



Health Statistics and Comorbidity Data for the U.S.

Analyzing health statistics for persons with diagnosed and undiagnosed disease as well as comorbidity data is essential to creating accurate sales forecasts. VennHealth is an, easy-to-use and powerful Web-based tool which allows you to quickly and reliably query data for the U.S. With access to comprehensive and reliable data, you're able to gain better knowledge of your market to:

- Create precise disease definitions
- Establish the value of additional and possibly related indications or patients that may be excluded from therapy
- Create custom patient segmentation in comorbid diseases/conditions
- Determine diagnosis rates in specific patient populations

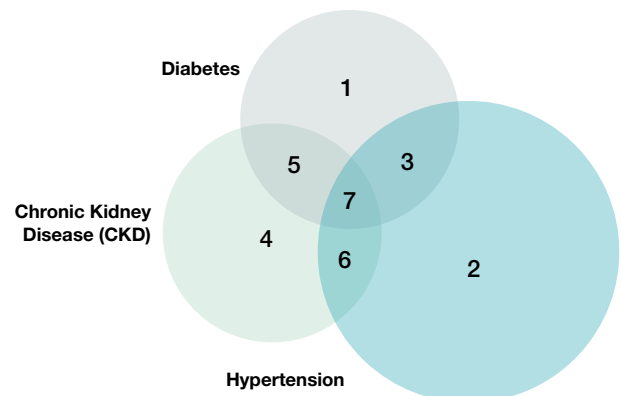
HOW CAN VENNHEALTH HELP YOU?

By analyzing detailed participant-level data using VennHealth, you're able to:

- **Craft specific populations** – Define the level or severity of the disease as well as whether the potential patient is diagnosed or has awareness of their disease.
- **Eliminate errors** – Avoid “double-counting” potential patients in your forecast for products that can be used to treat more than one disease or condition.
- **Create more useful forecasts** – Provide an accurate forecast of market potential in both exclusive and overlapping segments among a variety of conditions or diseases. Based on the most recent data, results are projected to future years for easy import into a forecasting model.

The Importance of Comorbidity

- | | |
|-----------------------------|-----------------------------------|
| 1 - Diabetes Only | 5 - CKD + Diabetes |
| 2 - Hypertension Only | 6 - Hypertension + CKD |
| 3 - Hypertension + Diabetes | 7 - Hypertension + CKD + Diabetes |
| 4 - CKD Only | |



COMPREHENSIVE DATA

Data is sourced from the National Health and Nutrition Examination Survey (NHANES). Eighteen years of historical data are available. Results are projected through 2050.

23 definable conditions in 4 main categories:

- Cardiology (8 conditions)
- Respiratory (Asthma and COPD)
- Other Diseases (Hepatitis, Depression, Renal function, Arthritides, Diabetes)
- Other Measures (select body measures and lab values)

Flexible disease definition through:

- Diagnostic threshold limits
- Inclusion or exclusion of diagnosed patients

Selected Filters (3)

Data Sets

2003-2004

2005-2006

2007-2008

2009-2010

2011-2012

2013-2014

2015-2016

2017-2020

Cardiology (1)

Hypertension

Diagnosis: Meets Criteria (All Patients)
Systolic BP Lower Limit: 140
OR
Diastolic BP Lower Limit: 90

Respiratory *No selections*

Other Diseases (2)

CKD

Diagnosis: Diagnosed + Undiagnosed (Meets Criteria)
Equation: MDRD-4
GFR Lower Limits: 15
GFR Upper Limits: 90
UACR Lower Limits: 30
UACR Upper Limits: 3000
Include Hemoglobin Limits: No

Diabetes

Populations: Diagnosed Only
Diagnosis: Diabetes

Other Measures *No selections*

Indication Search - Start typing an indication name or keyword...

Selections

History

Saved Queries

Cardiology

☐ Angina/angina pectoris
☐ Congestive heart failure
☐ Coronary heart disease
☐ C-reactive protein
☐ Dyslipidemia
☐ Hypertension
☐ Myocardial infarction
☐ Stroke

The user can choose which data sets to use in the analysis

Respiratory

Other Diseases

Other Measures

Each Section can be expanded to select or define diseases

Selected Filters

Data Sets

2003-2004

2005-2006

2007-2008

2009-2010

2011-2012

2013-2014

2015-2016

2017-2020

Cardiology *No selections*

Other Diseases *No selections*

Other Measures *No selections*

Respiratory *No selections*

CKD

Diagnosis

☐ Diagnosed Only
☐ Meets Criteria (All Patients)
☐ Undiagnosed Only (Meets Criteria)
☒ Diagnosed + Undiagnosed (Meets Criteria)

CKD criteria

GFR Equation: ☒ MDRD-4 ☐ CKD-EPI

GFR (mL/min per 1.73 m²)
Lower Limits (>=) Upper Limits (<)

UACR (mg/g)

Include Hemoglobin Limits: ☐ No ☒ Yes

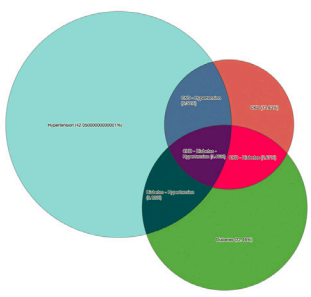
Limits: Hemoglobin

Hemoglobin Male Upper Limits (<) (g/dL) Hemoglobin Female Upper Limits (<) (g/dL)

[Set Default Values](#)

Chronic kidney disease is the loss of the ability of the kidneys to remove waste and concentrate urine without losing electrolytes. Renal failure can occur suddenly (acute renal failure), or in a slow and progressive fashion. Chronic renal failure most often results from any disease that causes gradual loss of kidney function. It can range from mild dysfunction to severe kidney failure. The disease may lead to end-stage renal disease (ESRD).

Many diseases allow the user to defined the level or severity of disease as well as whether the person is diagnosed/aware of their disease



If more than one disease is selected, the Venn diagram and table of disease combinations will be displayed.

Export to Excel

Indication	Record Count	2030	2031	2032	2033
CKD	1,893	10,669,291	10,789,823	10,905,554	11,018,485
CKD - Diabetes	987	4,453,309	4,503,780	4,549,157	4,590,330
CKD - Diabetes - Hypertension	655	2,833,612	2,877,054	2,919,202	2,959,617
CKD - Hypertension	1,042	5,289,223	5,388,616	5,485,186	5,579,891
Diabetes	3,631	16,786,452	16,922,541	17,050,074	17,170,079
Diabetes - Hypertension	1,069	4,751,497	4,800,731	4,844,603	4,884,426
Hypertension	5,923	31,896,477	32,227,634	32,542,606	32,844,827
		76,679,861	77,510,179	78,296,382	79,047,655