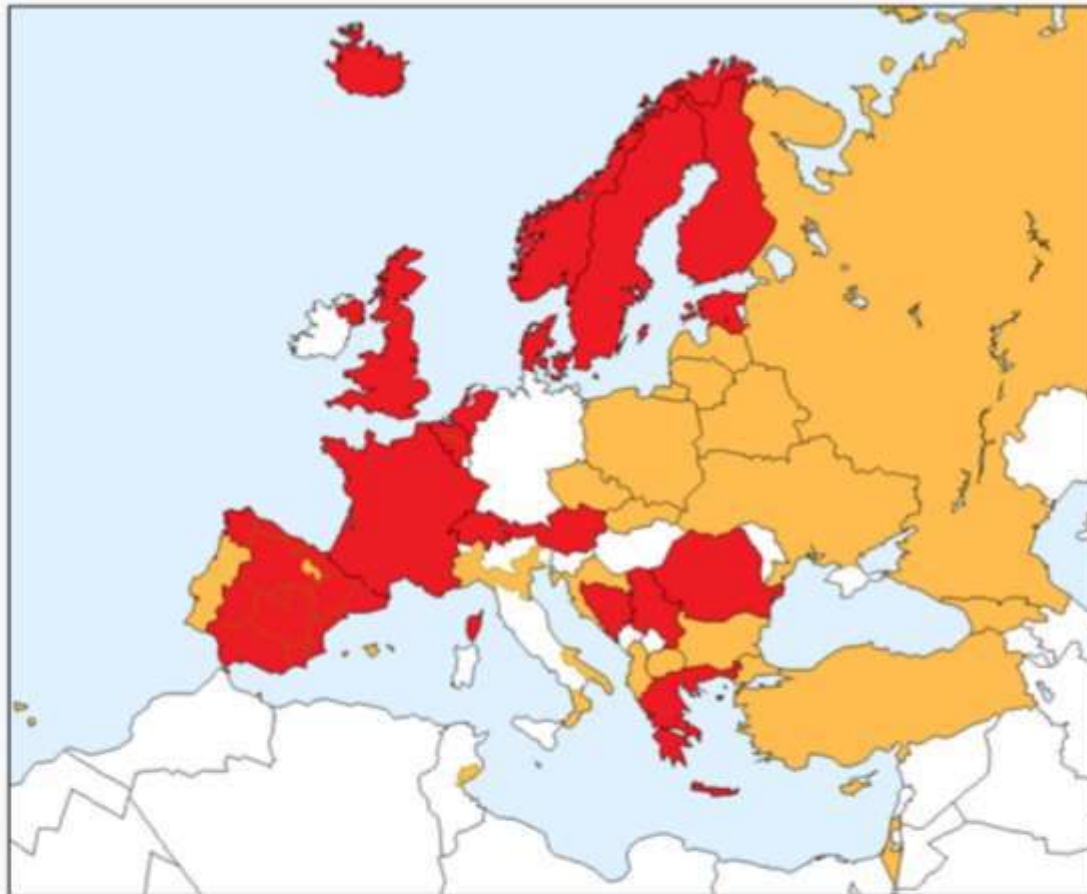






# **Summary of the 2016 ERA-EDTA Registry Annual Report**



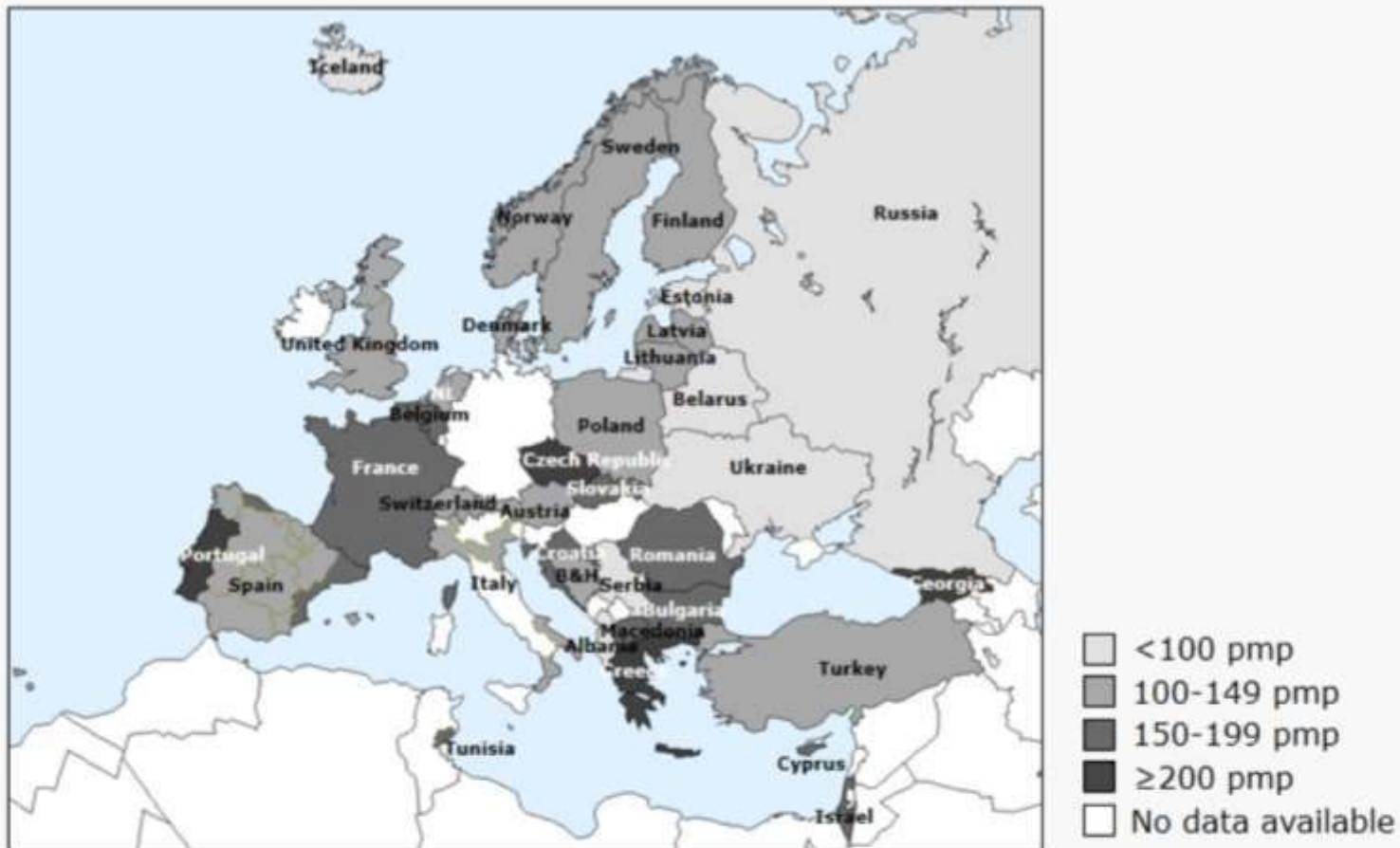
## National and regional renal registries that contributed data to the 2016 ERA-EDTA Registry Annual Report



-  Renal registries contributing with individual patient data
-  Renal registries contributing with aggregated data

# Incident patients accepted for RRT in 2016, at day 1

*by country*

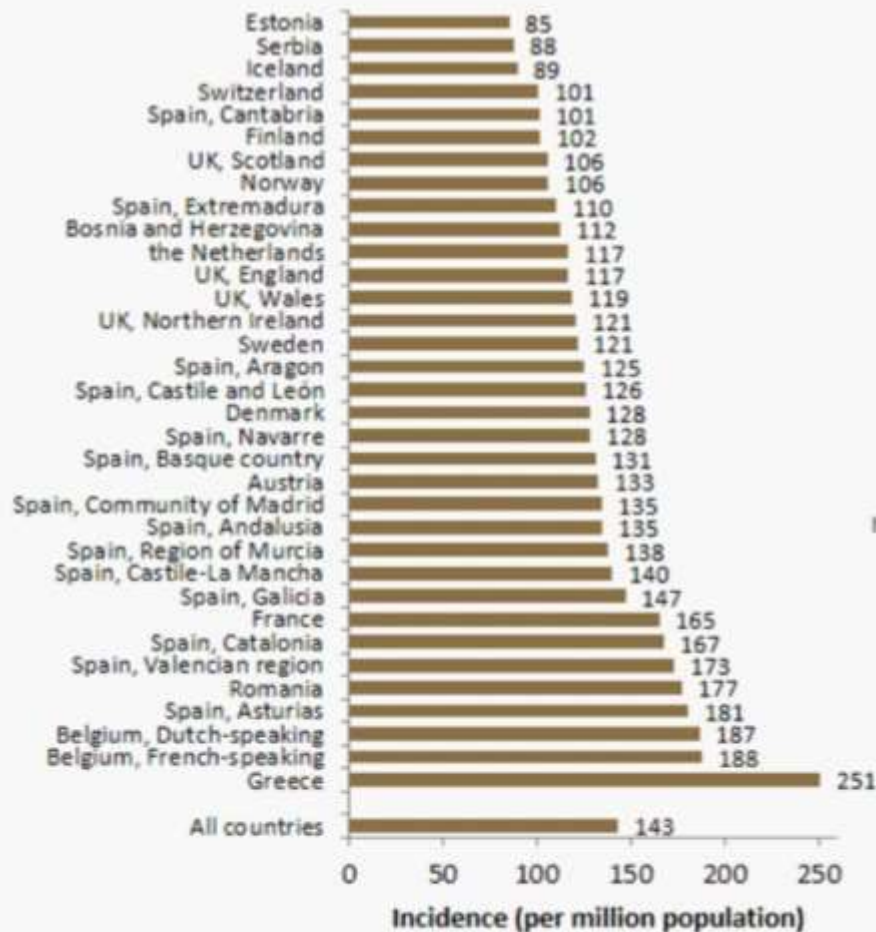




# Incident patients accepted for RRT in 2016 at day 1 by country

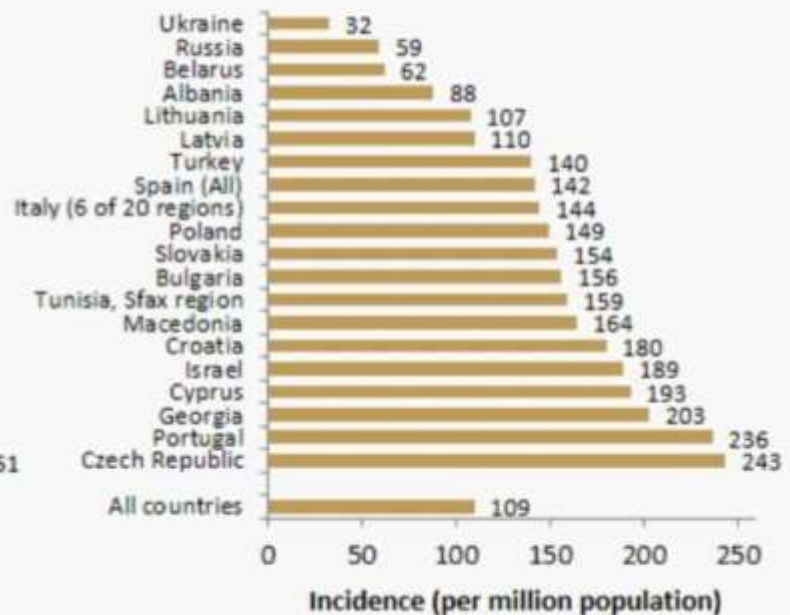
## Unadjusted incidence

*renal registries providing individual patient data*



## Unadjusted incidence

*renal registries providing aggregated data*



# Incident patients accepted for RRT in 2016

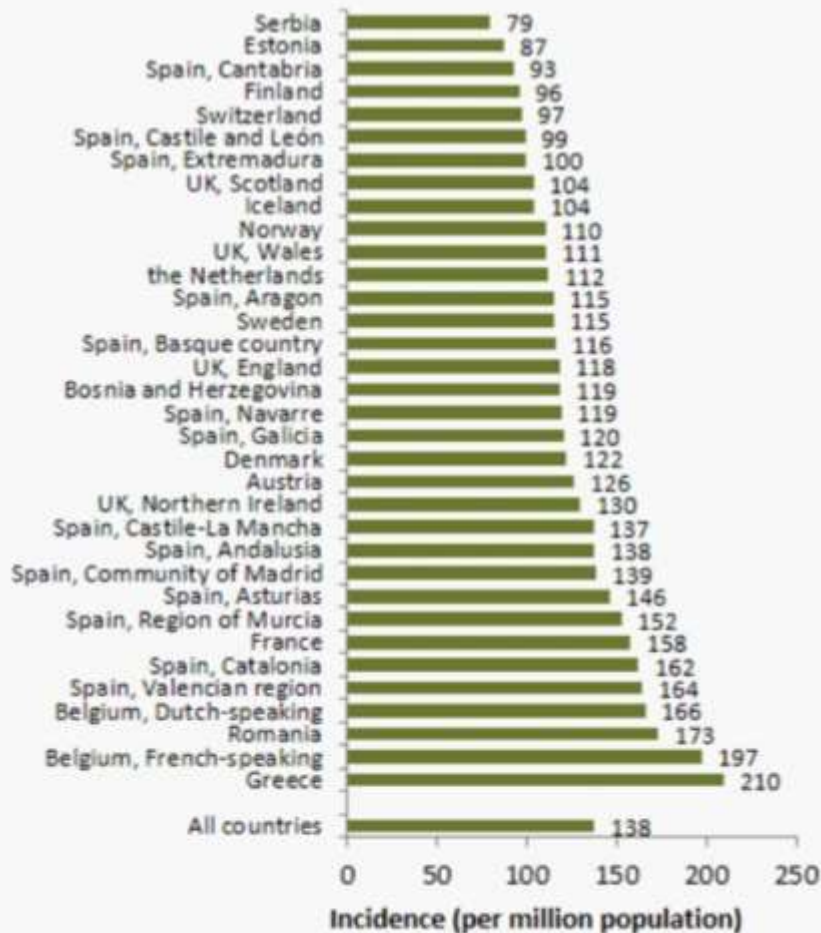
## at day 1

*by country*

*adjusted for age and gender*

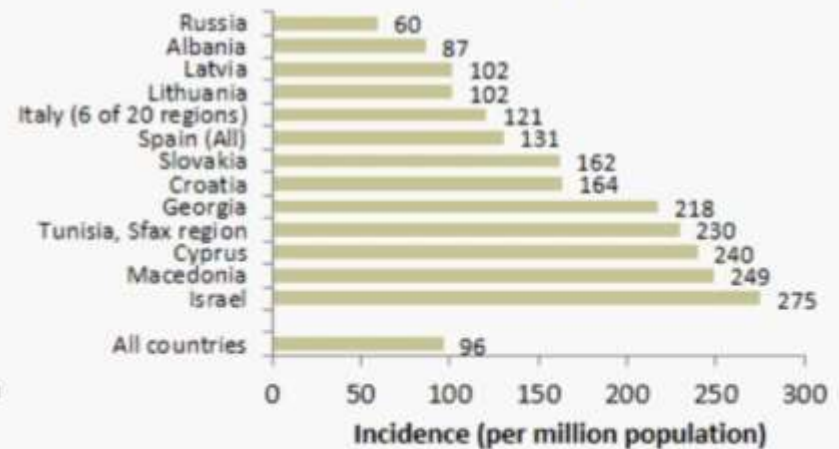
### Adjusted incidence

*renal registries providing individual patient data*



### Adjusted incidence

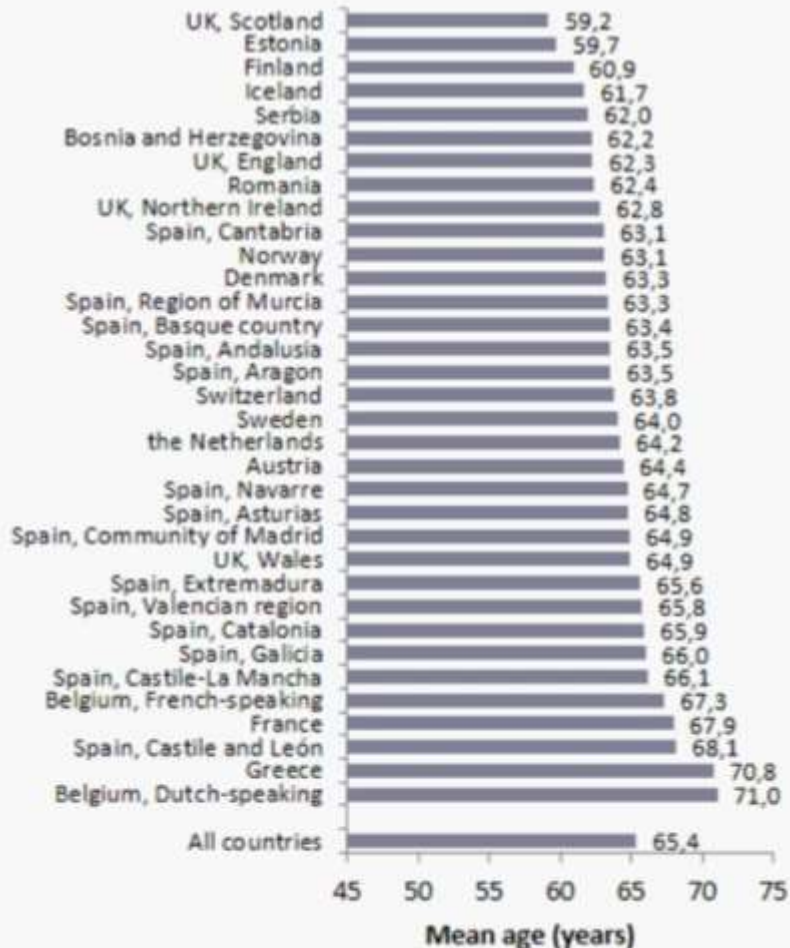
*renal registries providing aggregated data*



# Incident patients accepted for RRT in 2016 at day 1 mean age

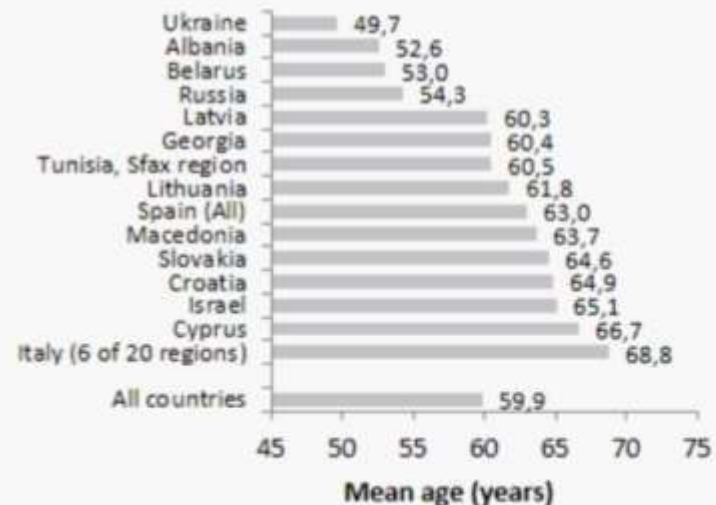
## Mean age at start of RRT

*renal registries providing individual patient data*



## Mean age at start of RRT

*renal registries providing aggregated data*



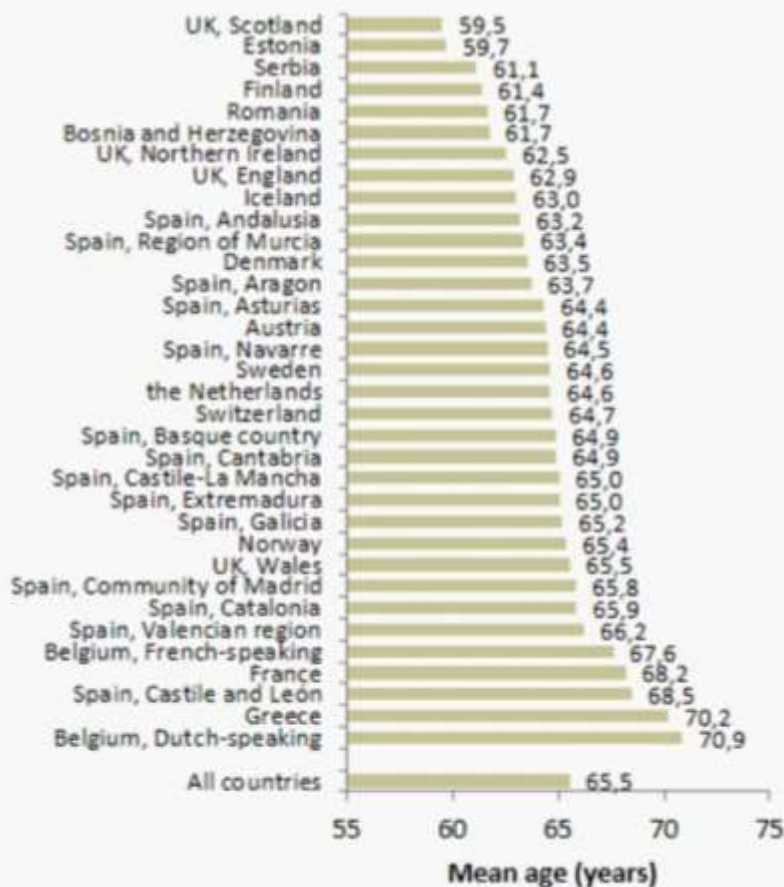


# Incident patients accepted for RRT in 2016, at day 1

*registries providing individual patient data only*

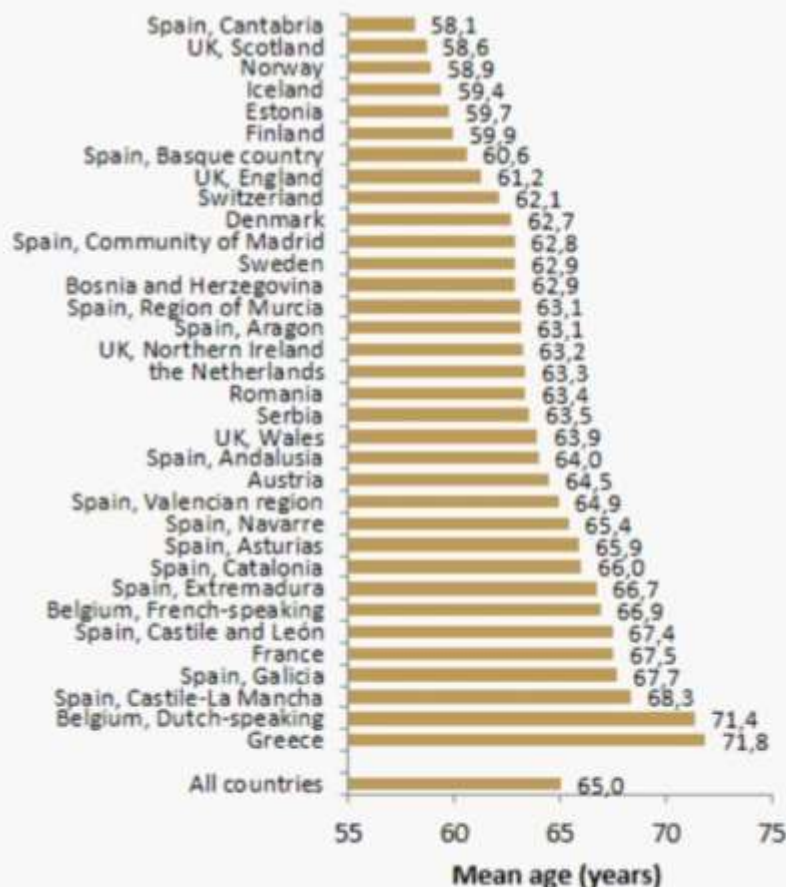
### Mean age at start of RRT

*male patients*



### Mean age at start of RRT

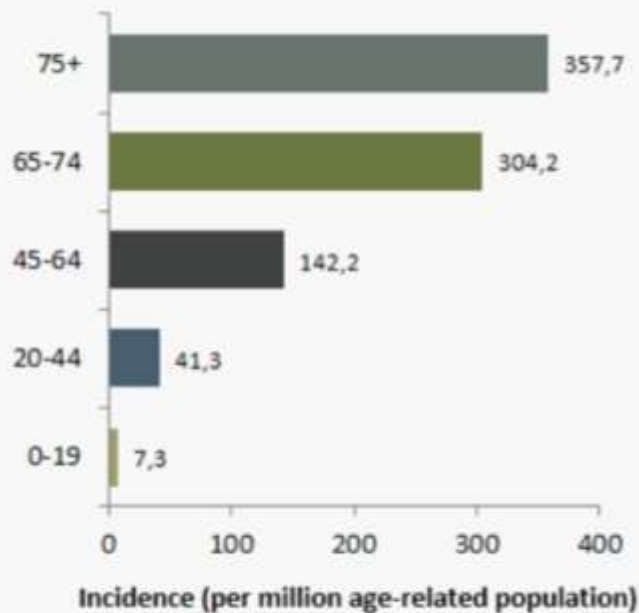
*female patients*



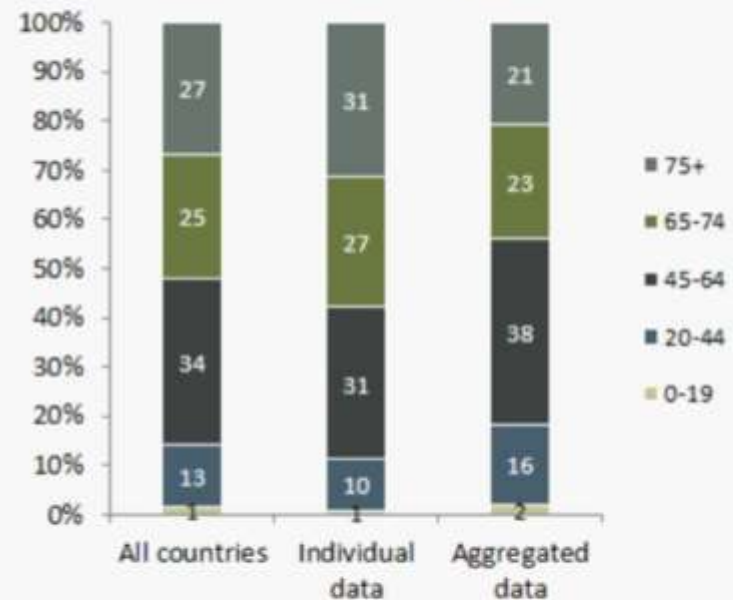
# Incident patients accepted for RRT in 2016, at day 1

*by age category*

**Incidence by age category**  
*for all registries*



**Incidence by age category**  
*by type of data provided by registry*

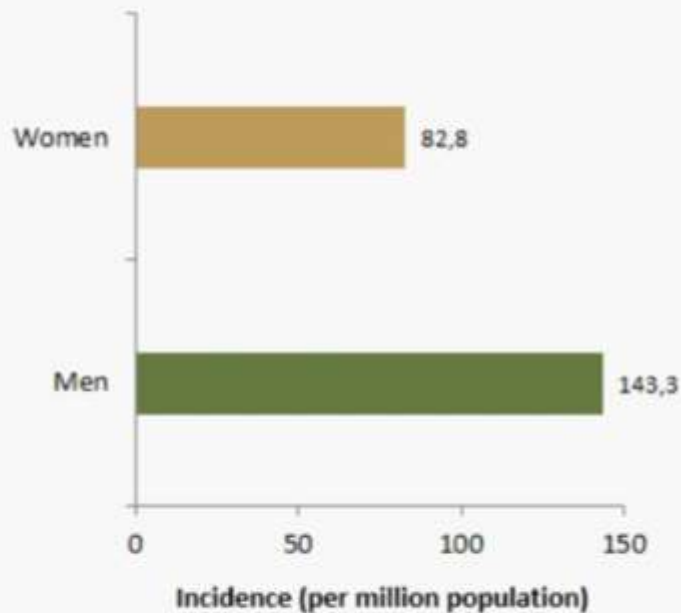




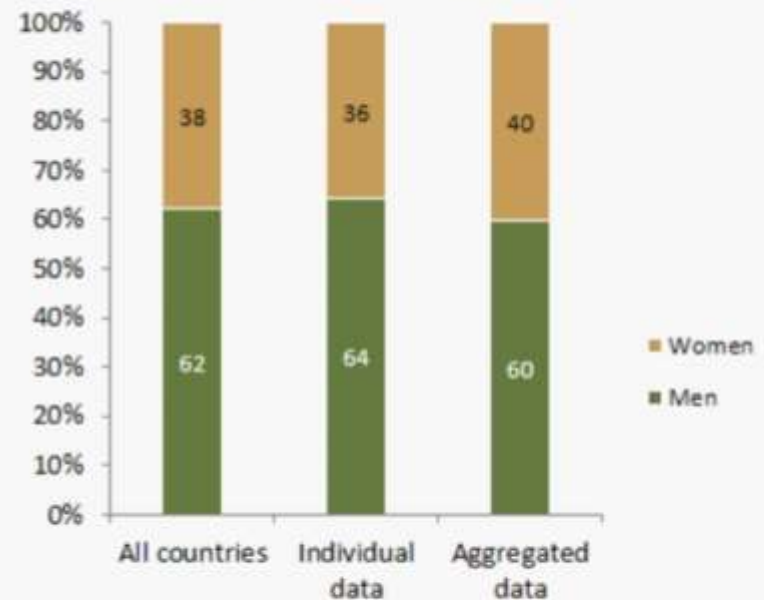
# Incident patients accepted for RRT in 2016, at day 1

*by gender*

**Incidence by gender**  
*for all registries*



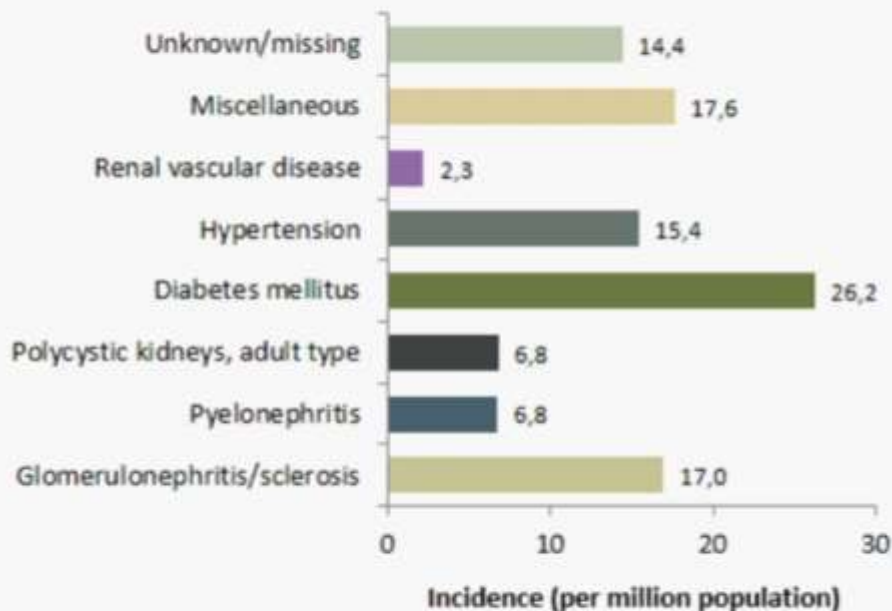
**Incidence by gender**  
*by type of data provided by registry*



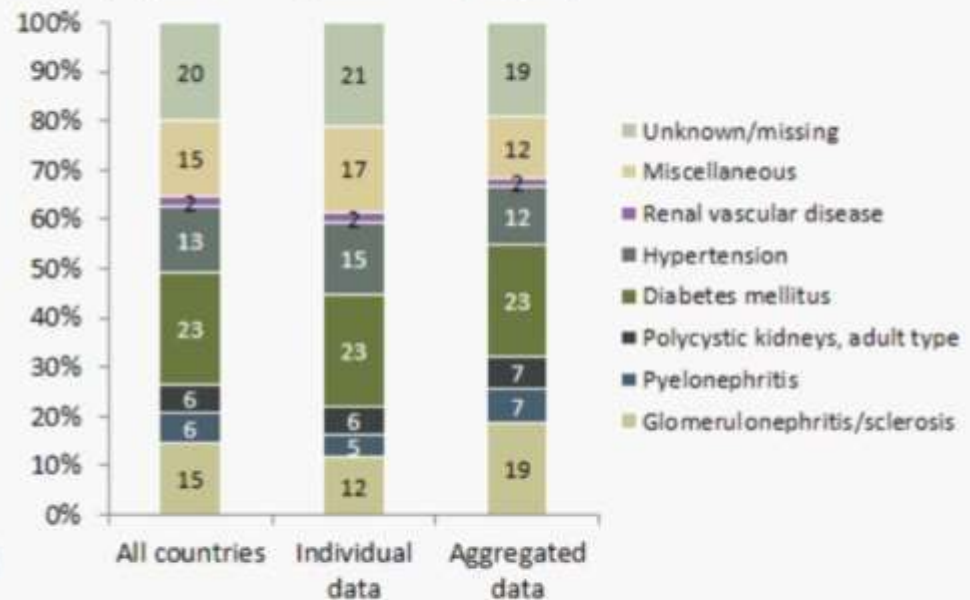
# Incident patients accepted for RRT in 2016, at day 1

*by primary renal disease*

**Incidence by primary renal disease**  
*for all registries*



**Incidence by primary renal disease**  
*by type of data provided by registry*



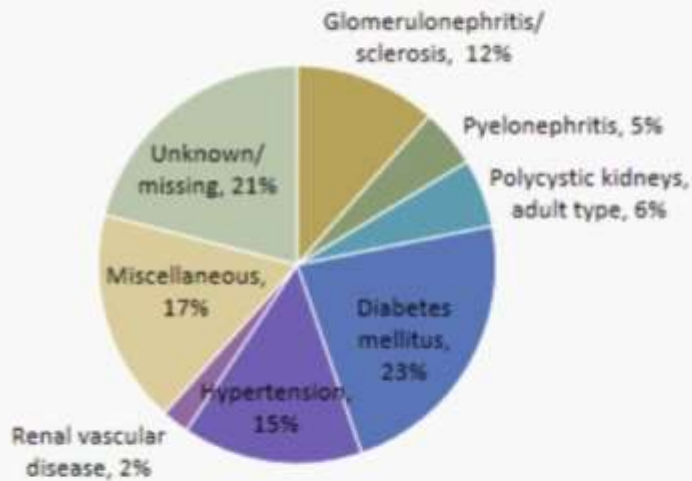
# Incident patients accepted for RRT in 2016, at day 1

*by primary renal disease and age category*

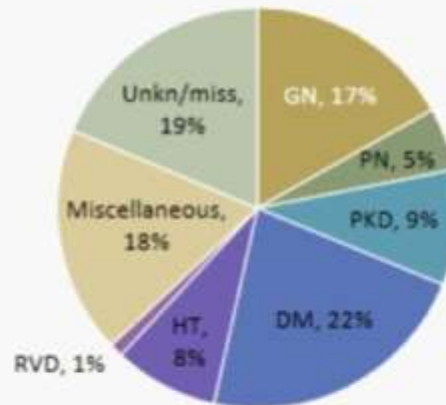
## Incidence by primary renal disease

*patients from registries providing individual patient data only*

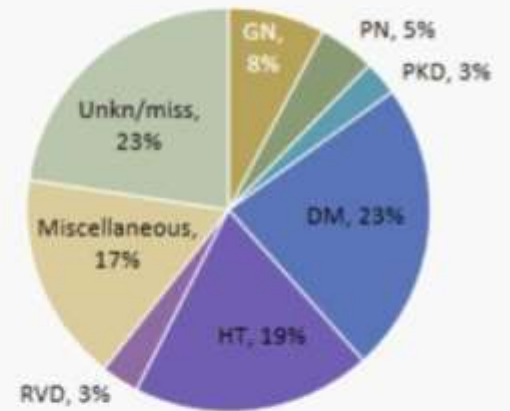
**all patients**



**patients younger than 65 years  
of age at the start of RRT**



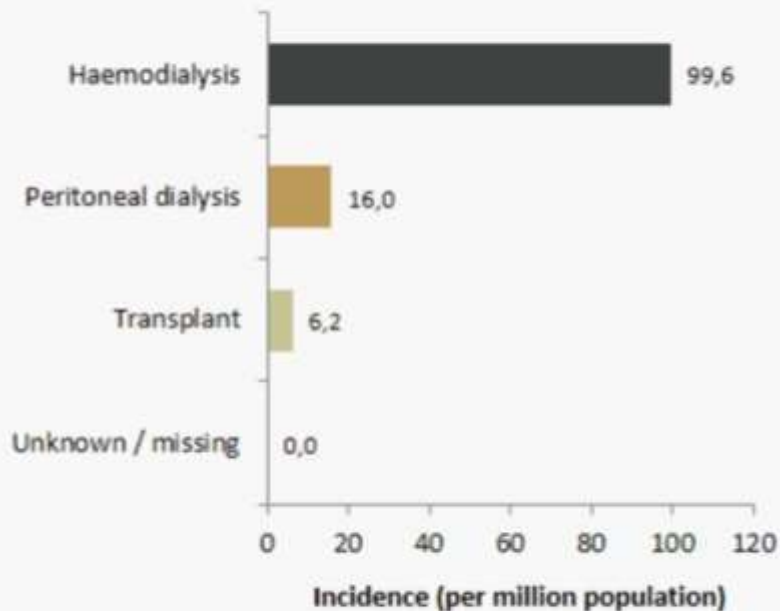
**patients aged 65 years or older  
at the start of RRT**



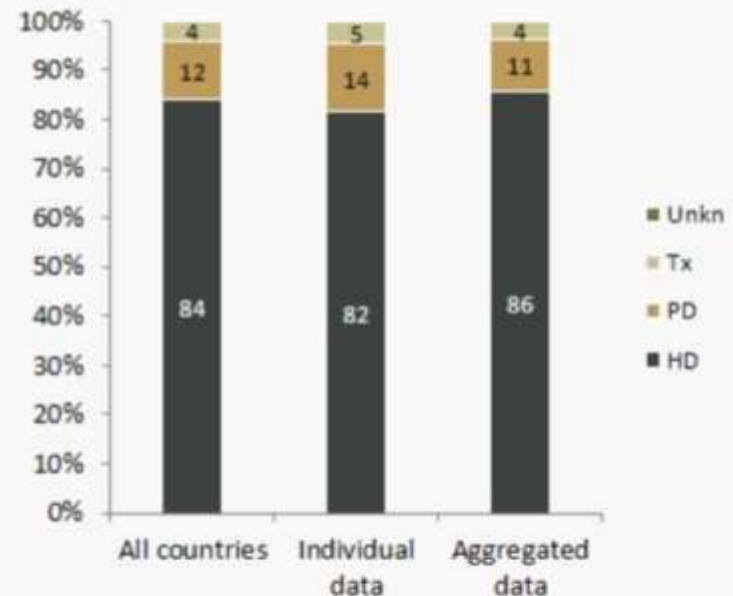


# Incident patients accepted for RRT in 2016, at day 91 *by established modality*

**Incidence at day 91  
by established modality**  
*for all registries*



**Incidence at day 91  
by established modality**  
*by type of data provided by registry*



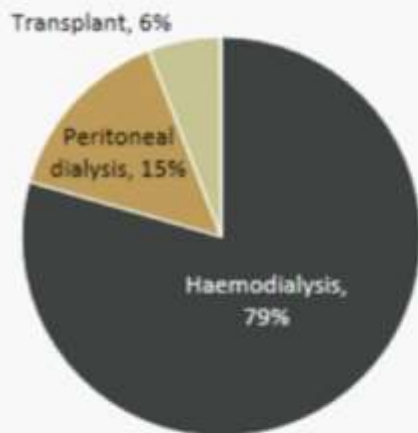
# Incident patients accepted for RRT in 2016, at day 91

*by established modality and age category*

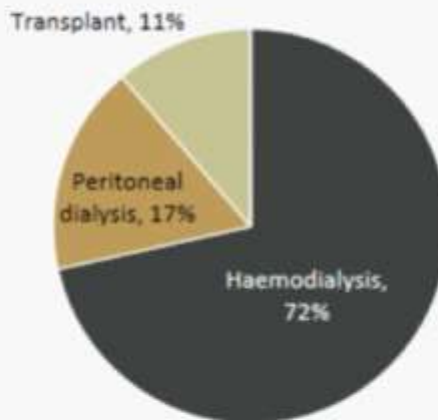
## Incidence at day 91 by established modality

*patients from registries providing individual patient data only*

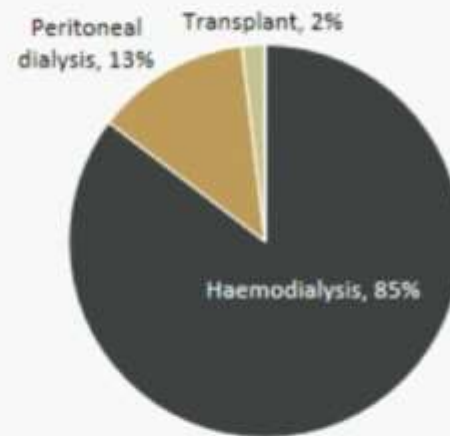
all patients



patients younger than 65 years  
of age at the start of RRT



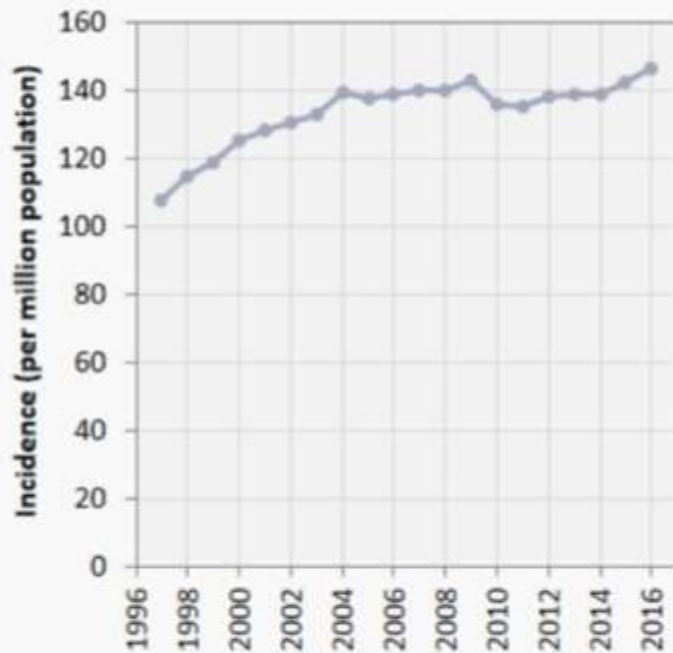
patients aged 65 years or older  
at the start of RRT



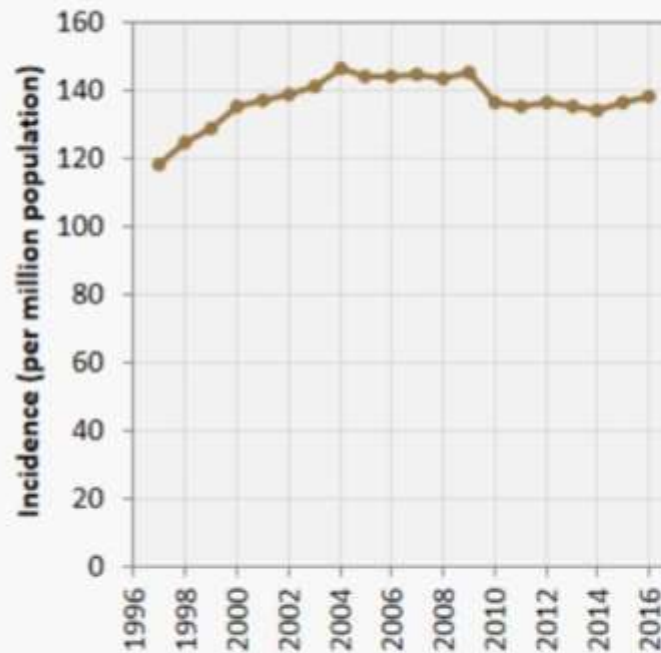
# Incident patients accepted for RRT, at day 1

*last 20 years (1997-2016)*

**Unadjusted incidence over time**  
*all patients starting RRT*



**Adjusted incidence over time**  
*all patients starting RRT*

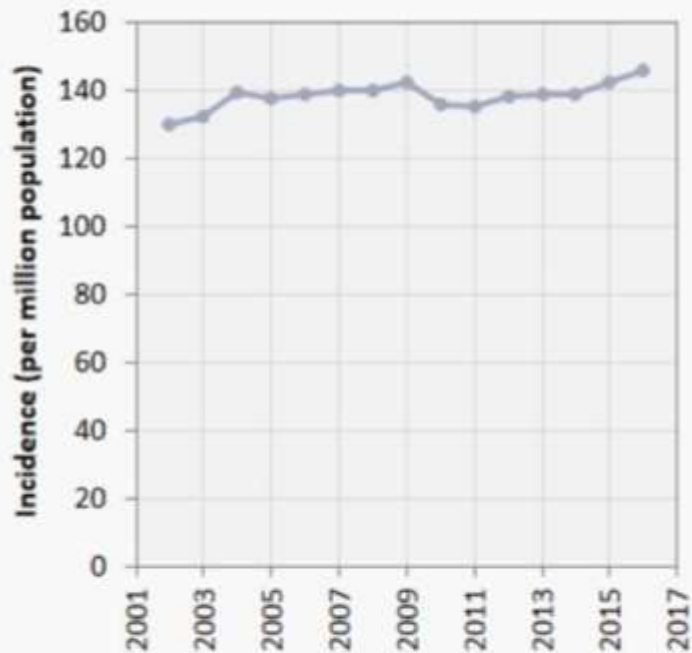




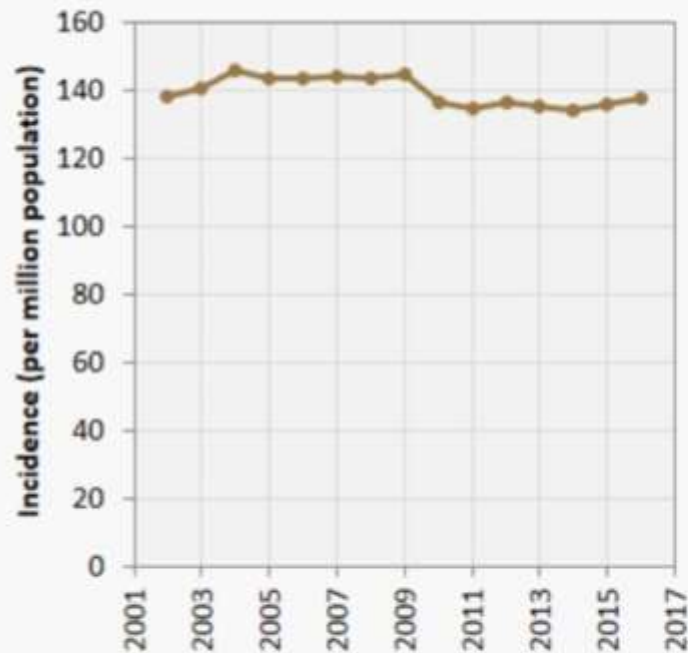
# Incident patients accepted for RRT, at day 1

*last 15 years (2002-2016)*

**Unadjusted incidence over time**  
*all patients starting RRT*



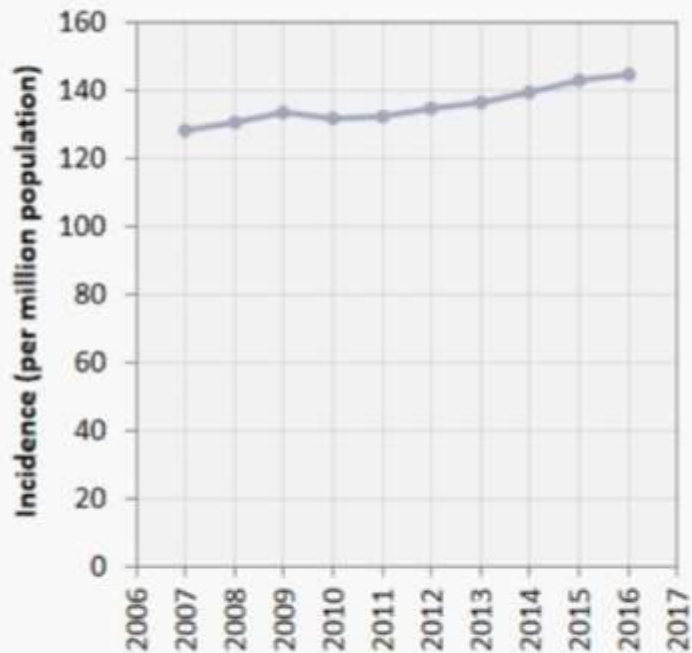
**Adjusted incidence over time**  
*all patients starting RRT*



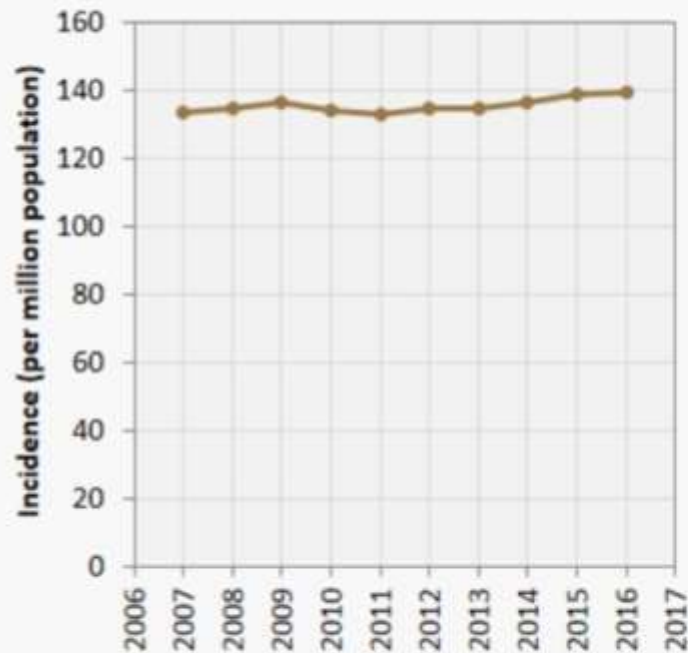
# Incident patients accepted for RRT, at day 1

*last 10 years (2007-2016)*

**Unadjusted incidence over time**  
*all patients starting RRT*



**Adjusted incidence over time**  
*all patients starting RRT*

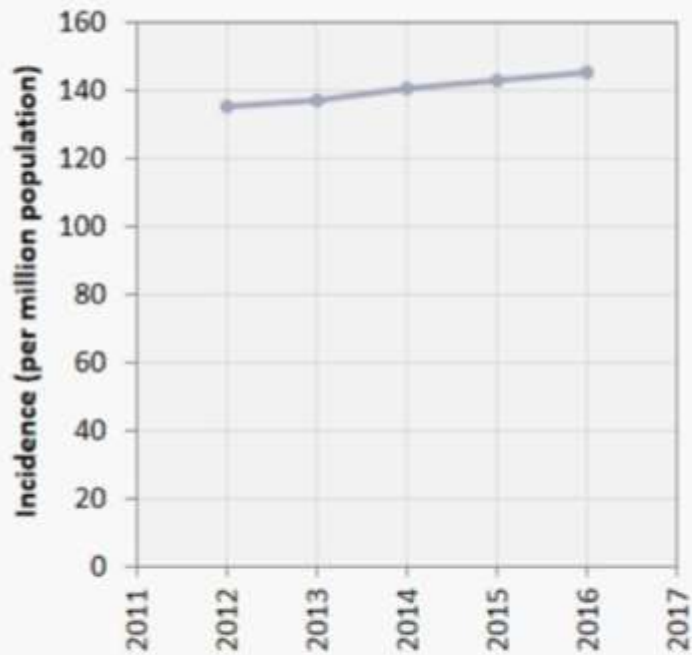


# Incident patients accepted for RRT, at day 1

*last 5 years (2012-2016)*

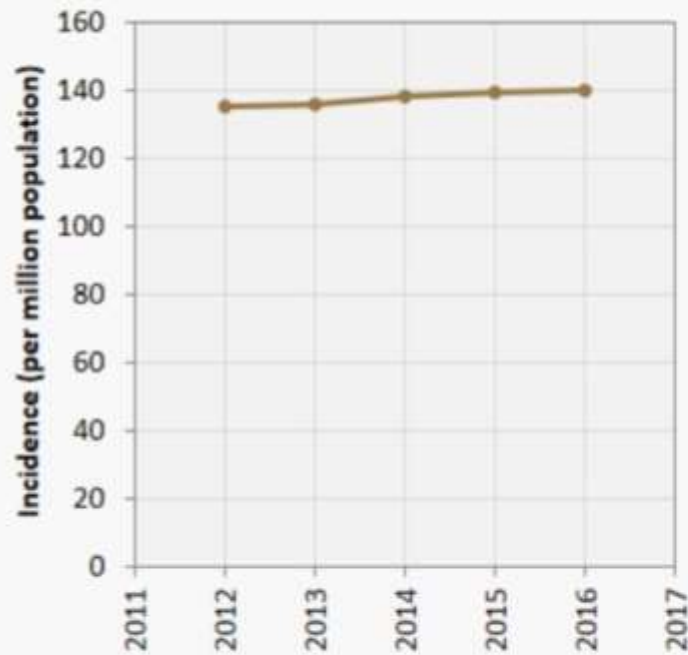
### Unadjusted incidence over time

*all patients starting RRT*



### Adjusted incidence over time

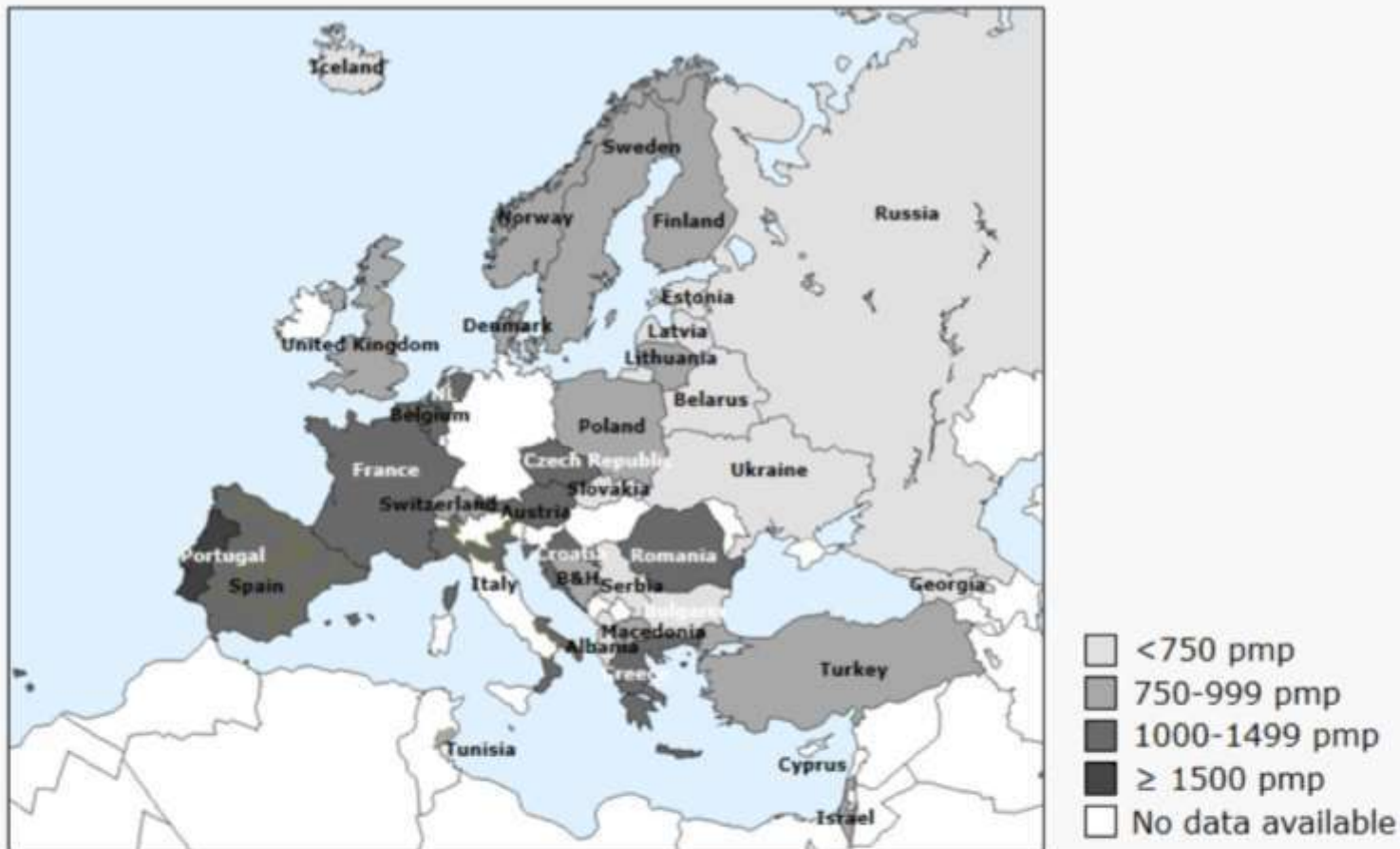
*all patients starting RRT*





# Prevalent patients on RRT in 2016

*by country*

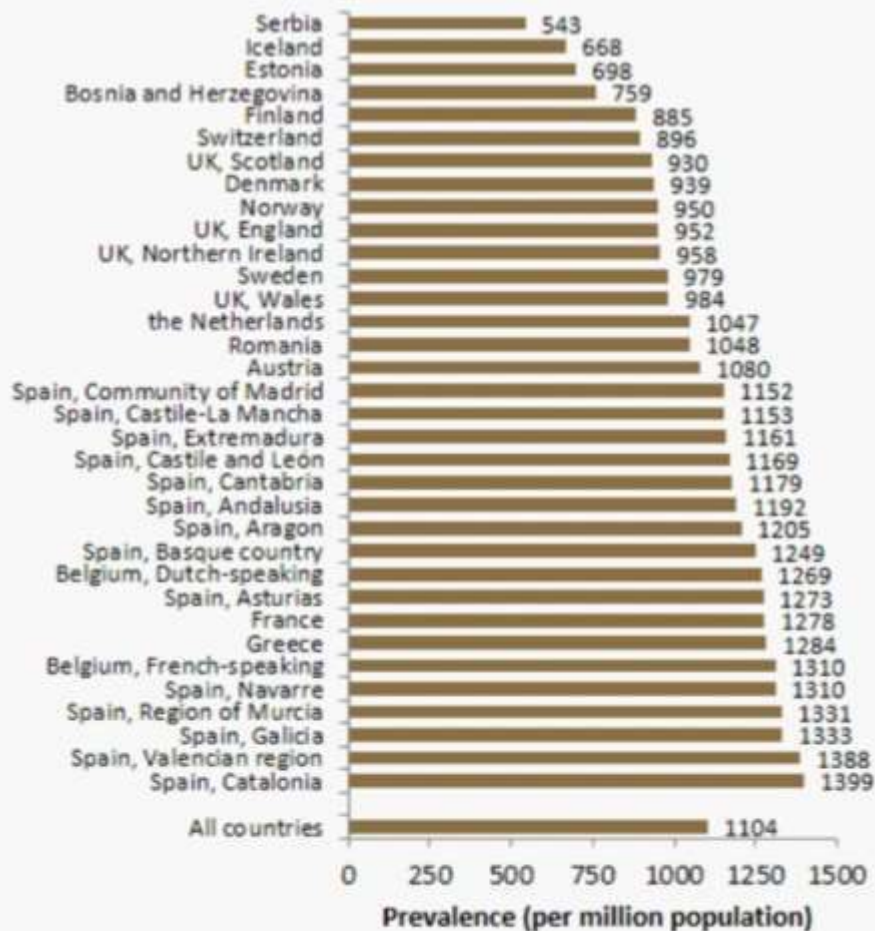


# Prevalent patients on RRT in 2016

by country

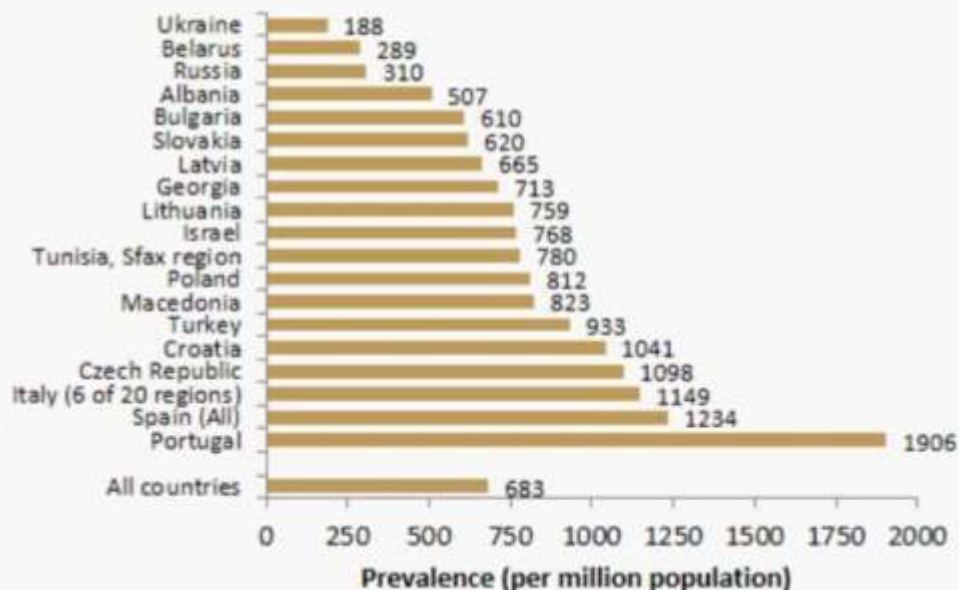
## Unadjusted prevalence

renal registries providing individual patient data



## Unadjusted prevalence

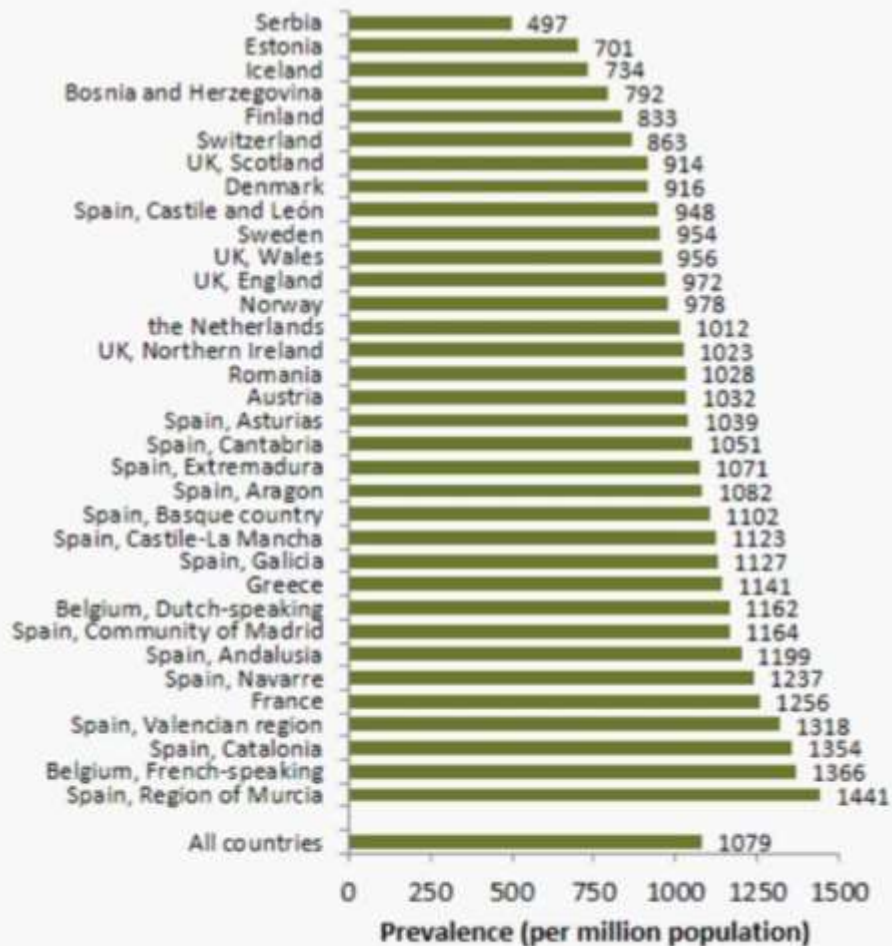
renal registries providing aggregated data



# Prevalent patients on RRT in 2016

## Adjusted prevalence

*renal registries providing individual patient data*

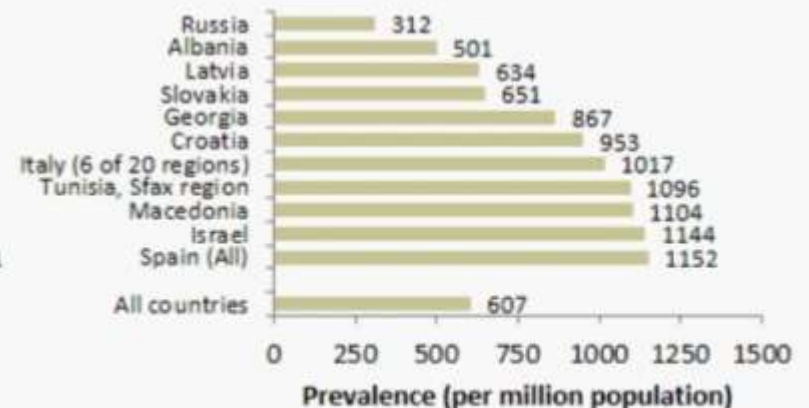


*by country*

*adjusted for age and gender*

## Adjusted prevalence

*renal registries providing aggregated data*



# Prevalent patients on RRT in 2016

*mean age*

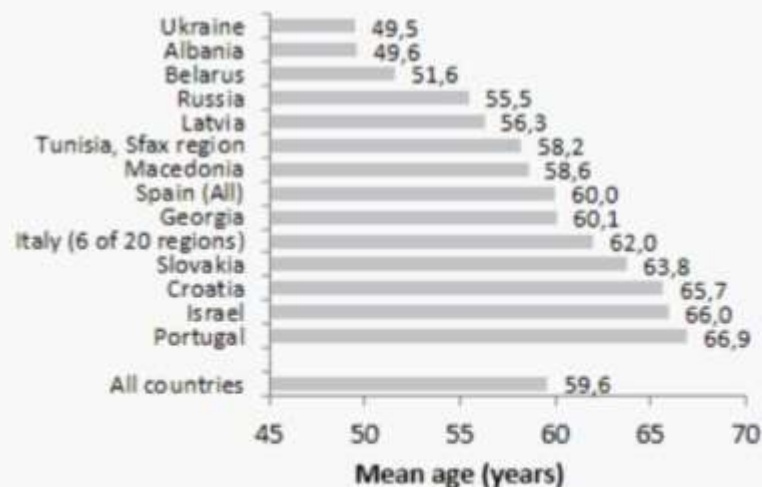
## Mean age on 31 December 2016

*renal registries providing individual patient data*



## Mean age on 31 December 2016

*renal registries providing aggregated data*



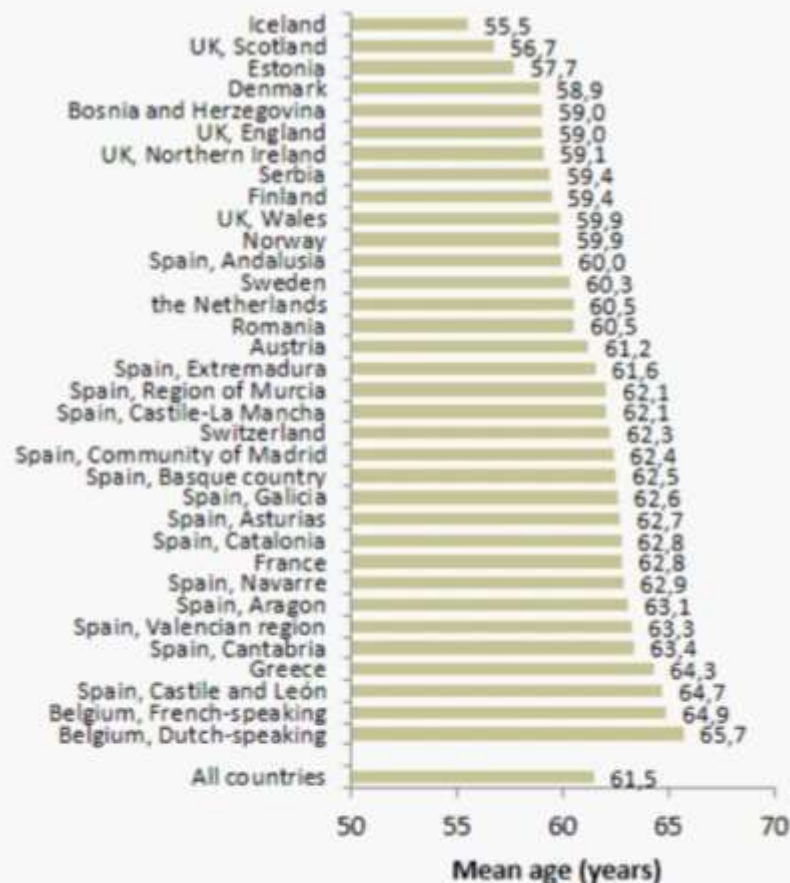


# Prevalent patients on RRT in 2016

*for registries providing individual patient data only*

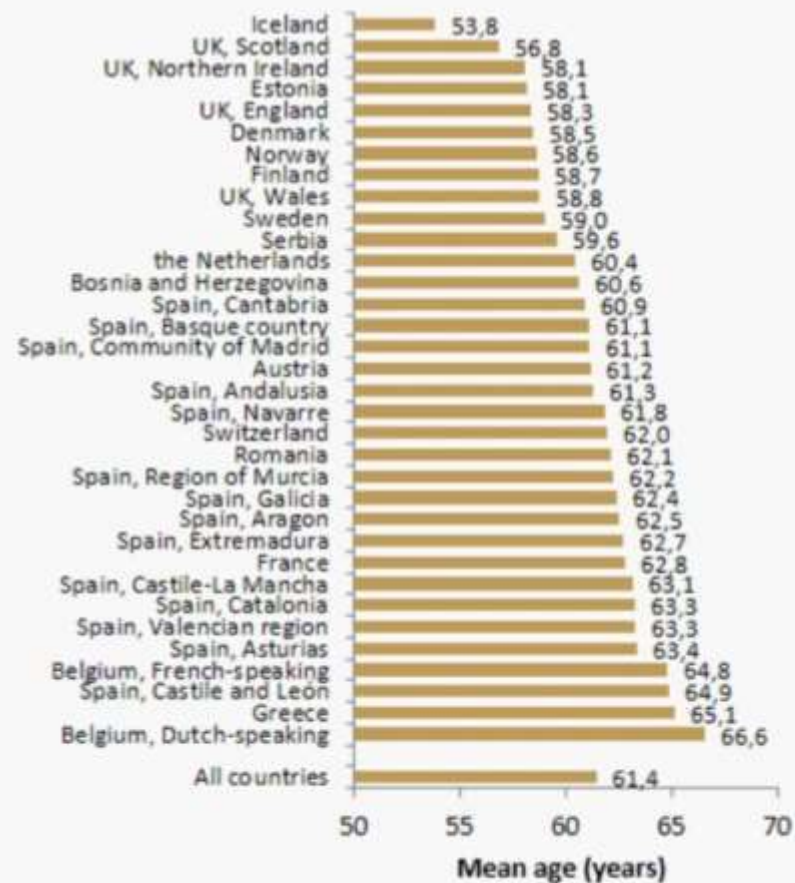
## Mean age on 31 December 2016

*male patients*



## Mean age on 31 December 2016

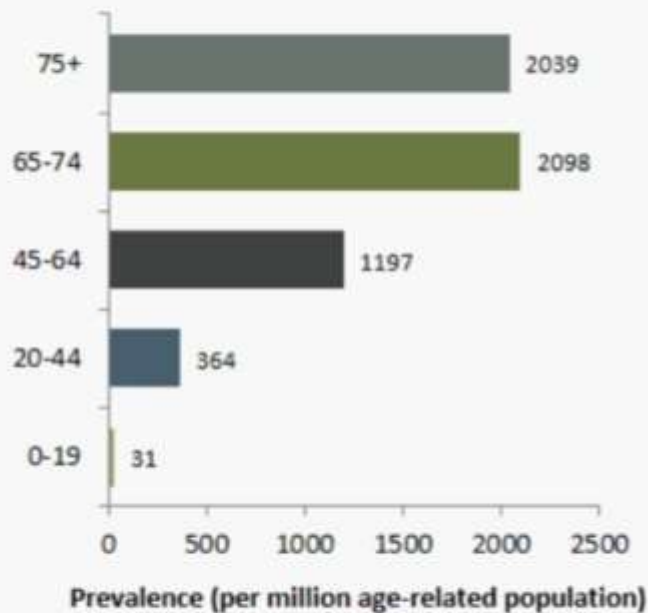
*female patients*



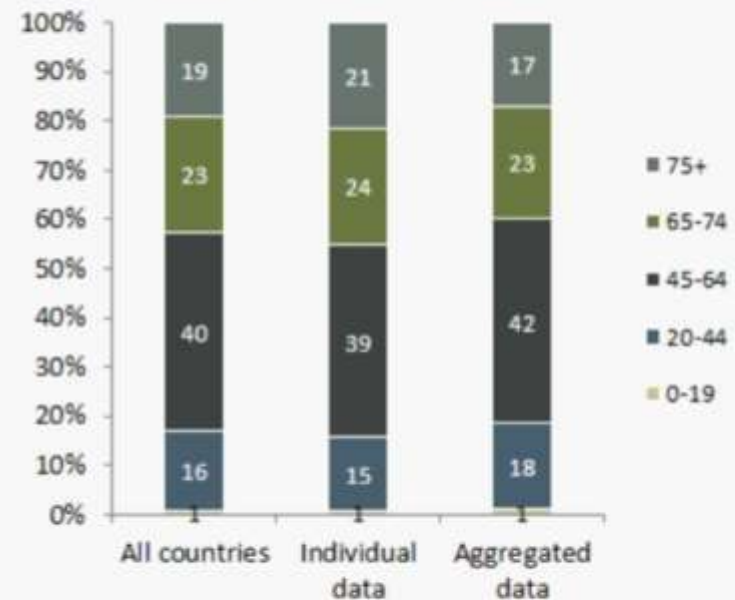
# Prevalent patients on RRT in 2016

*by age category*

**Prevalence by age category**  
*for all registries*



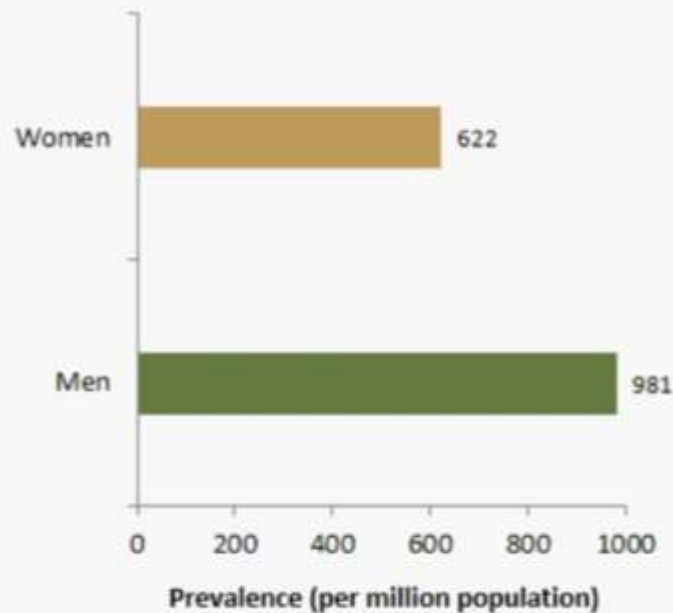
**Prevalence by age category**  
*by type of data provided by registry*



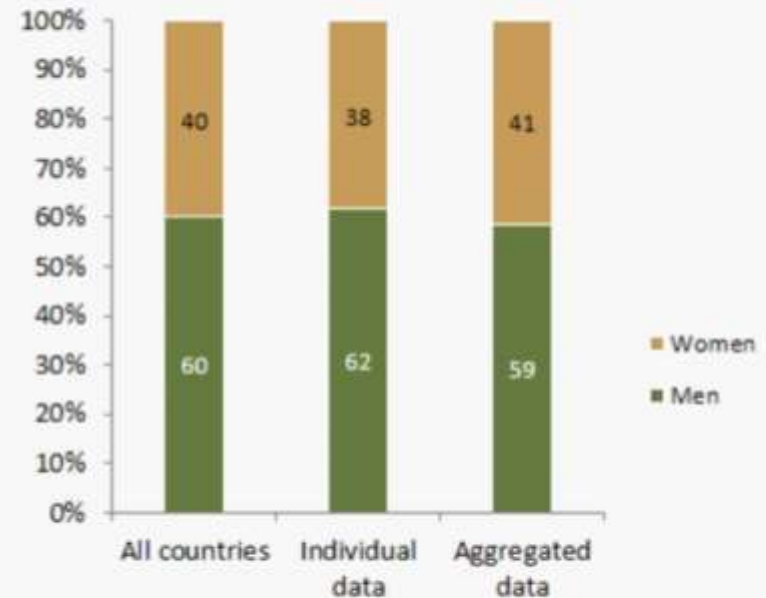
# Prevalent patients on RRT in 2016

*by gender*

**Prevalence by gender**  
*for all registries*



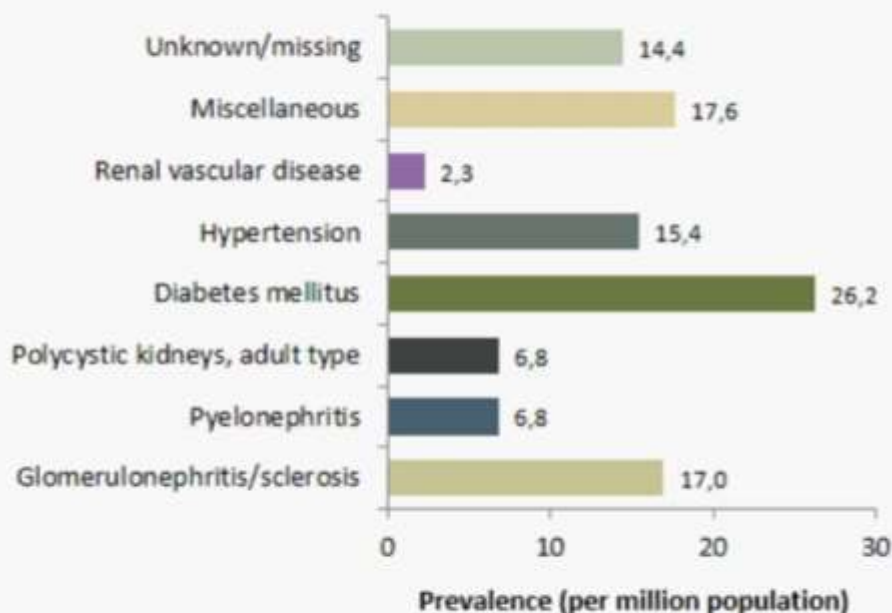
**Prevalence by gender**  
*by type of data provided by registry*



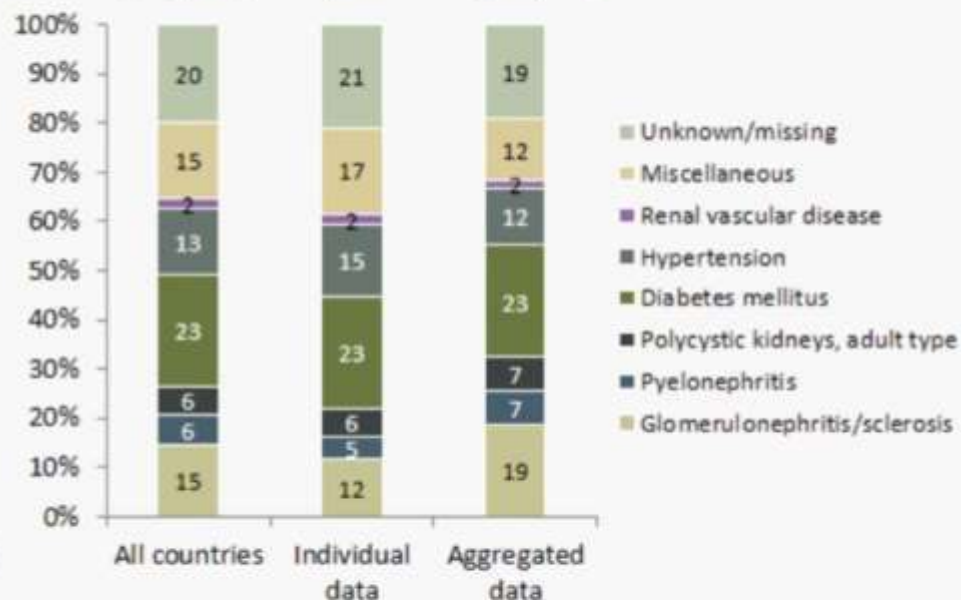
# Prevalent patients on RRT in 2016

*by primary renal disease*

**Prevalence by primary renal disease**  
*for all registries*



**Prevalence by primary renal disease**  
*by type of data provided by registry*





# Prevalent patients on RRT in 2016

*by primary renal disease and age category*

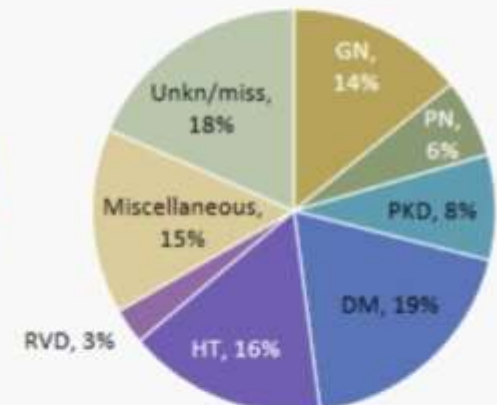
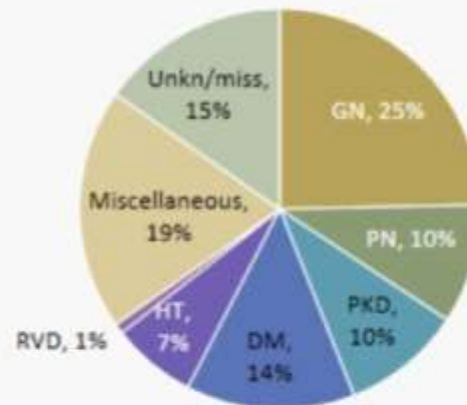
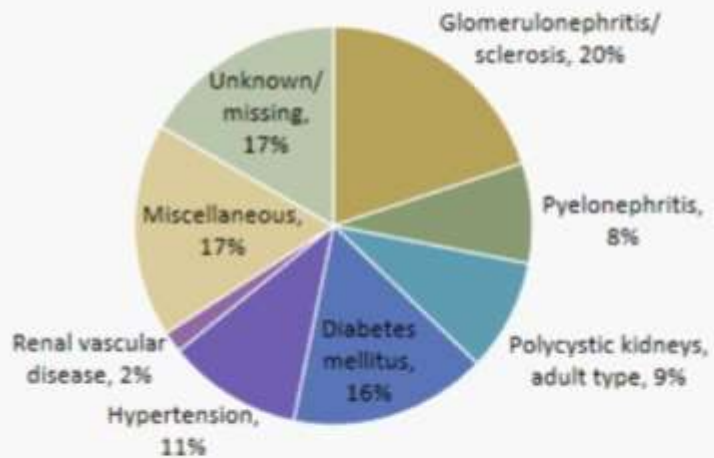
## Prevalence by primary renal disease

*patients from registries providing individual patient data only*

all patients

patients younger than 65 years of age

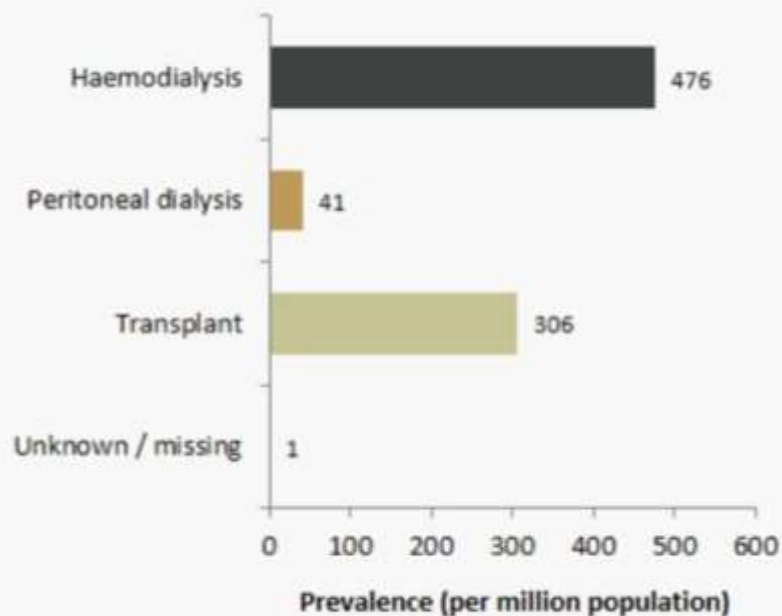
patients aged 65 years or older



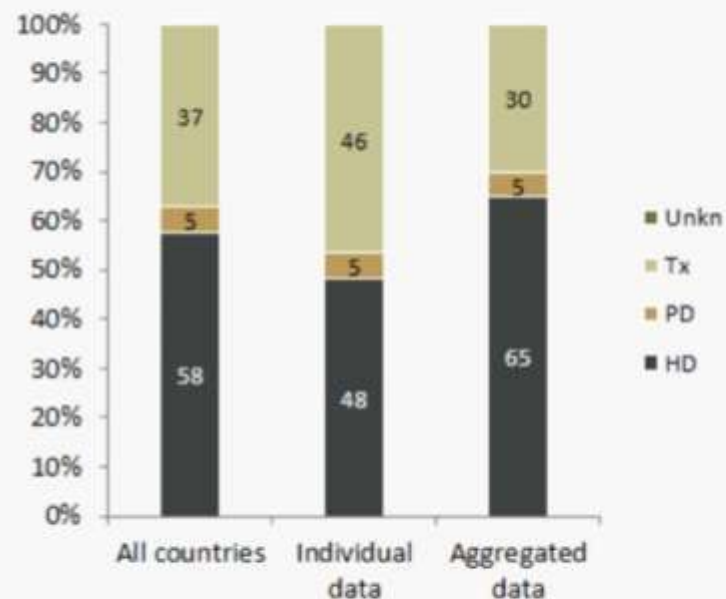
# Prevalent patients on RRT in 2016

*by modality*

**Prevalence by modality**  
*for all registries*



**Prevalence by modality**  
*by type of data provided by registry*



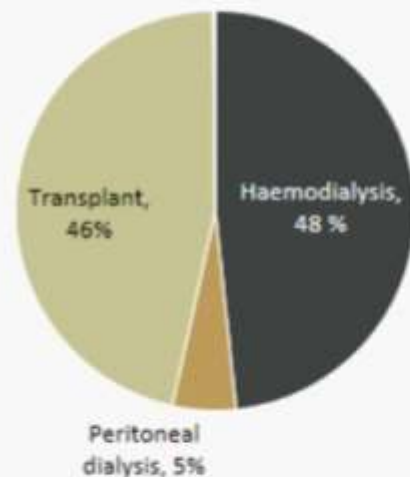
# Prevalent patients on RRT in 2016

*by modality and age category*

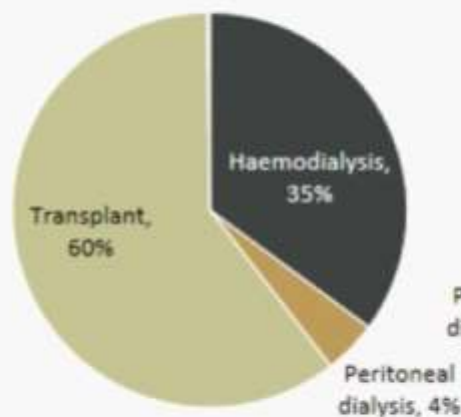
## Prevalence by modality

*patients from registries providing individual patient data only*

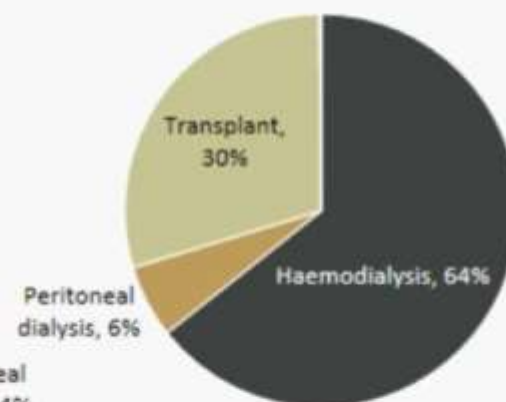
**all patients**



**patients younger than 65 years of age**



**patients aged 65 years or older**

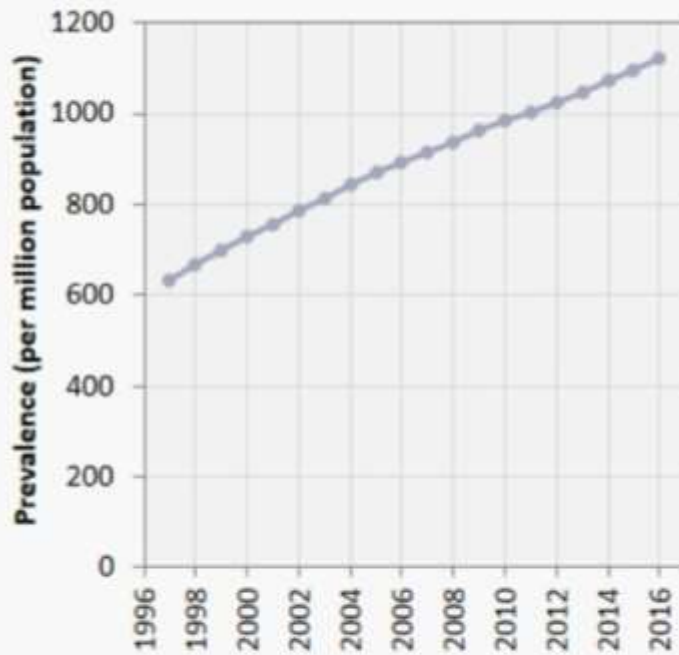


# Prevalent patients on RRT

*last 20 years (1997-2016)*

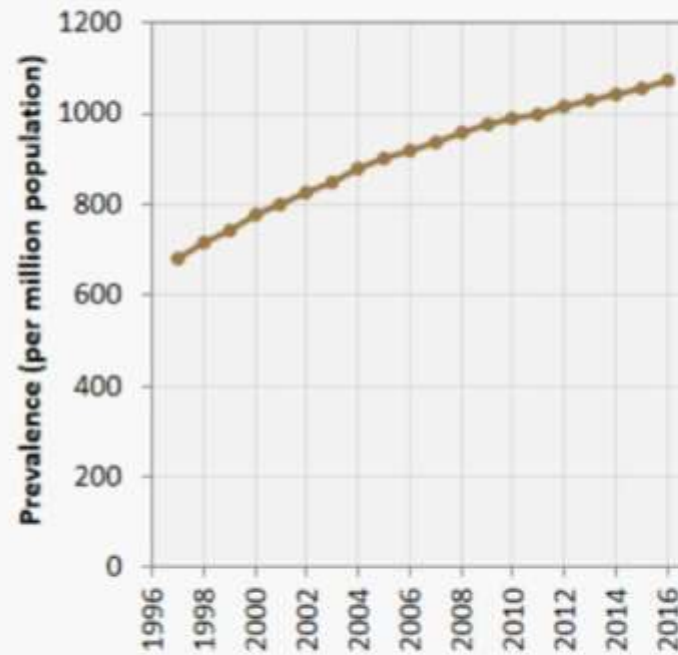
## Unadjusted prevalence over time

*all patients on RRT*



## Adjusted prevalence over time

*all patients on RRT*



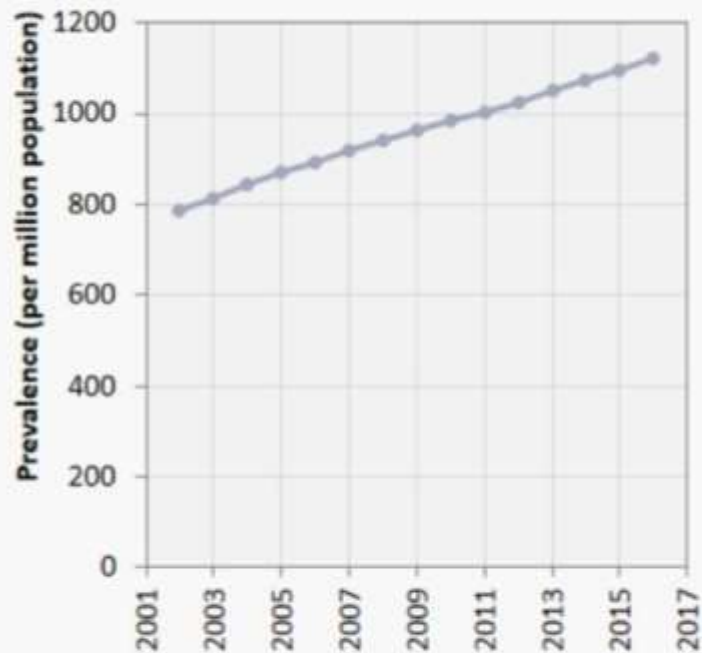


# Prevalent patients on RRT

*last 15 years (2002-2016)*

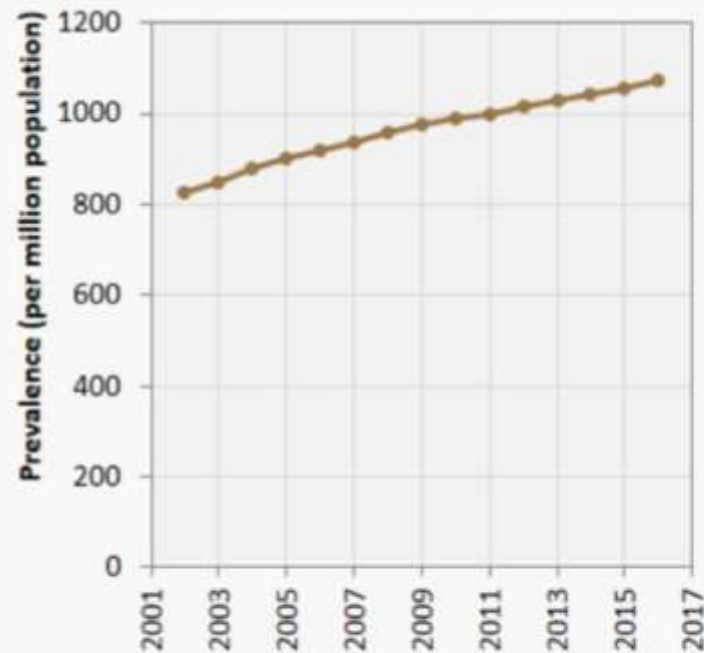
## Unadjusted prevalence over time

*all patients on RRT*



## Adjusted prevalence over time

*all patients on RRT*

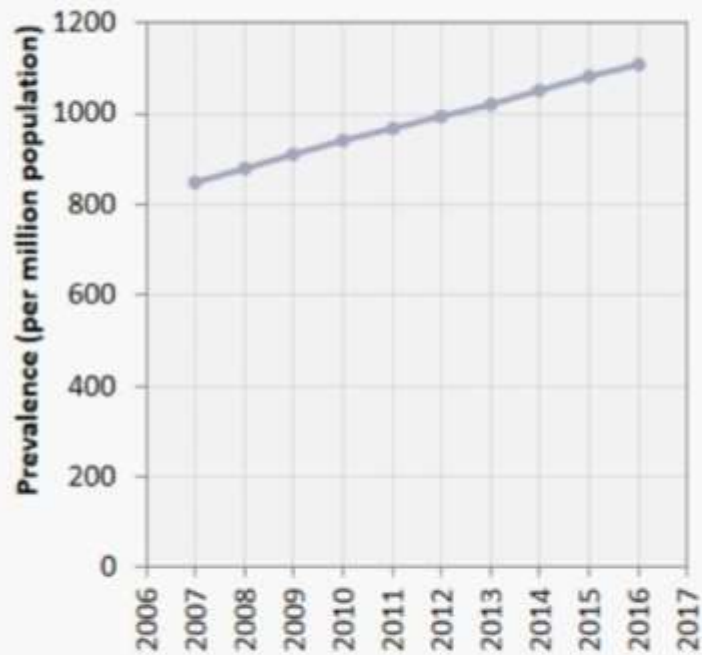


# Prevalent patients on RRT

*last 10 years (2007-2016)*

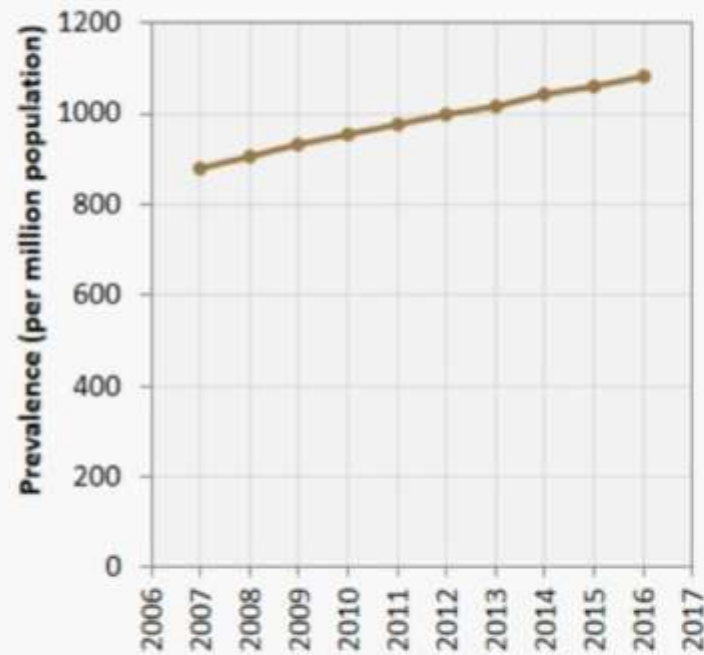
## Unadjusted prevalence over time

*all patients on RRT*



## Adjusted prevalence over time

*all patients on RRT*

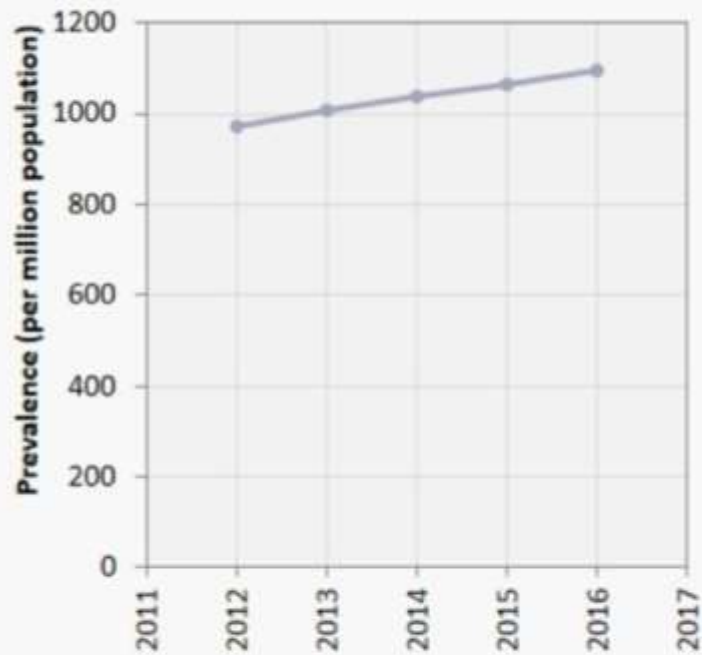


# Prevalent patients on RRT

*last 5 years (2012-2016)*

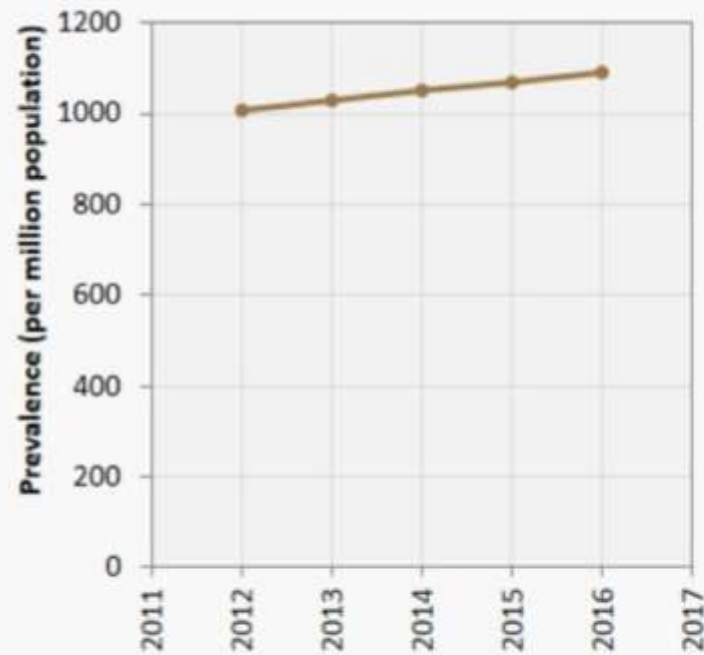
## Unadjusted prevalence over time

*all patients on RRT*



## Adjusted prevalence over time

*all patients on RRT*

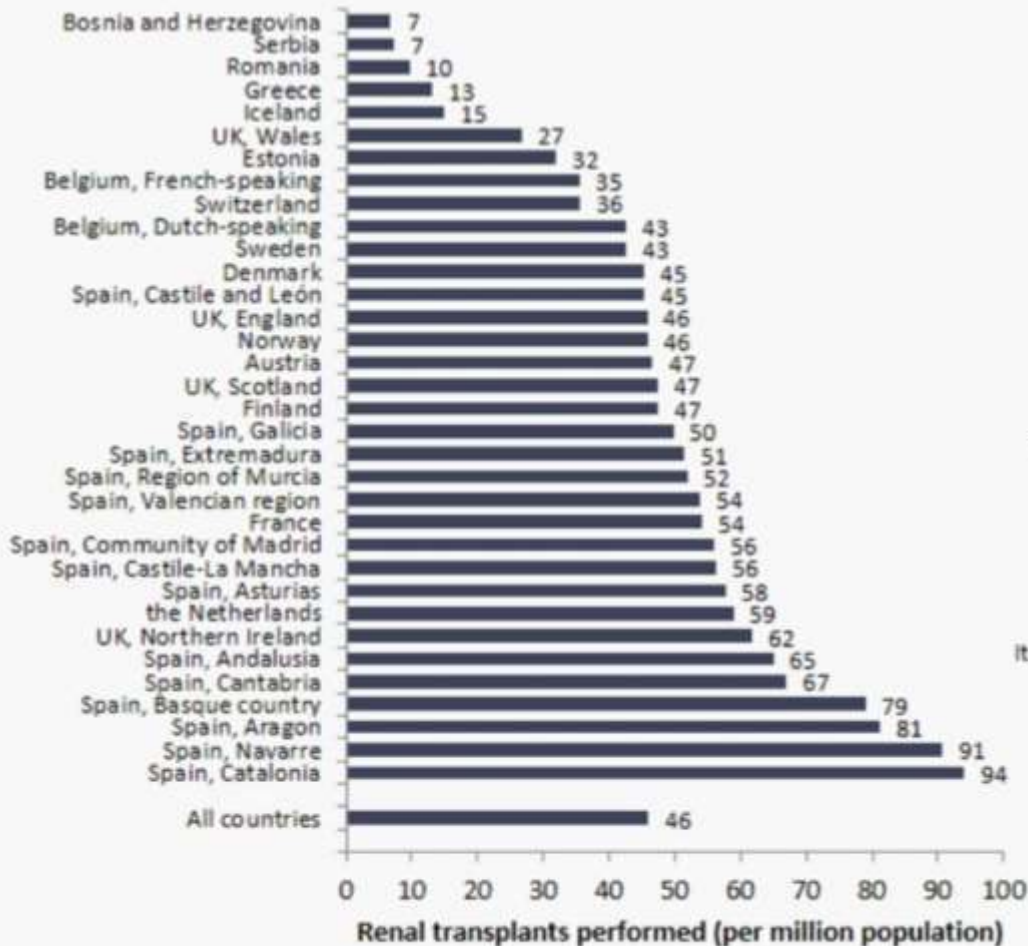


# Renal transplants performed in 2016

by country

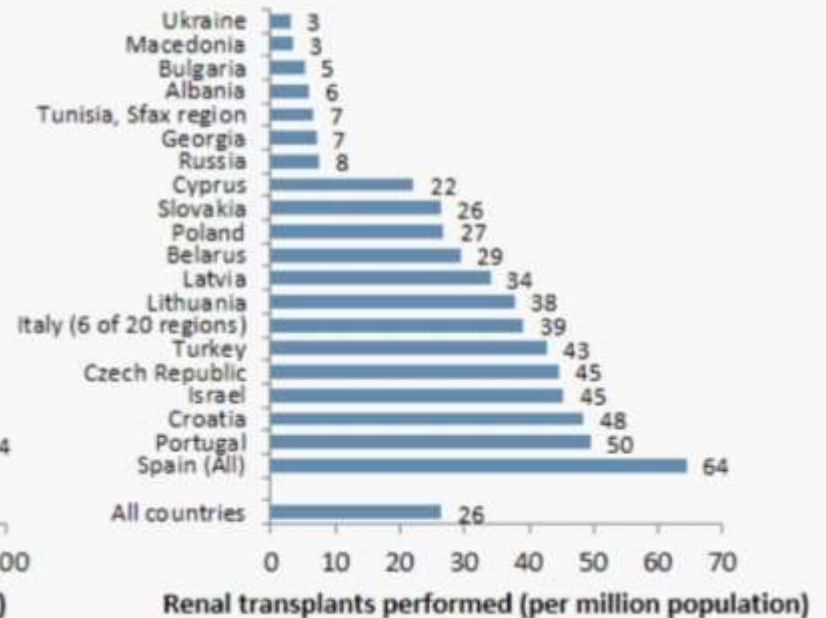
## Renal transplants performed

renal registries providing individual patient data



## Renal transplants performed

renal registries providing aggregated data



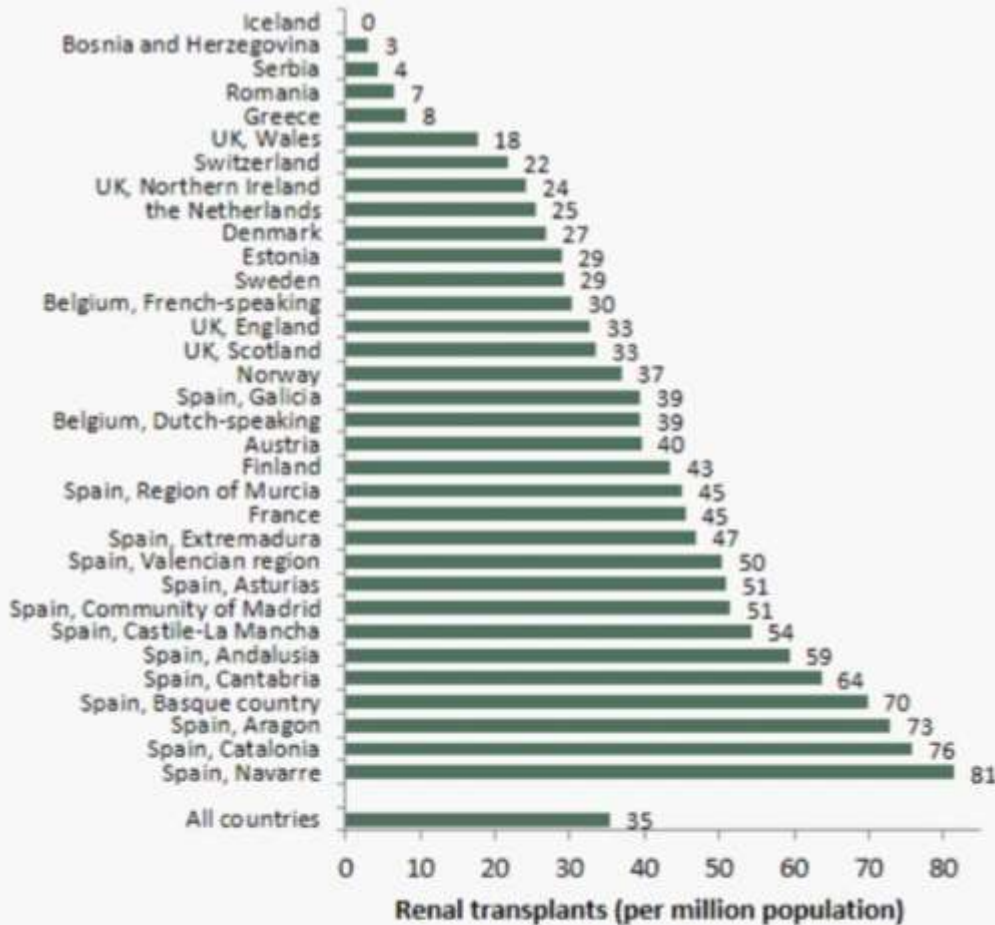


# Renal transplants performed in 2016

*transplants from deceased donors by country*

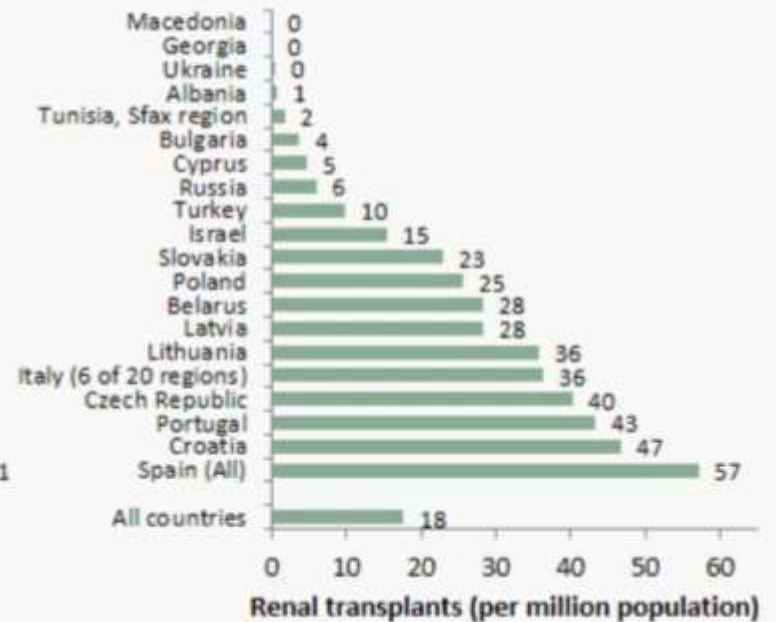
## Deceased donor transplant rate

*renal registries providing individual patient data*



## Deceased donor transplant rate

*renal registries providing aggregated data*

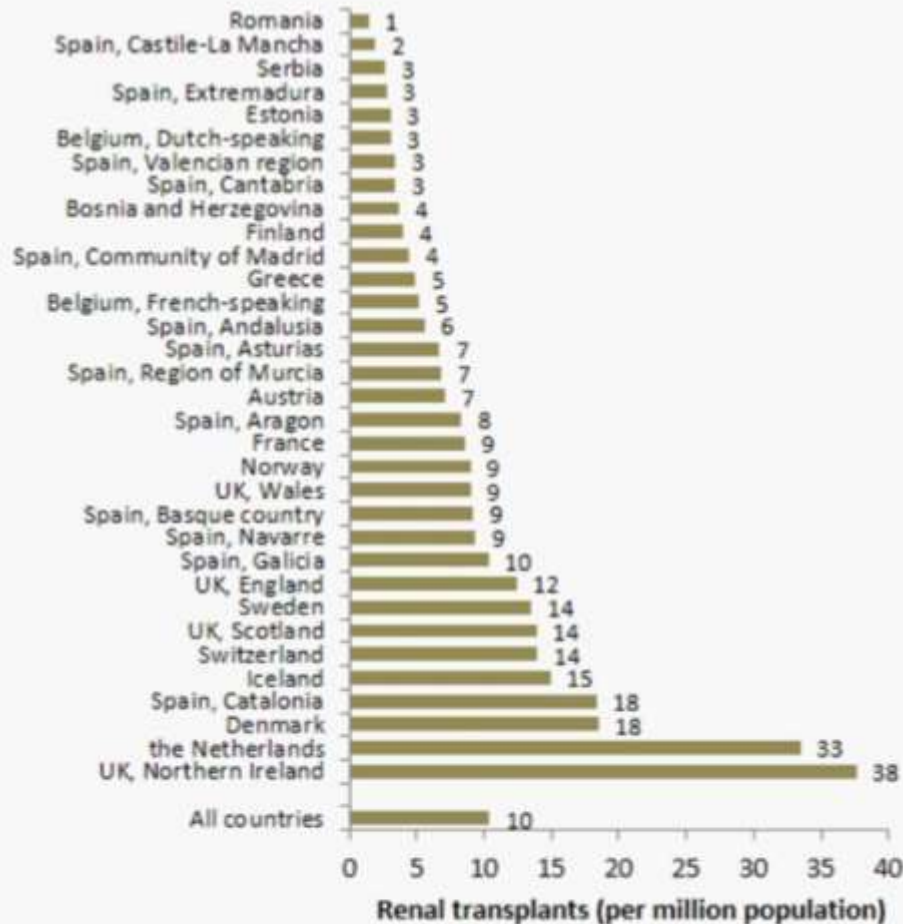


# Renal transplants performed in 2016

*transplants from living donors by country*

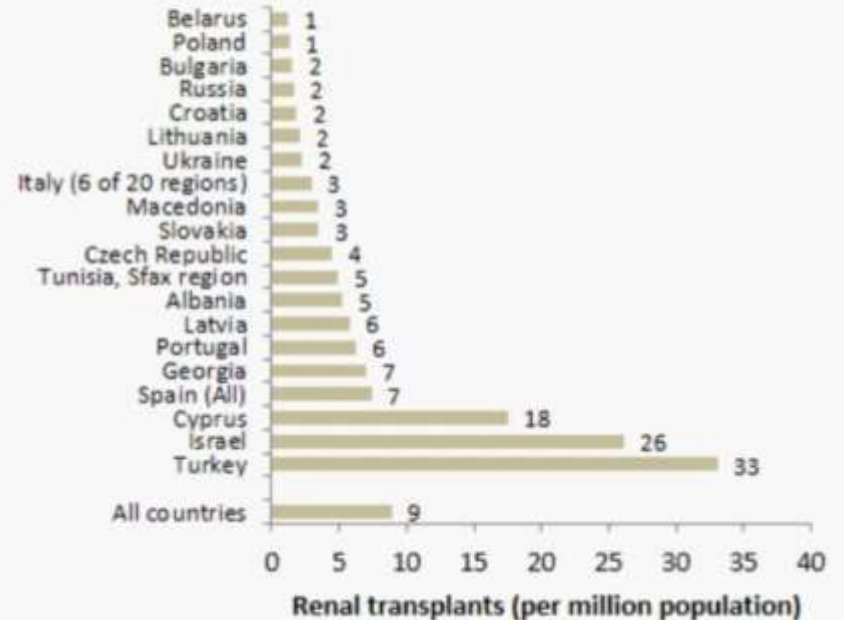
## Living donor transplant rate

*renal registries providing individual patient data*



## Living donor transplant rate

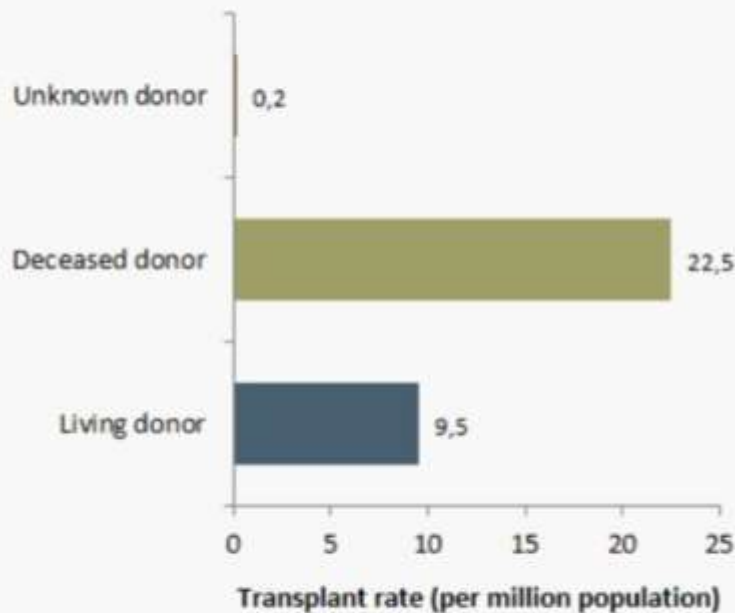
*renal registries providing aggregated data*



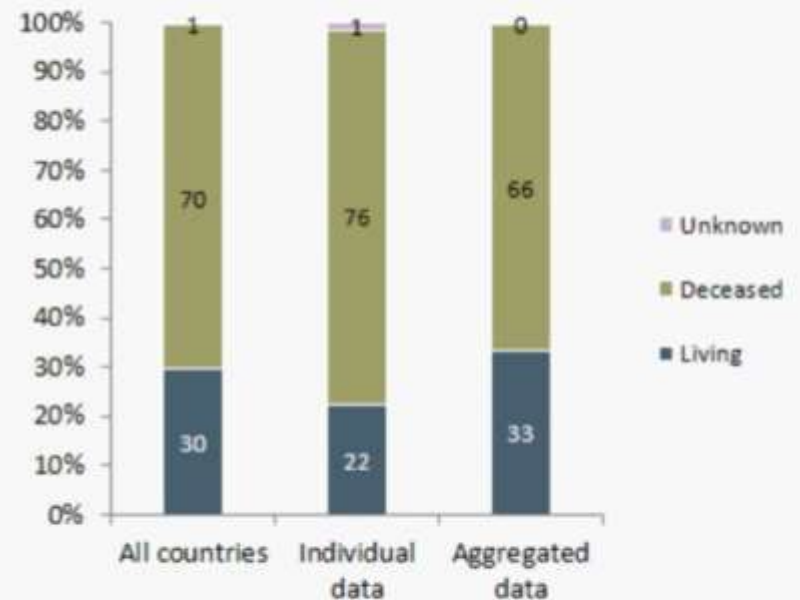
# Renal transplants performed in 2016

*by donor type*

**Renal transplants by donor type**  
*for all registries*



**Renal transplants by donor type**  
*by type of data provided by registry*



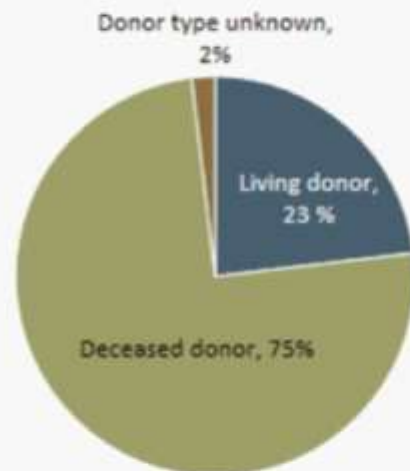
# Renal transplants performed in 2016

*by donor type*

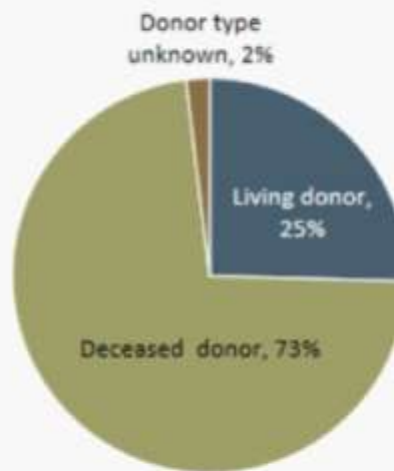
## Renal transplants by donor type

*patients from registries providing individual patient data only*

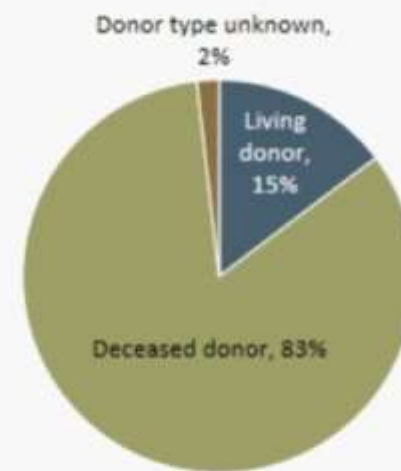
**all patients**



**patients younger than 65 years of age on transplantation**



**patients aged 65 years or older on transplantation**



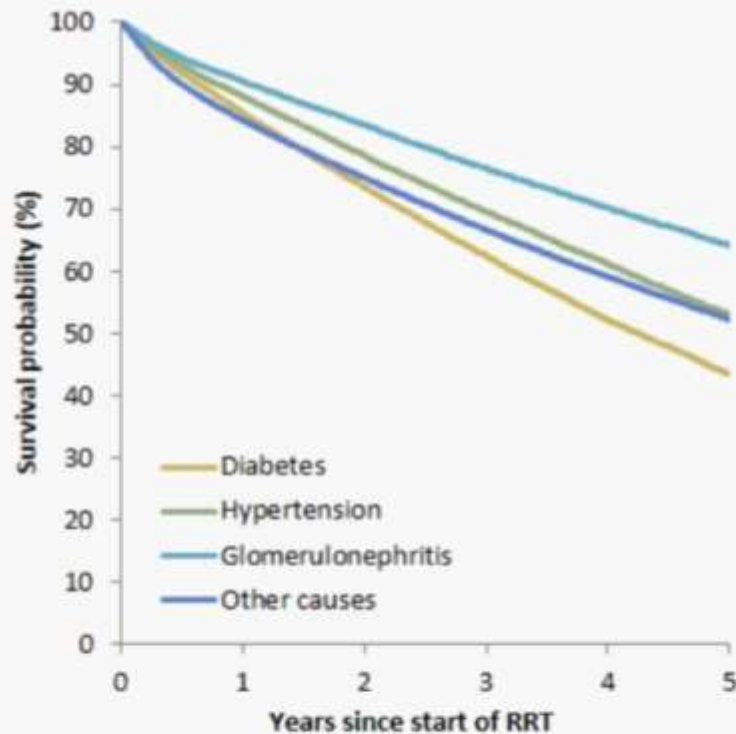


# Survival probability cohort 2007-2011

*by primary renal disease*

## Adjusted patient survival by primary renal disease Incident RRT patients

*from day 1, adjusted for age and gender*



*Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).*

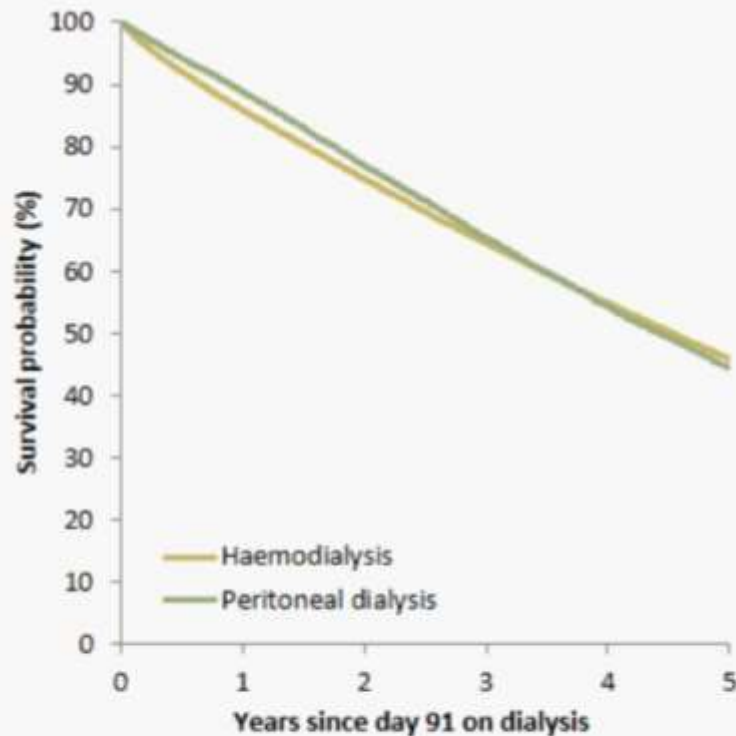
*Cox regression model was used to calculate survival probabilities.*

# Survival probability cohort 2007-2011

*by dialysis modality*

## Adjusted patient survival by modality Incident dialysis patients

*from day 91, adjusted for age, gender, and primary renal disease*



*Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).*

*Cox regression model was used to calculate survival probabilities.*

# Survival probability cohort 2007-2011

by kidney donor

## Adjusted patient survival by donor type Patients receiving a first kidney transplant

*from day of transplant, adjusted for age, gender, and primary renal disease*



*Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).*

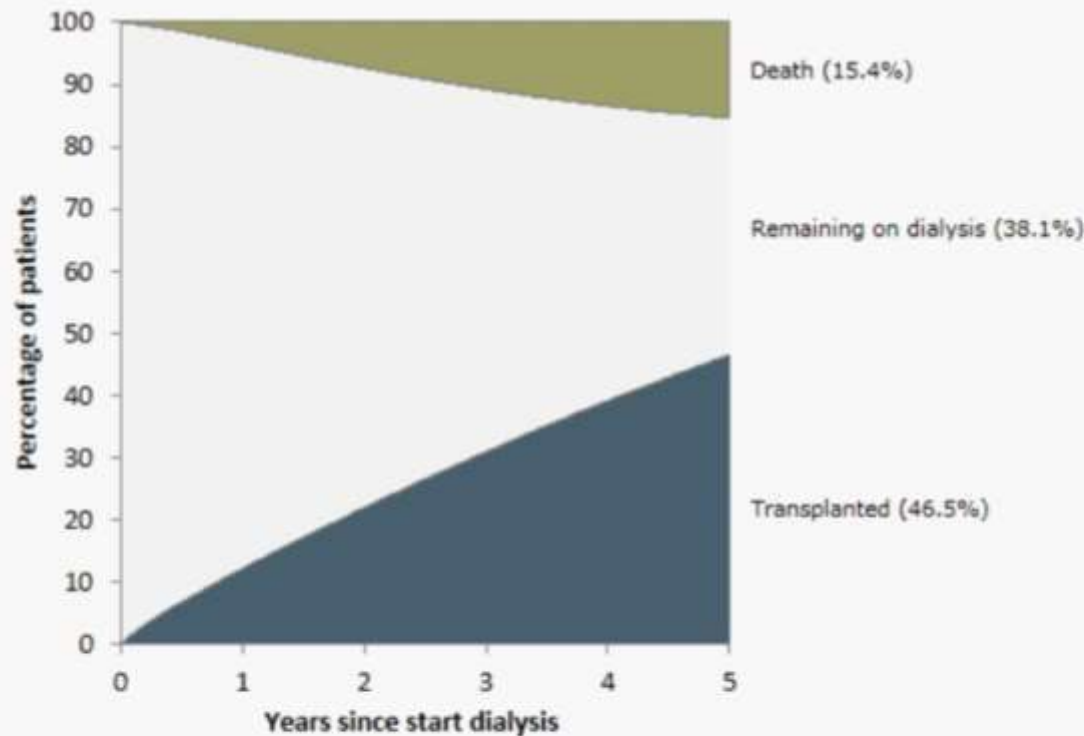
*Cox regression model was used to calculate survival probabilities.*

# Survival probability cohort 2007-2011

*by modality*

## Adjusted cumulative incidence of death and receiving a kidney transplant: Incident dialysis patients

*from day 1, adjusted for age, gender and primary renal disease*



*Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).*

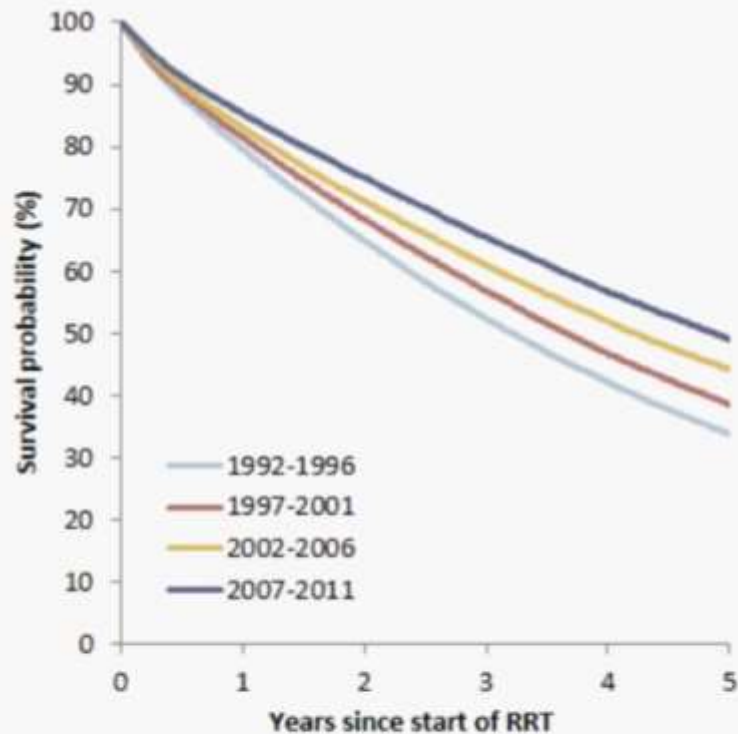
*Fine and Gray competing risk method was used to examine dialysis survival.*



# Patient survival on RRT *by cohort*

## Patient survival incident RRT patients

*adjusted for age, gender and cause of renal failure*



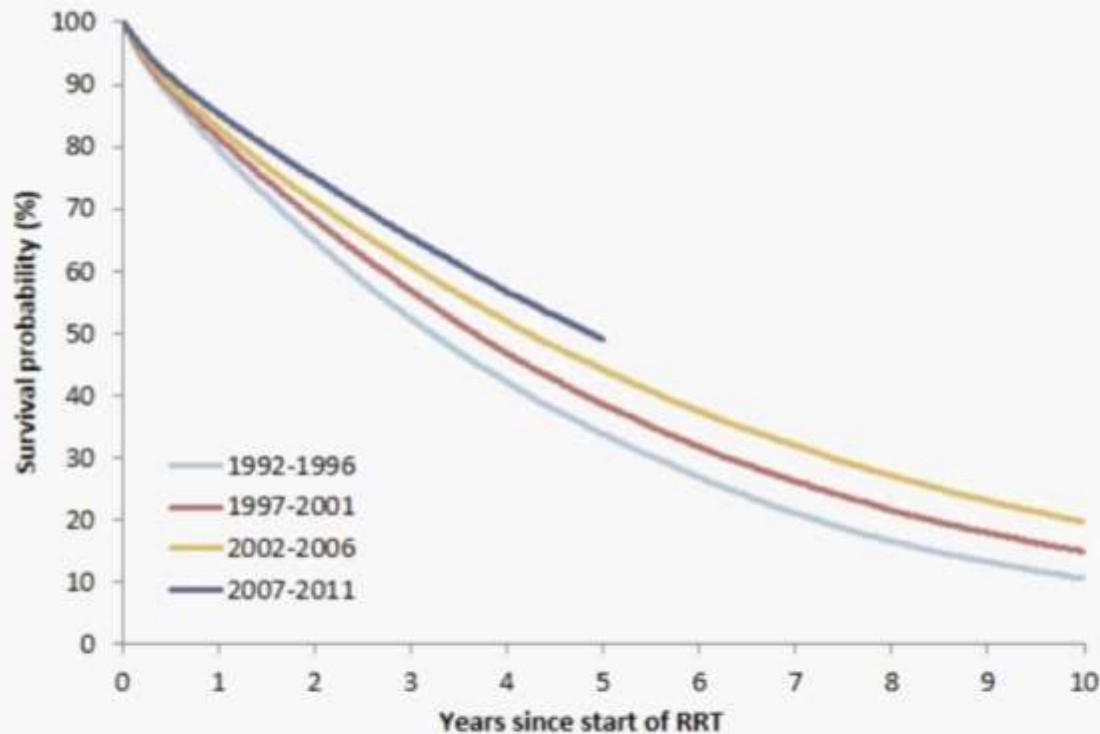
*Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).*

*Cox regression model was used to calculate survival probabilities.*

# Patient survival on RRT *by cohort*

## Patient survival incident RRT patients

*adjusted for age, gender and cause of renal failure*



*Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).*

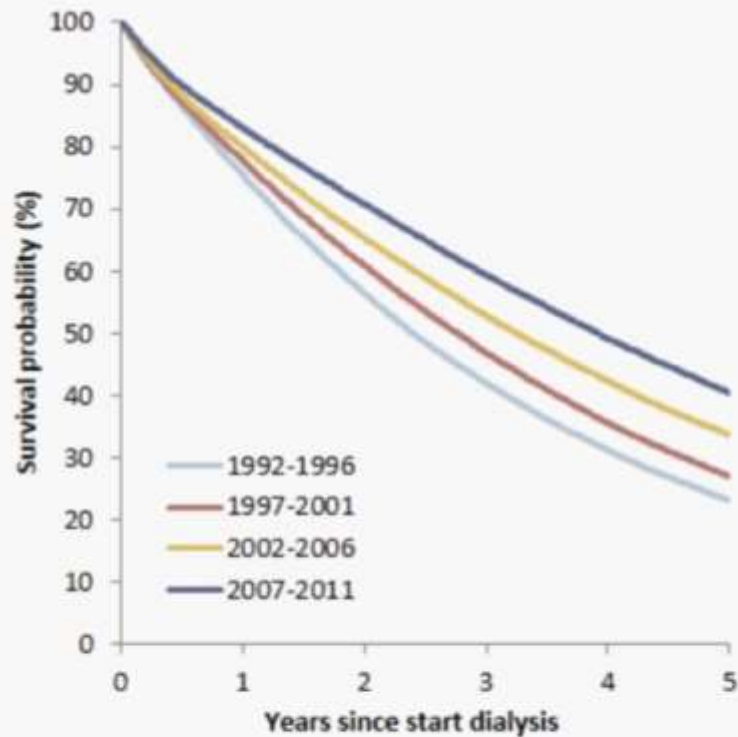
*Cox regression model was used to calculate survival probabilities.*

# Patient survival on dialysis

*by cohort*

## Patient survival incident dialysis patients

*adjusted for age, gender and cause of renal failure*



*Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).*

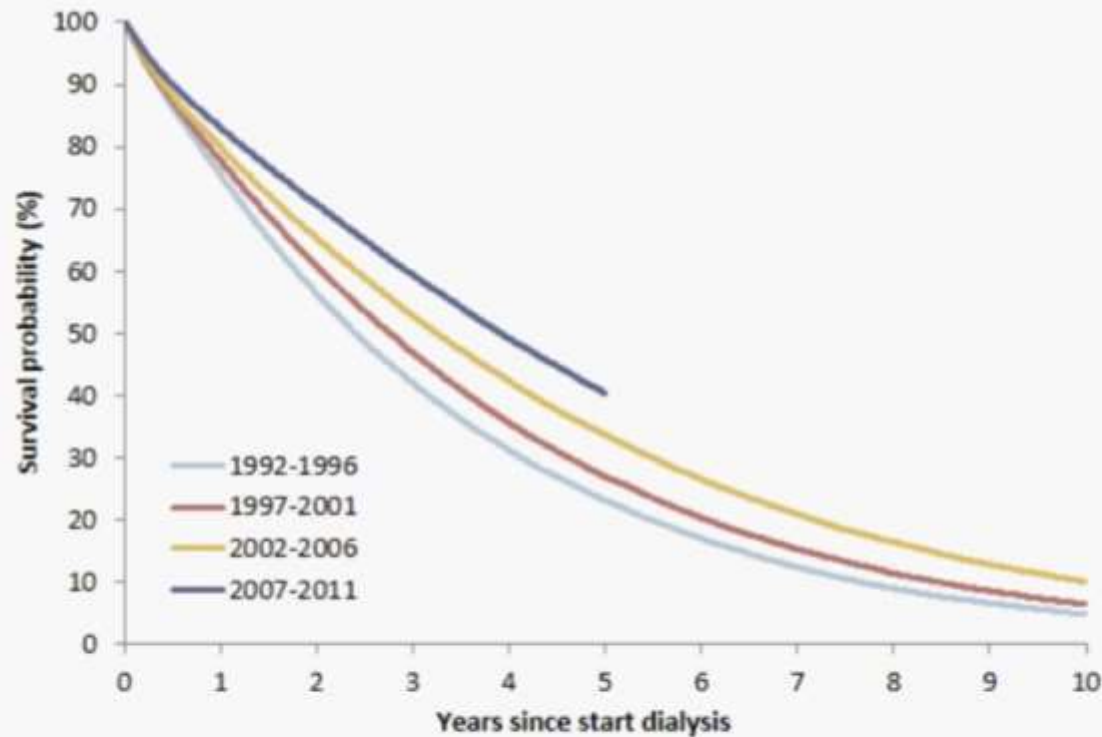
*Cox regression model was used to calculate survival probabilities.*

# Patient survival on dialysis

*by cohort*

## Patient survival incident dialysis patients

*adjusted for age, gender and cause of renal failure*



*Survival probabilities were adjusted for fixed values for age (67 years), gender (63% men), and the primary renal disease distribution (24% diabetes mellitus, 19% hypertension / renal vascular disease, 11% glomerulonephritis and 46% other primary renal diseases).*

*Cox regression model was used to calculate survival probabilities.*

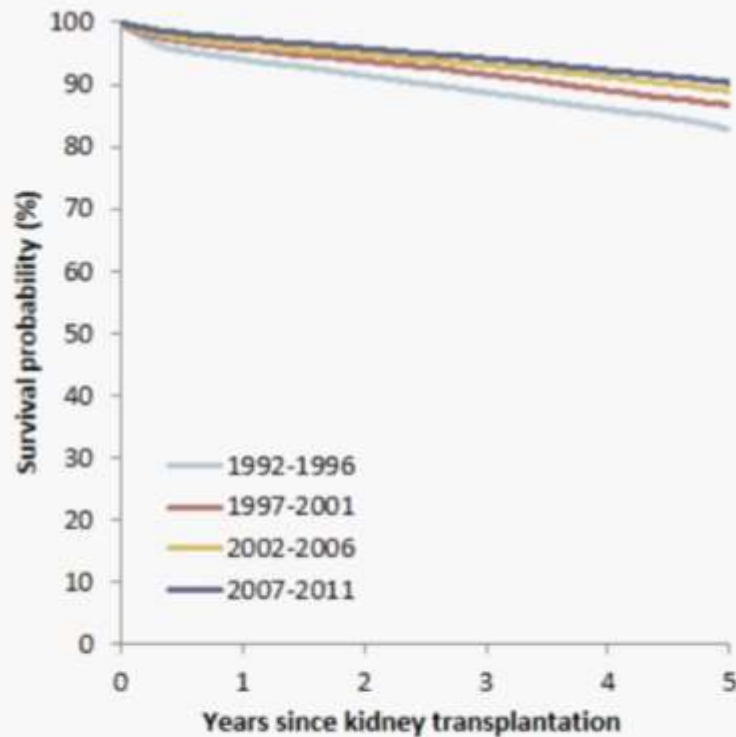


# Patient survival after kidney transplantation

*by cohort*

## Patient survival after first kidney transplantation

*adjusted for age, gender and cause of renal failure*



*Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).*

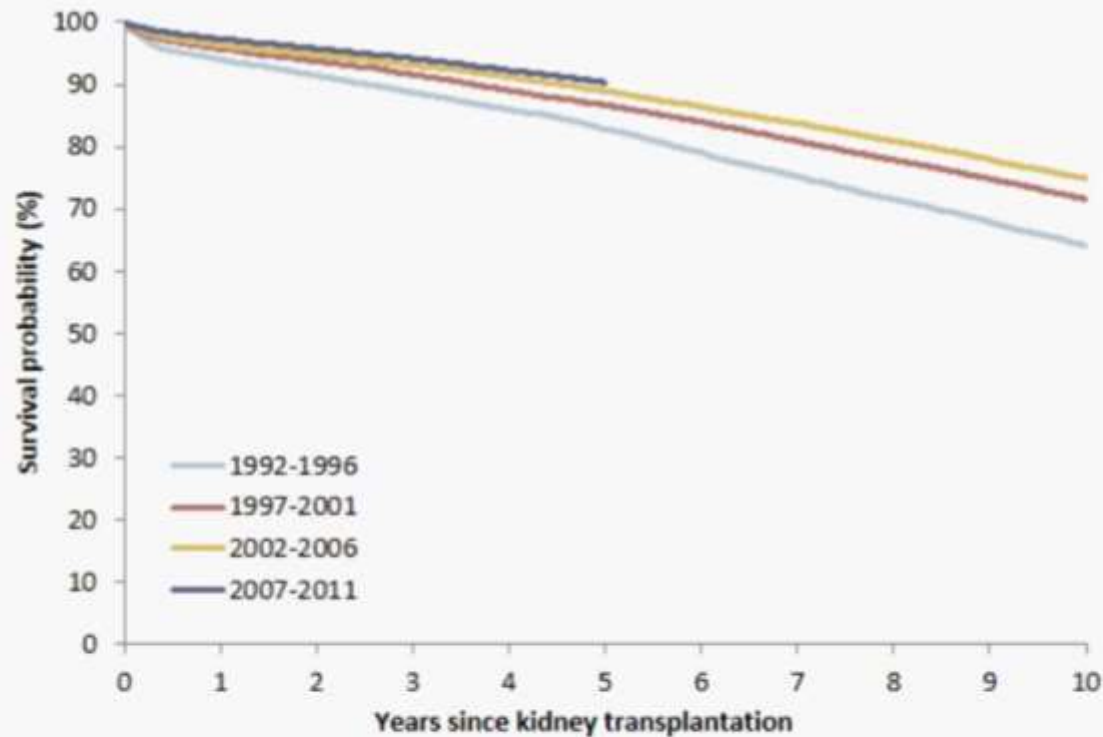
*Cox regression model was used to calculate survival probabilities.*

# Patient survival after kidney transplantation

*by cohort*

## Patient survival after first kidney transplantation

*adjusted for age, gender and cause of renal failure*



*Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).*

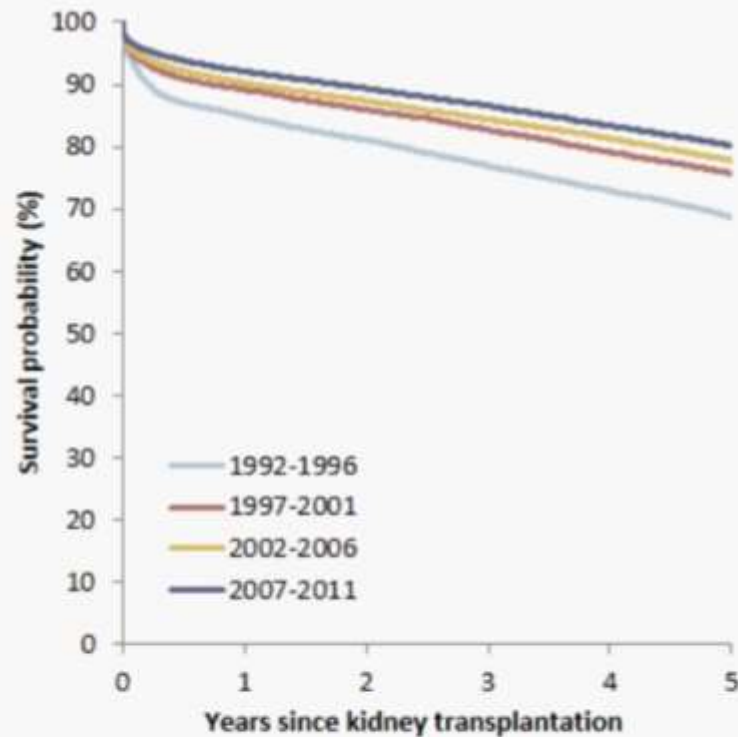
*Cox regression model was used to calculate survival probabilities.*

# Graft survival after kidney transplantation

*by cohort*

## Graft survival after first kidney transplantation

*adjusted for age, gender and cause of renal failure*



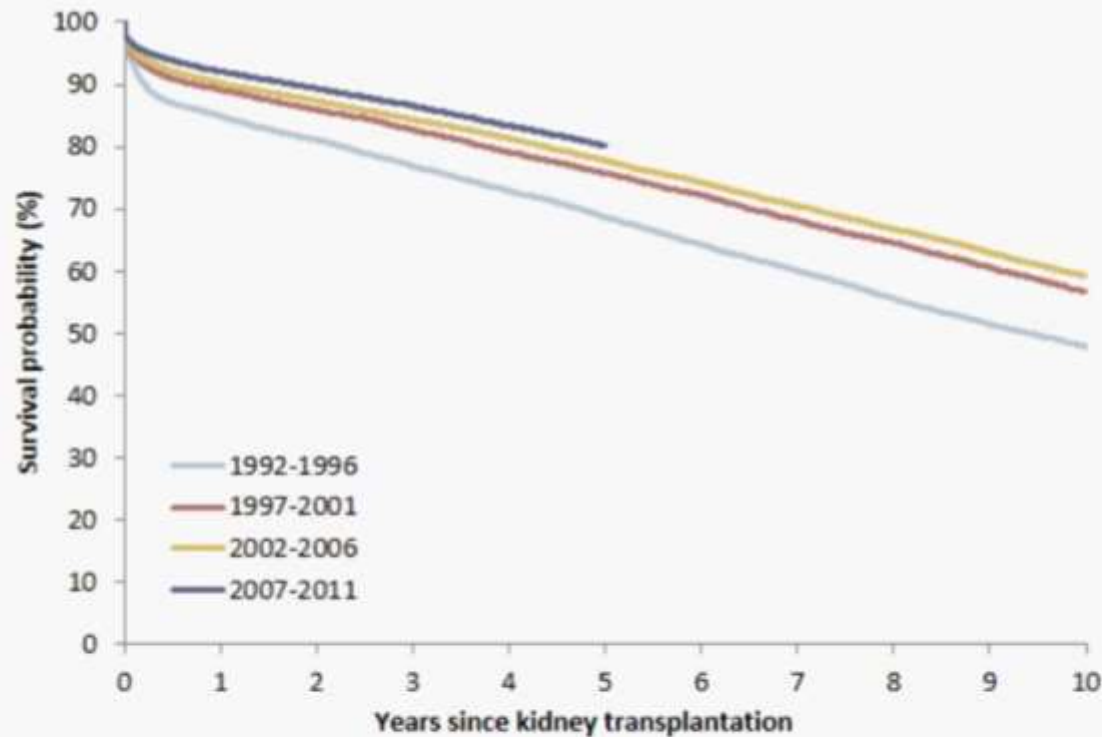
*Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).*

*Cox regression model was used to calculate survival probabilities.*

# Graft survival after kidney transplantation

*by cohort*

Graft survival  
after first kidney transplantation  
*adjusted for age, gender and cause of renal failure*



*Survival probabilities were adjusted for fixed values for age (50 years), gender (63% men), and the primary renal disease distribution (14% diabetes mellitus, 10% hypertension / renal vascular disease, 23% glomerulonephritis and 53% other primary renal diseases).*

*Cox regression model was used to calculate survival probabilities.*