



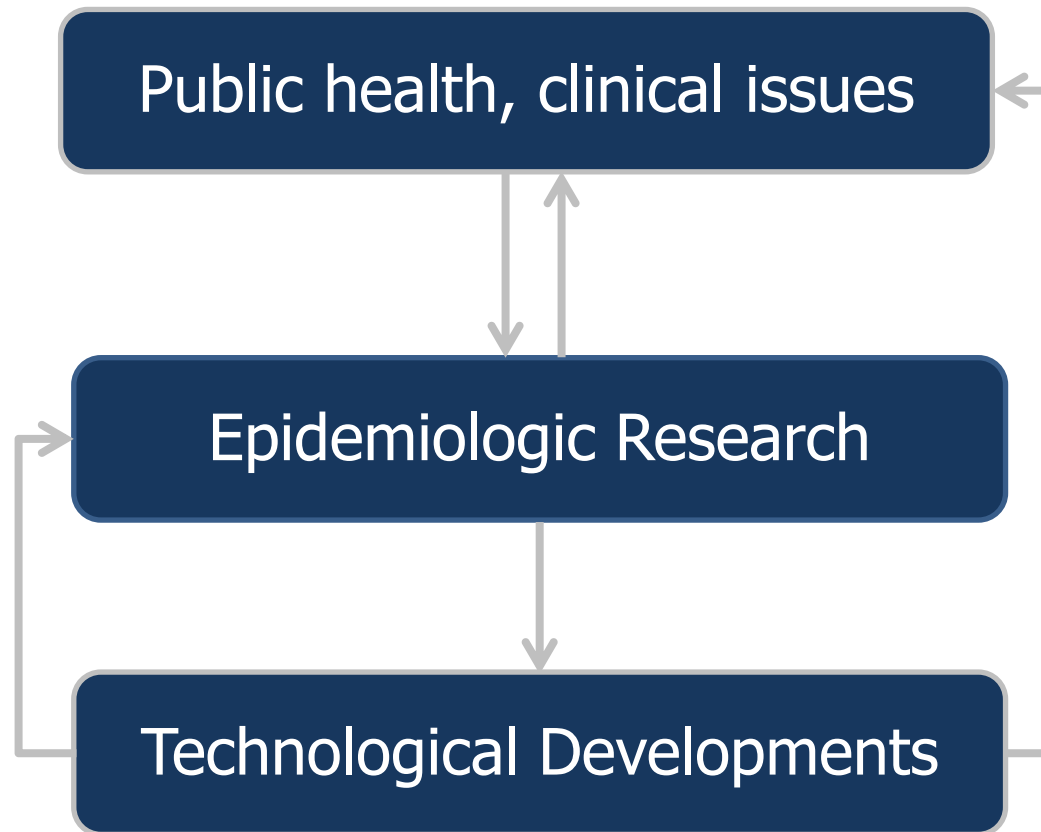
SHIP

Study of Health in Pomerania

Deep phenotyping the general population

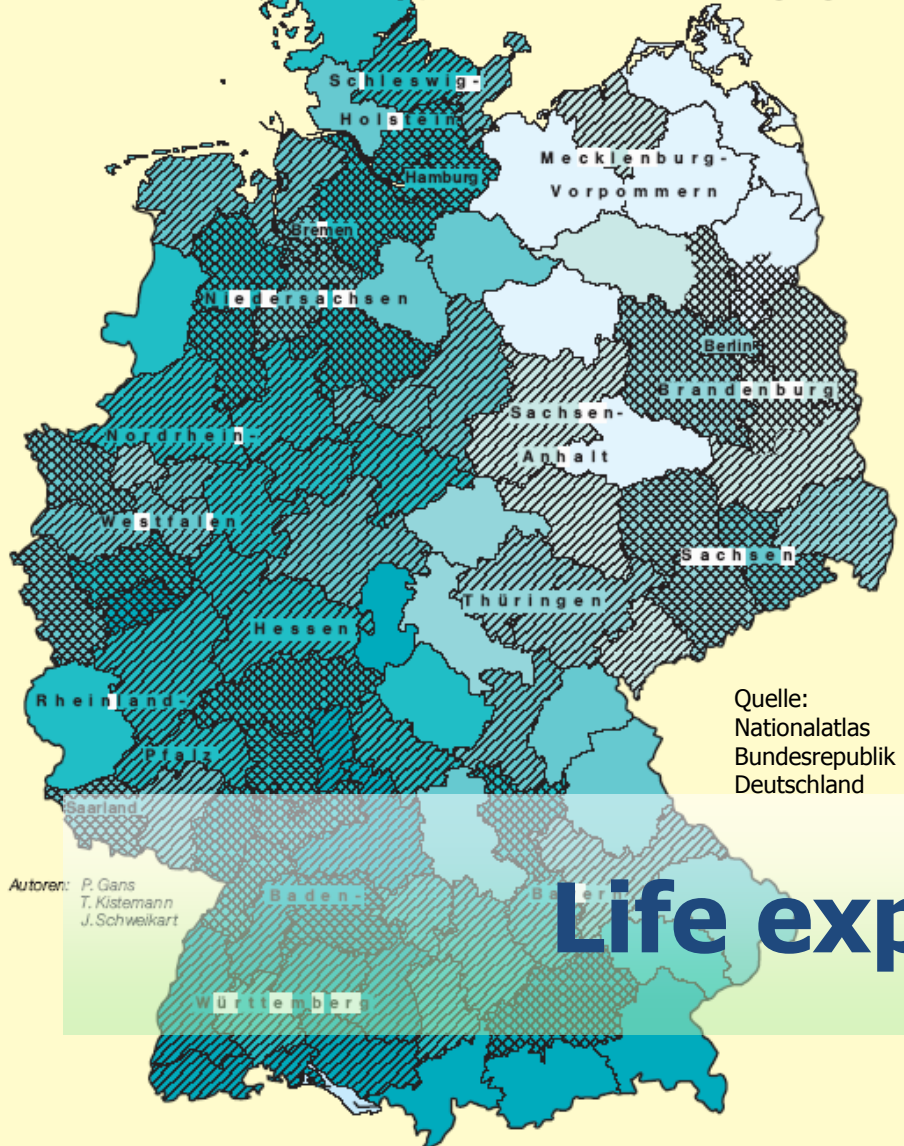
PD Dr. Dr. Carsten Oliver Schmidt
Institute for Community Medicine
University Medicine of Greifswald





5

Lebenserwartung lebendgeborener Jungen 1997 und siedlungsstrukturelle Regionstypen nach Raumordnungsregionen



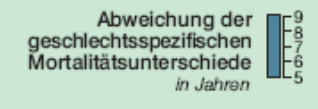
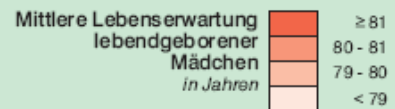
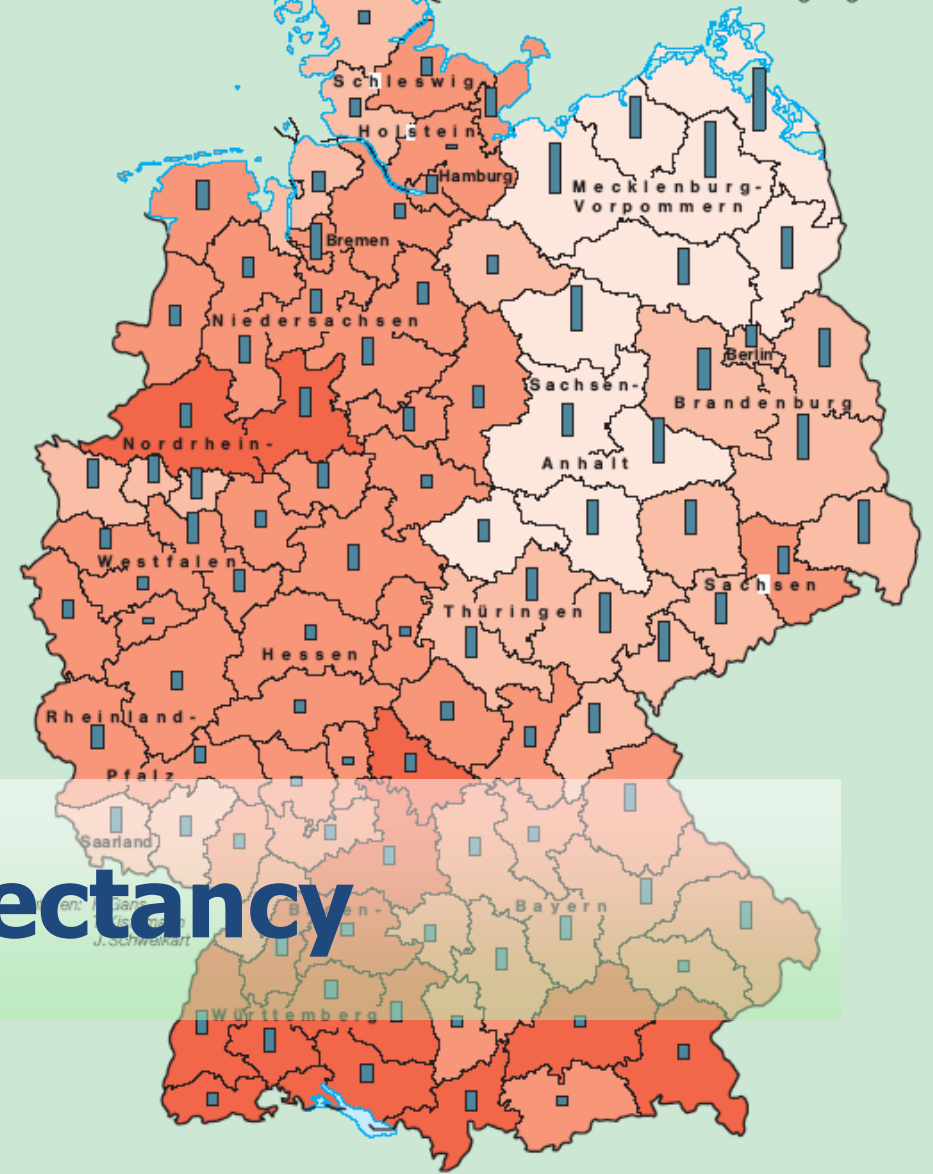
Quelle:
Nationalatlas
Bundesrepublik
Deutschland

Autoren: P. Gans
T. Kistemann
J. Schweikart

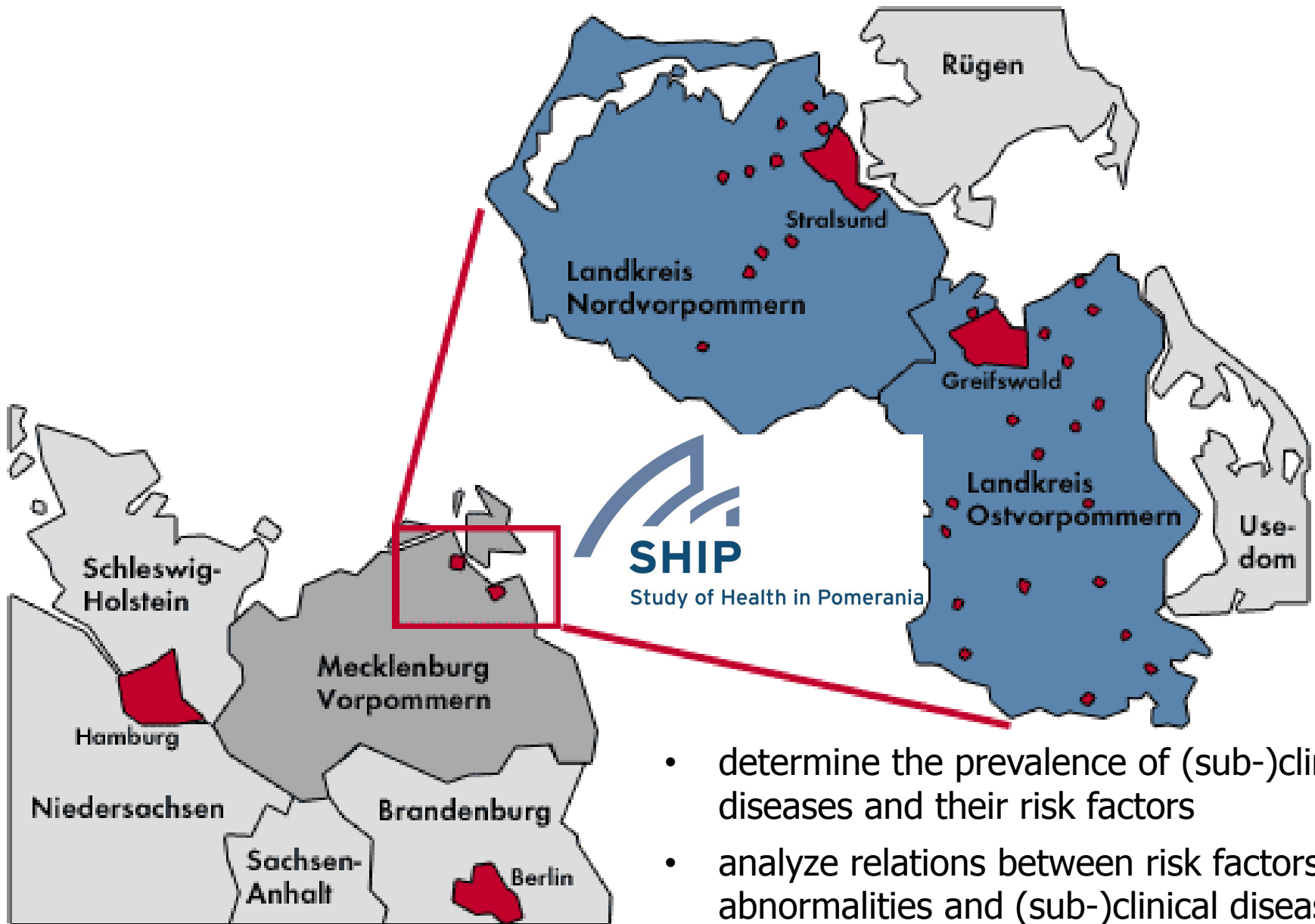


6

Lebenserwartung lebendgeborener Mädchen und geschlechtsspezifische Mortalitätsunterschiede 1997 nach Raumordnungsregionen



Life expectancy



- determine the prevalence of (sub-)clinical diseases and their risk factors
- analyze relations between risk factors, abnormalities and (sub-)clinical diseases

**Comprehensive
Examination**

Translation

Quality



Study of Health in Pomerania

**Ethics
Data safety**

**Comprehensive
Examination**

Translation

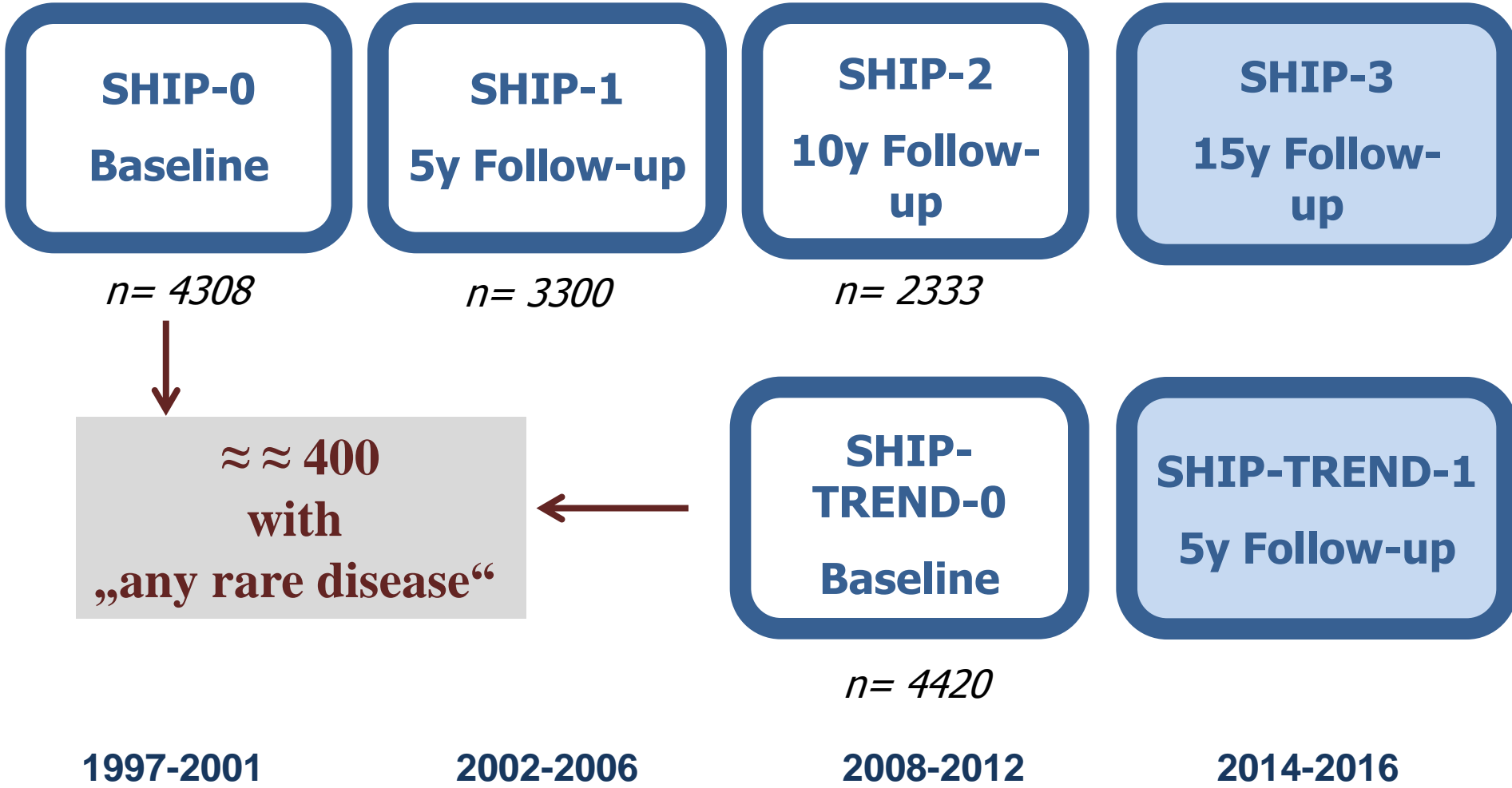
Quality

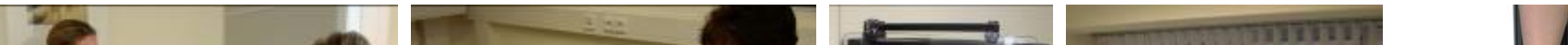


Study of Health in Pomerania

**Ethics
Data safety**

Cohorts



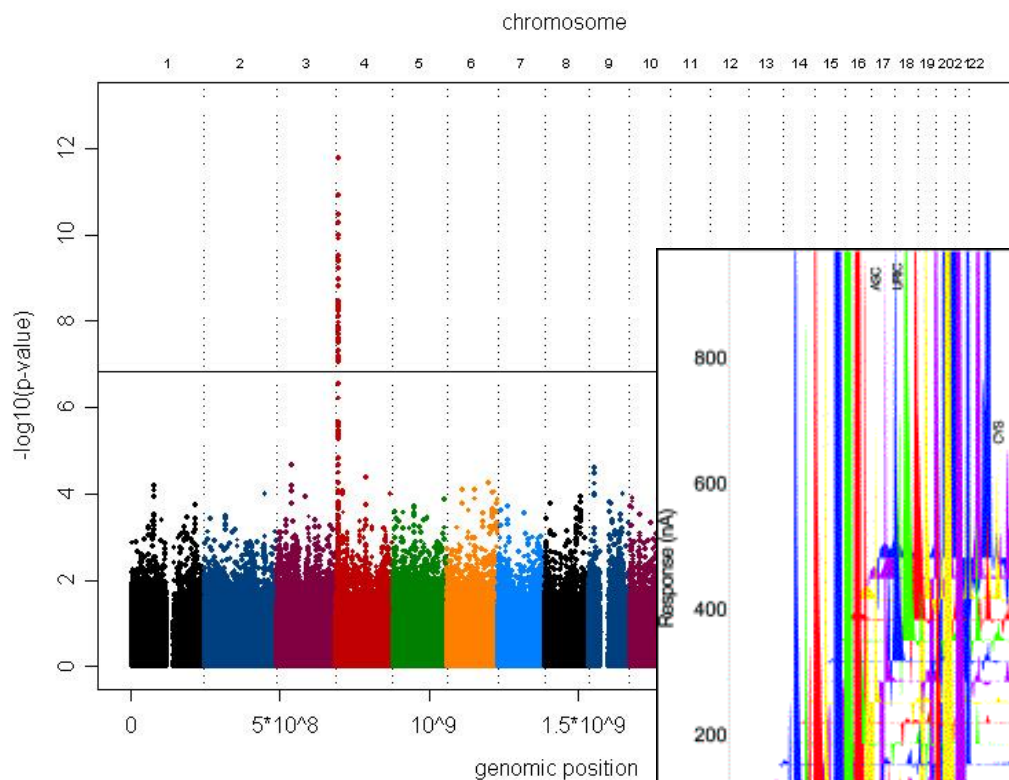


| Instrument | SHIP-0 | SHIP-1 | SHIP-2 | SHIP-TREND-0 |
|--------------------------------------|--------|--------|--------|--------------|
| Somatometric measures | × | × | × | × |
| Blood pressure | × | × | × | × |
| ECG | × | × | × | × |
| OGTT | – | – | – | × |
| Echocardiography (≥45 years) | × | × | × | × |
| Echocardiography (<45 years) | – | × | × | × |
| Echocardiography, diastolic function | – | × | × | × |
| Thyroid ultrasound | × | × | × | × |
| Carotid ultrasound (≥45 years) | × | × | × | × |
| Carotid ultrasound (<45 years) | – | × | × | × |
| Liver ultrasound | × | – | × | × |
| Gallbladder ultrasound | × | – | × | × |
| Endothelial function | – | × | × | × |
| Bodyplethysmography | – | × | × | × |
| Cardiopulmonary exercise | – | × | × | × |
| Oral examinations | × | × | × | × |
| Dermatological examination | – | × | × | × |

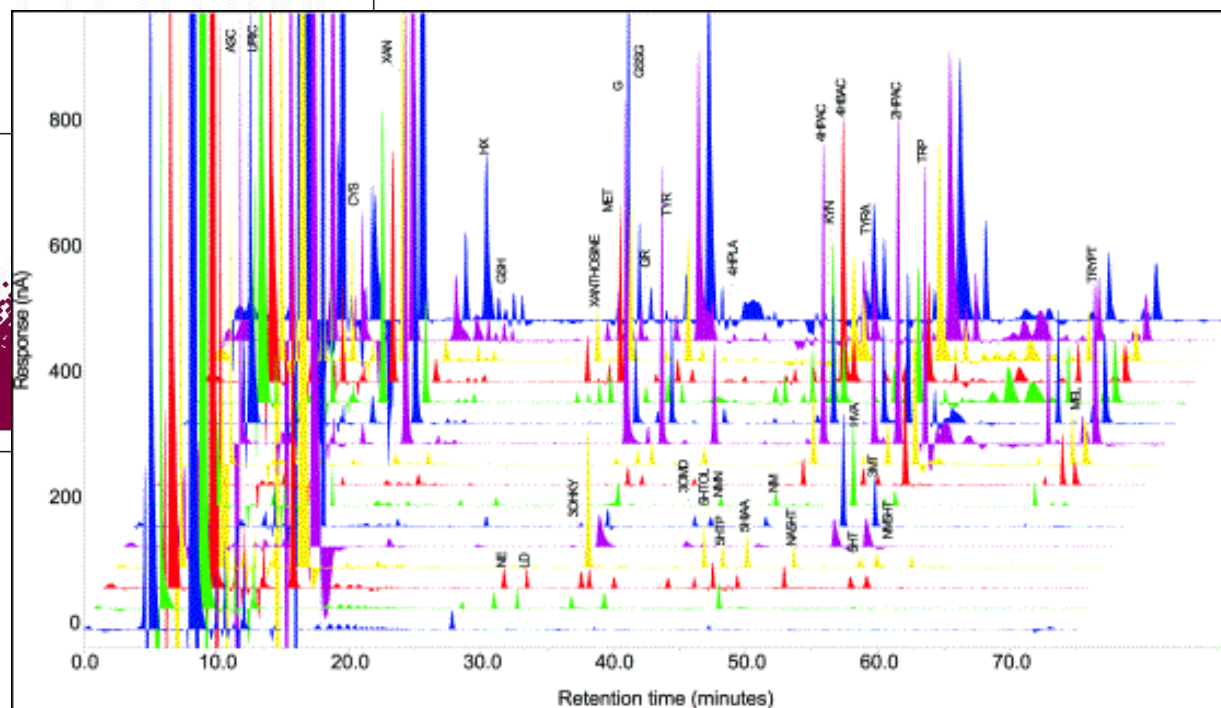




GWA uric acid

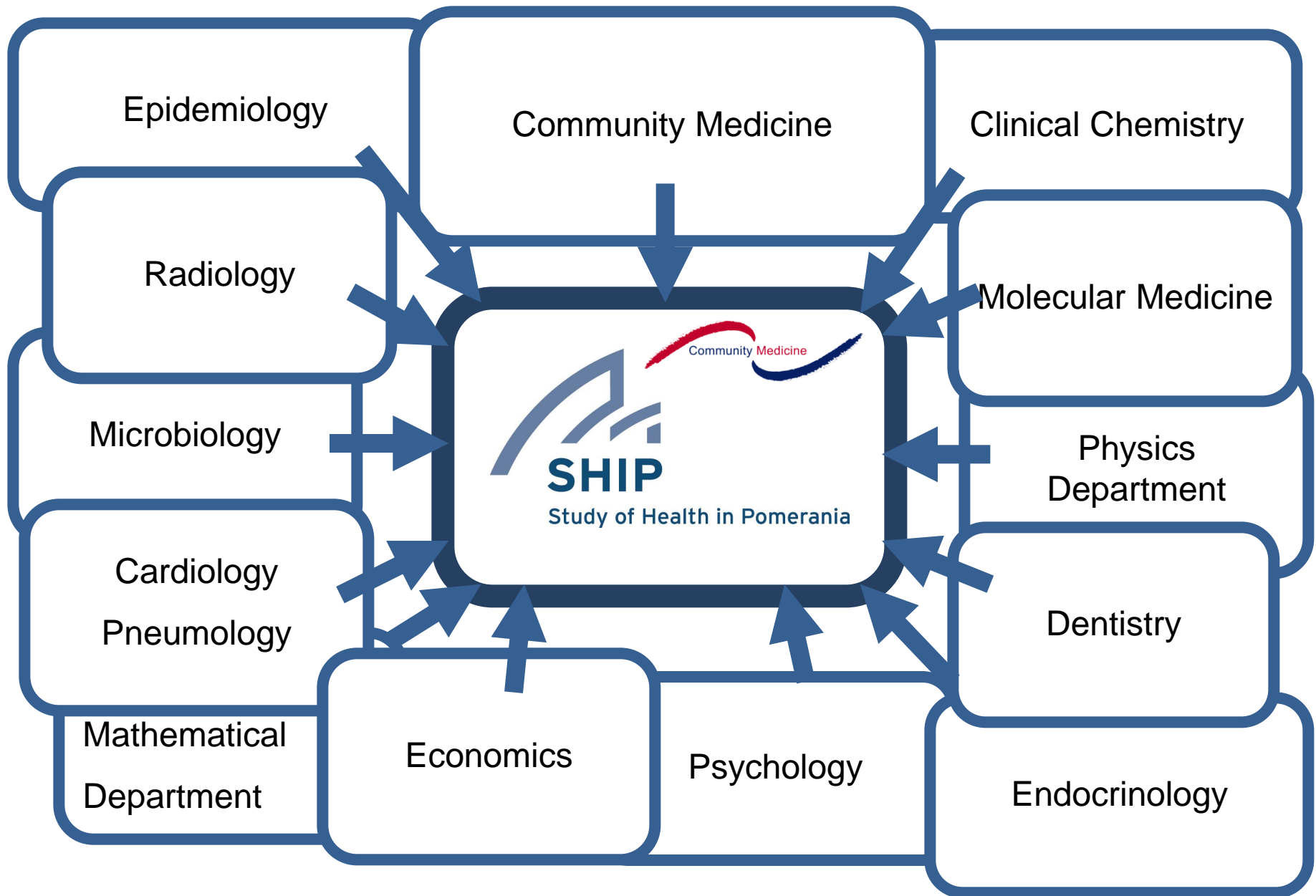


Metabolomics



Doering, et al. Nat Genetics 2008

Proteomics...



Publications

1-2 publications/ week, mean impact factor ≈ 7

- **Cardiovascular Disease** (*JAMA, Lancet, Nat Genetics, Circulation, JACC, Eur Heart J, ATVB, Hypertension*)
- **Metabolic Syndrome** (*Nature, Science, Nat Genetics, Diabetes, Diab Care, JCEM*)
- **Gastroenterology** (*Nat Genetics, Gastroenterology, Gut, Hepatology, Am J Gastroenterol*)
- **Thyroidology** (*JAMA, Arch Intern Med, Am J Hum Genetics, JCEM, Thyroid*)
- **Psychiatry** (*JAMA, Nat Genetics, Am J Psychiatry, Biol Psychiatry, Mol Psychiatry*)
- **Dentistry** (*Diab Care, Dent Res, J Clin Periodontol, Thromb Haemost, J Hypertens*)
- **Haematology & Oncology** (*Nat Genetics, Am J Hum Genetics*)
- **Neurology** (*Lancet, Arch Intern Med, Stroke*)
- **Pneumology** (*Nat Genetics, Eur Respiratory J, Chest*)
- **Nephrology** (*Nat Genetics, J Am Soc Nephrol, Kidney Int*)
- **Epidemiology** (*Int J Epidemiol, Am J Epidemiol, J Clin Epidemiol, Eur J Epidemiol*)



Transferstelle für Daten- und Biomaterialienmanagement

Mein Profil

Meine Anträge

Hilfe

Abmelden

Neuen Antrag stellen

Legen Sie hier einen neuen Antrag an. Wählen Sie dazu eine Kohorte aus und geben Sie einen Titel für Ihr Projekt ein. Sollte der Titel noch nicht feststehen, geben Sie bitte einen vorläufigen Arbeitstitel an.

BITTE BEACHTEN SIE:

SHIP-2 und SHIP-Trend befinden sich noch in der laufenden Datenerhebung. Die Variablen können schon eingesehen aber vor Abschluss der Datenerhebung noch nicht regulär beantragt werden!
Datennutzungsanträge, die SHIP-2/SHIP Trend Variablen umfassen, werden, außer in streng begründeten Ausnahmefällen nach vorheriger Absprache mit dem FVCM, grundsätzlich abgelehnt.

Antrag auf Übergabe und Nutzung von Daten und/oder Probenmaterial von Probanden der Studie

Leben und Gesundheit in Vorpommern (SHiP)

- SHIP-AM (AKromegalie)
- SHIP-DM (Diabetes mellitus)

Survey of Neonates in Pomerania (SNiP)

- SNiP

Antrag auf ein Assoziiertes Projekt im Rahmen der Ganzkörper-MRT-Untersuchung der Studie "Leben und Gesundheit in Vorpommern" (SHiP)

- SHiP-2
- SHiP-TREND

Titel:

Pain Patterns in the General Population

Antrag erstellen

Abbrechen

ADMINISTRATION



<http://www.medizin.uni-greifswald.de/icm/transferstelle/>

Population registry



Hospital database



Histological database



Clinical tumour registry



Panel Physicians' Association



Health insurances



**Deep
Phenotyped
Subjects**

**Diagnosed
Diseases**

**Comprehensive
Examination**

Translation

Quality



Study of Health in Pomerania

**Ethics
Data safety**



Pomerode-Blumenau

WEB- applications

Data dictionary

Proband Management

Training Certification

Data Collection

Communication structures

Quality Monitoring

Data clean up

Data Transfer

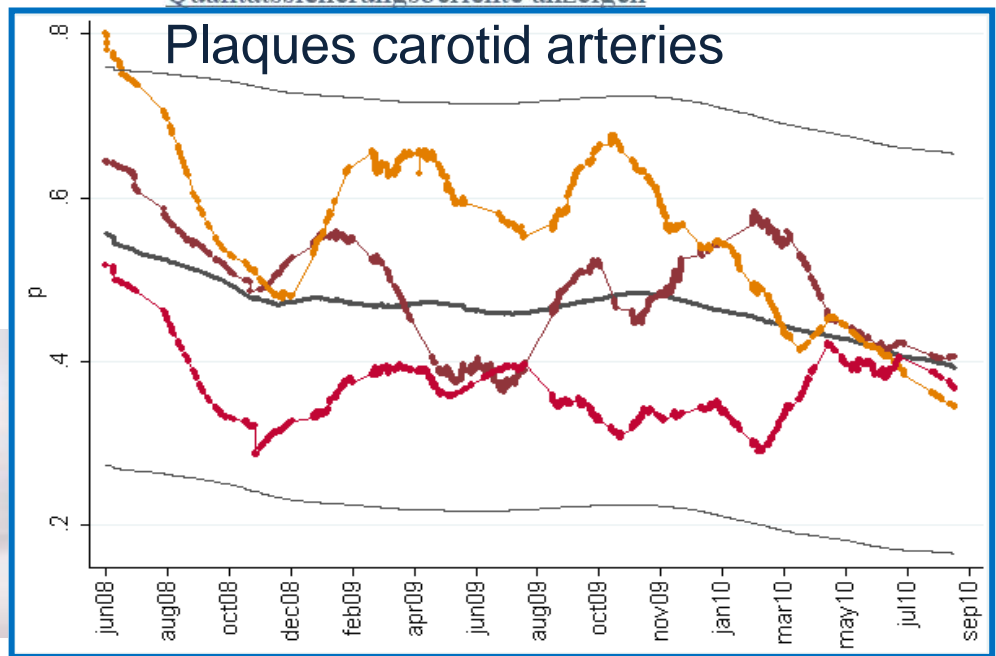
Clinical data-monitoring



SHIP Quality Report

Deutsch
Deutsch
English
Português [spezifische Übersicht anzeigen](#)
[Qualitätssicherungsberichte anzeigen](#)

Bedienungshinweise



Training Certification

Arcus

Advanced Reader Certification for Unified Studies

Training



Menu

Username: Test User

Info

Measurement 1 / 16

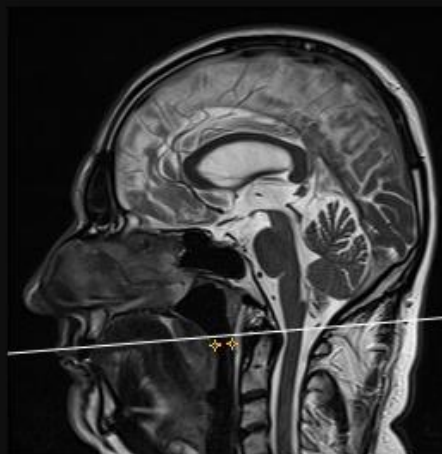
Training

| | |
|-----------------------|--------|
| Lumen diameter: | 0.5 cm |
| Lateral pharynx wall: | 1.2 cm |
| Mandibular rami: | 9.6 cm |
| Parapharyngeal fat: | 3.1 cm |
| Rear pharynx wall: | 3.1 cm |

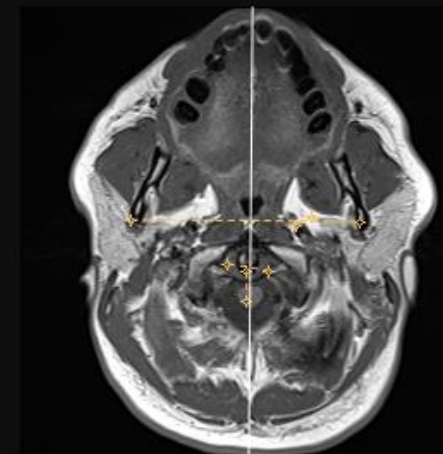
Measurements

| | |
|-----------------------|-----------|
| Lumen diameter: | 0,785 cm |
| Lateral pharynx wall: | 1,901 cm |
| Mandibular rami: | 10,391 cm |
| Parapharyngeal fat: | 0,804 cm |
| Rear pharynx wall: | 1,328 cm |

Weiter



Undo Reset image Zoom + Zoom - Up Down 6/11



Undo Reset image Zoom + Zoom - Up Down 5/40

**Comprehensive
Examination**

Translation

Quality



Study of Health in Pomerania

**Ethics
Data safety**



Subjective evaluation, finding indicates...

| | Life-threatening disease <i>n</i> (%) | Non-life-threatening disease requiring medical attention <i>n</i> (%) | Other <i>n</i> (%) | Total <i>n</i> (%) |
|--|--|--|-----------------------|-----------------------|
| Radiologist, finding indicates... | | | | |
| Life-threatening disease | 13 (41.9) | 10 (5.5) | 2 (1.3) | 25 (6.7) |
| Non-life-threatening disease requiring medical attention | 14 (45.2) | 112 (61.9) | 75 (47.2) | 201 (54.2) |
| Control check-up advisable | 4 (12.9) | 59 (32.6) | 82 (51.6) | 145 (39.1) |
| Total | 31 (100) | 181 (100) | 159 (100) | 371 |

**Comprehensive
Examination**

Translation

Quality

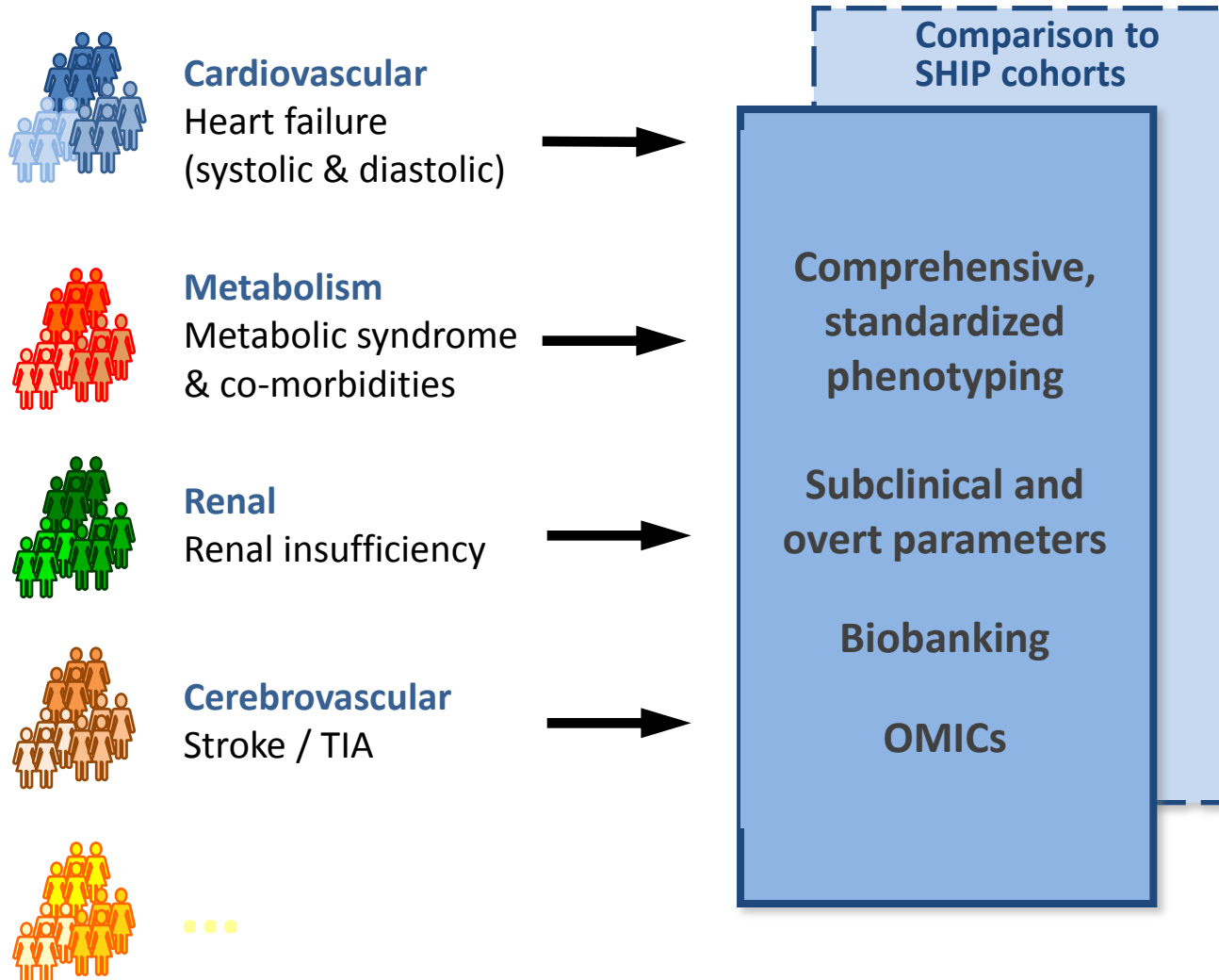
**Ethics
Data safety**



Study of Health in Pomerania

Recruitment of patient cohorts

(in accordance with methods and quality standards of SHIP)



German National Cohort (N=200.000)

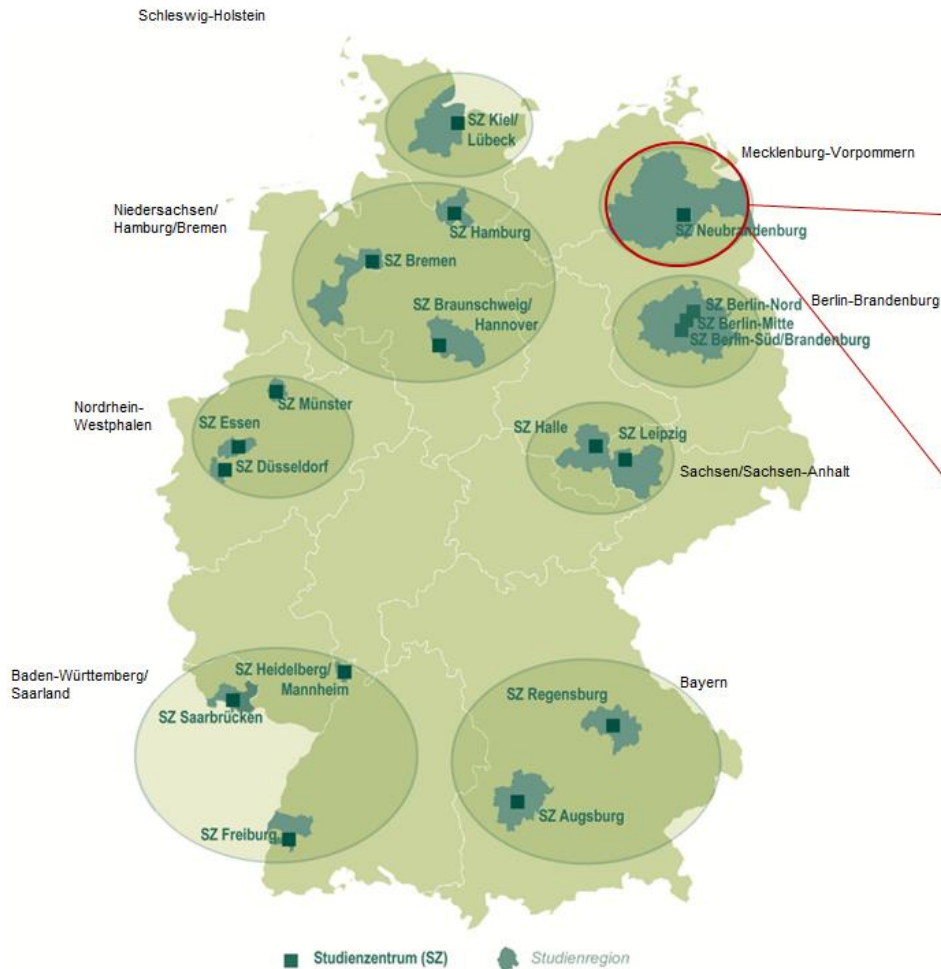


Abb 2: Studienzentrum im Dietrich Bonhoeffer Klinikum in Neubrandenburg



Abb 3: Studienzentrum im Zentrum von Neustrelitz

N=20,000

Welcome to BioSHaRE



This issue

Welcome

What's Happening
the BioSHaRE Core
Projects?

BioSHaRE Tool Roll
Out Session at
HandsOn Biobanks
Conference

Feature BioSHaRE
Publications



- The National FINRISK Study 2007 (FINRISK)
- Health 2000



- LifeGene



- LifeLines
- Prevention of RENal and Vascular ENd-stage Disease (PREVEND)



- Cork and Kerry Diabetes and Heart disease study



- National Child Development Study (NCDS)
- UK Biobank
- The European Prospective Investigation into Cancer and Nutrition (EPIC) Oxford
- Salford cohort



- Nord-Trøndelag Health Study (HUNT)
- Oslo Health Study (HUBRO)



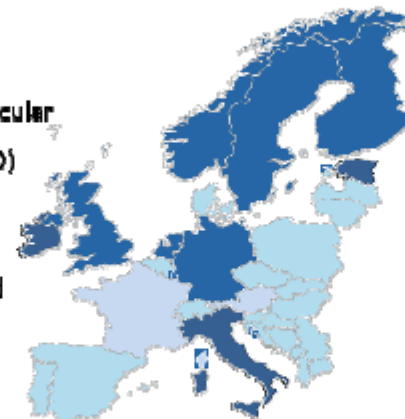
- Estonian Genome Center



- Cooperative Health Research In the Region of Augsburg, Southern Germany (KORA)
- Study of Health in Pomerania (SHIP)



- Microisolates In South Tyrol Study (MICROS)
- Collaborative Health Research In South Tyrol Study (CHRIS)
- EPIC-Turin

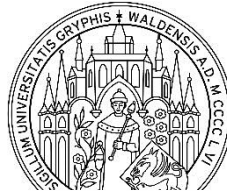


Conclusion

- Deep phenotyped populations allow for a unique opportunity to detect cases or groups of subjects
 - with a rare disease
 - at risk for a rare disease
- Combination with secondary data sources enable analysis of
 - Diagnosed vs. undiagnosed / subclinical conditions
 - Clinical pathways
 - Costs
- Pooling cohorts essential but possible
- Serious ethical and data safety implications because we study random participants not patients



Bundesministerium für Bildung und Forschung



Bundesministerium für Ernährung, Landwirtschaft und Verbraucherschutz



SHIP

Study of Health in Pomerania

