Receptor Operating Characteristics (ROC) curves correlating HCV-PRO score to MID anchor on SF-36 MCS/PCS and EQ-5D VAS. RESULTS: Demographics (N=74): 23% female, 81% white, 51% <50 years of age, 74% Genotype 1a, 69% IL28B non-CC status. Convergent validity: HCV-PRO total score correlations with SF-36 MCS/PCS and EQ-5D VAS scores were 0.64–0.93 (all time points). Discriminant validity: HCV-PRO total score correlations with y (single item) were 0.28. All mean scores were lower in subjects with anxiety/depression or pain/discomfort vs. subjects with no mood disturbance. Linear regression analysis of the HCV-PRO total score on EQ-5D Anxiety/Depression and Pain/Discomfort dimensions by severity of HIV-related disease was conducted using the Hospital Anxiety and Depression Scale. NCI was assessed using the Brief Screening Questionnaire for Neurocognitive Impairment (BSNQ-I). Seven (7) patients were identified. The HCV-PRO may enhance understanding of how HCV treatment impacts function/wellbeing.

PIN124 AN ASSESSMENT OF UNEMPLOYMENT AMONG PEOPLE LIVING WITH HIV/AIDS IN CANADA AND EUROPE
Cline SK1, Wang S1, Van Wyk P1, Baker EW1, Gooch KL1
1AbbVie, North Chicago, IL, USA; 2AbbVie, Maidenhead, UK
OBJECTIVES: Neurocognitive impairment (NCI), depression, and duration of unemployment have been reported as barriers to obtaining employment among people living with HIV/AIDS (FLUHWA) in the US. However, upon return to work, improvements in depression and health-related quality of life (HRQoL) have been observed. The objectives of this study were to examine the burden of unemployment among FLUHWA in Canada and Europe by (1) estimating the number of FLUHWA who are unemployed and their duration of unemployment, and (2) determining patient characteristics associated with unemployment, including NCI, depression, and HRQoL. METHODS: Data were derived from CRANUm (cSReen for Anxiety, depression, and Neurocognitive Impairment in HIV+ patients), a multicenter, cross-sectional study of FLUHWA in 14 European and 14 Canadian centers between 2010 and 2011. Depression was assessed using the Hospital Anxiety and Depression Scale. NCI was assessed using the Brief Neurocognitive Screen, which consists of the Digit-Symbol (DS) test and Trail Making tests A/B. HRQoL was assessed using the Medical Outcomes Study Health Survey (MOS-HIV). Logistic regression was utilized in order to determine if these variables, in addition to demographic and clinical variables, were associated with unemployment. RESULTS: A total of 2754 FLUHWA (mean age = 43; 62% male) were included in the analysis. Unemployment (60% [57%]) were unemployed. Compared to employed individuals, unemployed participants were more likely to be female (50%), younger (mean age 30 vs. 34 years), genotype 1a (55% vs. 35%), and more likely to have depression (33% vs. 14%). NCI was associated with unemployment (R2 = 0.4). Logistic regression analyses indicated that NCI, lower scores on the MOS-Health, and older age were independently associated with unemployment. Current depression was not associated with unemployment. CONCLUSIONS: In tandem with previous reports, results from this multinational study indicate that NCI and HRQoL are salient issues with regards to employment among FLUHWA internationally.

PIN125 VALIDATION AND PSYCHOMETRIC EVALUATION OF THE GERMAN-TRANSLATED HEPATITIS C VIRUS PATIENT REPORTED OUTCOMES (HCV-PRO) HEALTH AND WELLBEING INSTRUMENT IN GERMAN HCV-INFECTED PATIENTS TREATED WITH DIRECT ACTING ANTI-VIRALS (DAAs) WITH OR WITHOUT INTERFERON (RBV)
Anderson RT1, Baker EW1, Xie W1, Liu Y1, Diets B1, Gooch KL1
1AbbVie, North Chicago, IL, USA; 2AbbVie GmbH & Co KG, Ludwigshafen, Germany
OBJECTIVES: Chronic HCV infection and interferon-based treatments negatively impact health-related quality of life (HRQoL). The German version of the HCV-PRO, a valid, responsive, disease specific instrument for patients with HCV, was utilized in this analysis to assess the impact of HCV treatment. RESULTS: HCV-PRO total scores ranged from 0 to 100, with higher scores indicating better health states. In the German version, Cronbach’s alpha was 0.87. HCV-PRO total scores were higher in patients with higher treatment adherence (p = 0.01). Receiver operating characteristics (ROC) curves correlating HCV-PRO score to MID anchor on SF-36 MCS/PCS and EQ-5D VAS scores were 0.64–0.93 (all time points). Discriminant validity: HCV-PRO total score correlations with y (single item) were 0.28. All mean scores were lower in subjects with anxiety/depression or pain/discomfort vs. subjects with no mood disturbance. Linear regression analysis of the HCV-PRO total score on EQ-5D Anxiety/Depression and Pain/Discomfort dimensions by severity of HIV-related disease was conducted using the Hospital Anxiety and Depression Scale. NCI was assessed using the Brief Screening Questionnaire for Neurocognitive Impairment (BSNQ-I). Seven (7) patients were identified. The HCV-PRO may enhance understanding of how HCV treatment impacts function/wellbeing.

PIN126 REVISED SCORING OF THE WPAI:HEP-C IMPROVES ASSESSMENT OF MISSED WORK AND WORK IMPAIRMENT IN HCV CLINICAL TRIALS
Gilles L1, Peeters M2, Reumaut-Maunvault M3, Scott J3
1Janssen Research and Development, Beerse, Belgium; 2Janssen Infectious Diseases, Beerse, Belgium; 3Janssen Global Services, LLC, High Wycombe, UK
OBJECTIVES: Trials comparing addition of simprevir (SMV) or placebo to peginterferon alfa and ribavirin (P/A-RBV) show similar survival and significantly better outcomes for the SMV groups. Absence of SMV was associated with a higher number of patients who withdrew due to lack of efficacy or drug-related adverse events in the workforce at baseline and subsequent study visits. To appreciate movement in and among the workforce in HCV trials, we propose two alternative scores for the WPAI:HEP-C: Misused Work and Work Impairment. METHODS: A total of 711 subjects completed the WPAI:HEP-C in the QUEST1 and QUEST2 SMV trials during study visits at baseline and throughout treatment and follow-up. The WPAI:HEP-C assesses whether subjects were in the workforce during the past 7 days, and if so, number of hours missed from work due to HCV or its treatment (weekly or monthly frequency). RESULTS: Total scores for missed work and work impairment were significantly greater among subjects who withdrew from the study due to drug-related adverse events or lack of efficacy compared to those who remained in the study. CONCLUSIONS: Revision of the WPAI:HEP-C may provide improved patient-level assessment of missed work endpoints in the HCV trials (p=0.004).

INF127 ASSESSING THE FINANCIAL CONSEQUENCES OF IMMUNIZING THE FEMALE AND THE MALE VACCINATION AGENDA FOR THE CONTROL OF PARVULIFORMIS (HPV) IN GERMANY
Kotsopoulos N1, Connolly M2, Remy V2
1Unit of Pharmacoeconomics & PharmacoEconomics, Groningen, The Netherlands; 2Sanofi Pasteur MSD, Lyon, France
OBJECTIVES: It is well recognized that HPV infection causes a substantial burden in females. The infection also causes a substantial burden in males as it is associated with HPV-related cancers. Traditional economic evaluations focus only on quantifying health benefits. However, it is increasingly recognized that immunizations may generate broader benefits not captured in cost-effectiveness analysis. This research aimed at developing a government-perspective health investment model to estimate the fiscal impact of immunizing males and females with the quadrivalent HPV vaccine in Germany. METHODS: Methodologies from general accountancy, human capital and health economics were combined to estimate the fiscal benefits of HPV immunization. Cohort models were developed simulating the medical costs and average lifetime fiscal transfers between the government and cohorts of 13-year-old immunized and non-immunized individuals. To estimate tax revenue attributed to immunization-related changes in morbidity and mortality, direct and indirect tax rates were linked to differences in age- and gender-specific earnings. RESULTS: The lifetime discounted tax gross for the immunized male and female cohorts (n=400,000 each) were €208.7 billion and €130.4 billion, respectively. Over the lifetime of the female and male birth-cohorts, it was estimated that immunization with the quadrivalent HPV vaccine would result in the prevention of 986 female and 296 male HPV-related deaths. Compared to the non-immunized cohorts of 13-year old males and females, the immunized cohorts resulted in higher total net discounted tax by €106.1 million and higher total gross discounted tax by €80.4 million. CONCLUSIONS: The combined vaccination of males and females in Germany results in positive lifetime net and gross discounted tax revenues, generating tax revenue attributed to immunization of males and females with the quadrivalent HPV vaccine is likely to have positive effects on public finances and economic growth over subsequent generations.

PIN128 DYNAMIC NETWORK MODEL OF CLOSTRODIUM DIFFICILE INFECTION TO EVALUATE TREATMENT INTERVENTIONS AND COSTS
Zouhal H1, Brewer CG, Deutsch A2
1Zouhal Consulting Inc., Westmount, QC, Canada; 2Unit of PharmacoEpidemiology & PharmacoEconomics, Groningen, The Netherlands
OBJECTIVES: To date, efforts to model Clostridium difficile infection (CDI) have been limited. Most models do not address the contribution of asymptomatic carriers as sources of new infections and are restricted to hospital acquired CDI. We aim to develop a simulation model to systematically examine the dynamic relationship between three major subpopulations of CDI transmission: hospitals, communities, and long-term facilities, to evaluate treatment effectiveness and costs. METHODS: We conducted a systematic investigation to determine the key epidemiological factors influencing CDI transmission according to the three major subpopulations: hospitals, communities, and long-term care facilities. We have developed a stochastic agent-tracking meta-population network model of CDI transmission, and identified parameters that would capture transmission from symptomatic and asymptomatic carriers to unaffected individuals among the subpopulations. RESULTS: We identified key factors including: exposure, colonized, diseased, deceased, clinically resolved colonized, relapse of CDI, and cleared. Key parameters include; health outcomes of target populations, transmission factors, diagnostic characteristics, cost effectiveness of immunization strategies, susceptibility, vaccine effectiveness, and vaccination costs. Initial treatments of CDI do not induce a lasting response in 15–25% of patients. The estimated effectiveness of antibiotic therapy for a first recurrence is 60% and declining with multiple recurrent infections. Major predictors of outcomes include age, duration of initial hospitalizations. Recurrences of CDI were associated with major increases in hospital LOS and costs. CONCLUSIONS: Our dynamic network model of CDI transmission will improve the capacity to project and to quantify the impact of a CDI outbreak in terms of clinical burden and costs.