# http://jhs.jsums.edu/jhsinfo/Portals/0/images/JHS_logo_2011.jpg

**About the Data: Ancillary Study 42**

The Ancillary Studies folder contains data obtained through JHS ancillary studies. Currently, only two datasets are available. As the JHS CCDC receives data from ancillary studies, they will be included in future releases of the Vanguard Center package.

liverattenuation: This dataset contains data from the Jackson Heart Study participants

who underwent computed tomography. Fatty liver was measured by liver attenuation in Hounsfield Units (LA) and VAT was quantified volumetrically for 2,940 JHS participants from exam 2.

The research CT protocol included the heart and lower abdomen using a 16 channel multidetector computed tomography system equipped with cardiac gating (GE Healthcare Lightspeed 16 Pro, Milwaukee, Wisconsin). Quality control and image analysis was performed at a core reading center (Wake Forest University School of Medicine, WinstonSalem, NC). The protocol included scout images, one ECG gated series of the entire heart, and a series through the lower abdomen.

Reference: Jiankang Liu MD PhD, Caroline S. Fox MD MPH, DeMarc Hickson PhD,

Aurelian Bidulescu MD PhD MPH, J Jeffery. Carr MSCE, MD, and Herman A. Taylor MD MPH. *Fatty Liver, Abdominal Visceral Fat and Cardiometabolic Risk Factors: the Jackson Heart Study*. Arterioscler Thromb Vasc Biol. 2011 November. 31(11): 2715–2722. doi: 10.1161/ATVBAHA. 111.234062.

pericardialfat: This dataset contains data from 1,399 Jackson Heart Study participants underwent

computed tomographic assessment of PAT from 2007 to 2009.

The continuous CT-imaging slices of cardiac/abdominal adipose tissue were undertaken by multidetector CT (GE Healthcare Lightspeed 16 Pro, Milwaukee, WI) at the Jackson Medical Mall and were analyzed at the CT reading center at Wake Forest University. The imaging slices consist of scout images, one electrocardiogram gated series of the entire heart that will be used for assessing PAT. The estimated average whole-body effective dose for the entire protocol was 4 mSv. Scanning procedure for cardiac-gated CT scans of the coronary arteries is based on the standard protocols developed as part of the National Heart, Lung, and Blood Institute (NHLBI) Multi-Ethnic Study of Atherosclerosis (MESA) and Coronary Artery Risk Development in Young Adults (CARDIA) studies. Nearly 44–60 continuous 2.5-mm motion-free imaging slices covering the entire heart were taken with standard CT-scanning protocol. The Volume Analysis software tool (GE Healthcare, Waukesha, WI) was used to discern fat from the remainder of the heart with a threshold of −190 to −30 Hounsfield units. In this study, segmentation of PAT was achieved by isolating the PAT and heart from the thorax using specific anatomic landmarks. Pericardium was manually traced, and PAT was defined by any adipose tissue located in the pericardial sac.

Reference: Jiankang Liu MD PHD, Caroline S. Fox MD MPH, DeMarc A. Hickson PHD, Warren L. May PHD, Jingzhong Ding MD PHD, J. Jeffery Carr MSCE MD, and Herman A. Taylor MD MPH. *Pericardial Fat and Echocardiographic Measures of Cardiac Abnormalities*. Diabetes Care. 2011 Feb; 34(2): 341–346.