

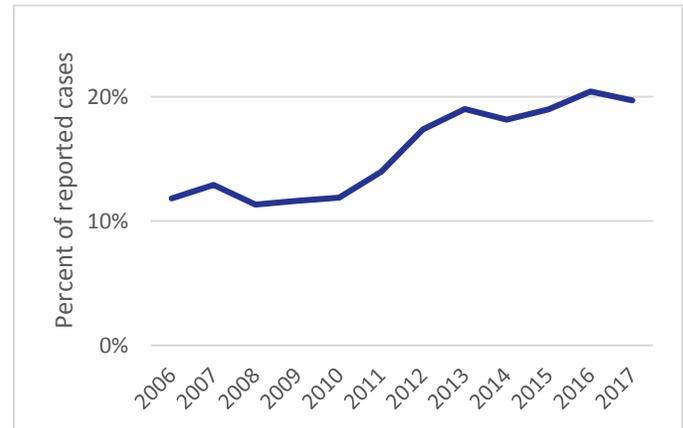
## Special Populations and Risk Factors

### Persons 30 years of age and younger

Recent increases in reports of acute hepatitis C among persons 30 years old and younger in central Appalachia have drawn attention to hepatitis C in young individuals, particularly those who are white, inject drugs, and reside in non-urban communities. Virginia was one of four states highlighted in a 2015 CDC report that illustrated the emerging triad of opioid abuse, IDU, and hepatitis C infection among persons aged 30 years or younger (Zibbell, 2015).

The number of acute and chronic hepatitis C cases that are newly reported in persons 30 years old and younger in Virginia increased by 84% from 2013 to 2017. During the same time period, the number of cases in persons older than 30 years of age increased by 76%. As seen in Figure 3.1, the percent of the total number of acute and chronic hepatitis C cases occurring in individuals 30 years of age and younger remained relatively stable until 2010. From 2011 to 2017, an increasing trend is observable. The increasing number of reported cases in this age group highlights the need for development and implementation of tailored health services.

**Figure 3.1. Percent of reported hepatitis C occurring in individuals 30 years of age and younger, 2006 – 2017 (VEDSS).**



The incidence rate in 2017 of acute HCV in Virginians 30 years of age and younger (0.28 per 100,000) is greater than the national goal (0.25 per 100,000) (CDC, 2017). Given that IDU is the primary risk factor for HCV infection in the United States, integrated health services are needed to provide substance abuse treatment, hepatitis C treatment, and prevention services to stop transmission (Zibbell, 2015). This population is also at risk for infection with other blood-borne pathogens, such as HIV and HBV. Co-infections of HIV and HCV are described in a separate section of this profile.

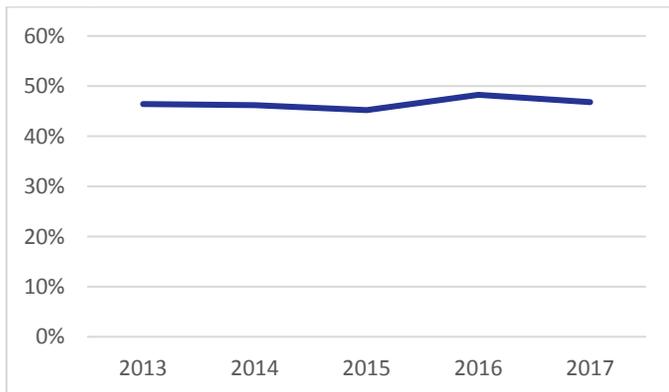
### Women of childbearing age

Due to the increase of young people infected with HCV, women of childbearing age (15 to 44 years old) comprise a vulnerable population due to the risk of vertical transmission to infants. The percent of reported hepatitis C diagnosed among women of childbearing age increased from 19.2% in 2013 to 19.7% in 2017 (Fig. 3.2). Reporting states have indicated an increased prevalence of HCV infection present in mothers at time of delivery from 1.8 to 3.4 per 1,000 live births between 2009 and 2014 (Patrick, 2017). CDC states that the transmission

risk of HCV from mother-to-child is approximately 4%-7% per pregnancy. The risk nearly doubles if the mother has high HCV viral loads or is coinfecting with HIV. There is no current recommendation to prevent transmission in place (CDC, 2018; Koneru, 2016).

Counties in the Appalachian region of eastern Tennessee neighboring the Virginia border are reporting HCV infection present in women at time of delivery rates of 25.1 – 78.4 per 1,000 live births (Patrick, 2017). As risk for mother-to-child transmission of HCV increases with increasing rates of HCV among women of childbearing age, CDC suggests HCV testing for expectant mothers that have HCV risk factors and recommends testing for children  $\geq 18$  months born to HCV-infected mothers (CDC, 2018; Koneru, 2016).

**Figure 3.2. Percent of all female reported hepatitis C occurring in women of childbearing age, 2013-2017 (VEDSS)**



### Baby Boomers

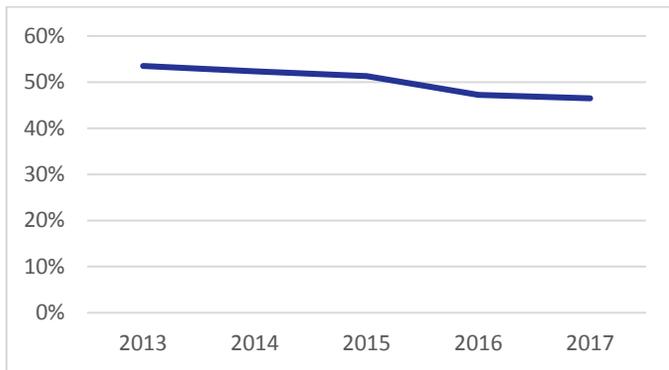
Another group known to be disproportionately affected by hepatitis C is the “baby boomer” birth cohort, defined as individuals born from 1945-1965. In a 2012 report, CDC estimated that baby boomers account for approximately 75% of all HCV-infected individuals nationwide (Smith, 2012). Today, HCV transmission through medical

procedures is uncommon due to advancements in sterilizing techniques and donor blood testing for pathogens; however, baby boomers may have been exposed to HCV in the ‘60s, 70s and 80s when HCV transmission was highest and before these practices were widespread (CDC, 2016). Given the high prevalence of HCV among baby boomers, the CDC and the US Preventive Services Task Force recommend that all persons in this birth cohort receive a one-time HCV test (Smith, 2012; USPSTF, 2013).

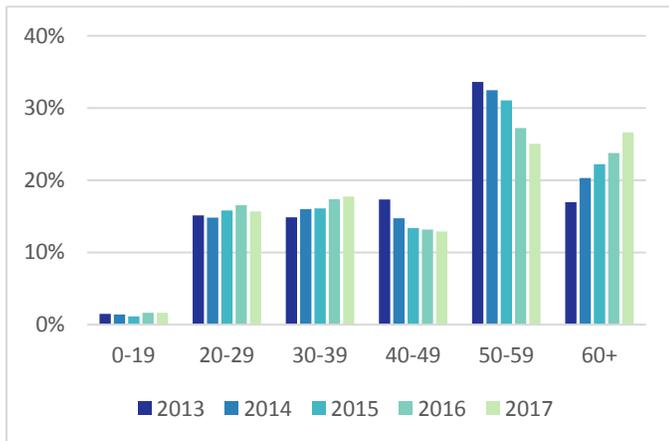
Baby boomers infected several decades ago are now reaching the stage at which chronic sequelae of HCV infection are most prevalent. Approximately 75-85% of persons infected with HCV develop chronic infection that can manifest as liver cirrhosis or hepatocellular cancer long after the infection occurred (CDC, 2017). The emphasis on testing and treating baby boomers is, in part, to promote clinical interventions before the occurrence of late stages of disease, which are difficult and costly to treat and decrease life expectancy. Linking infected baby boomers to care is increasingly important now that effective and well-tolerated curative treatments for hepatitis C are available.

In Virginia, surveillance data reveal that the percentage of newly reported HCV infections occurring among baby boomers has been decreasing in recent years (Figure 3.3). Reports of hepatitis C in persons aged 40-59 years are decreasing, while reports of hepatitis C in persons 60+ years are increasing; this reflects the aging baby boomer population (Fig. 3.3 and 3.4). Despite the decrease in percentage of total hepatitis C cases occurring in the baby boomer population, they still account for nearly 50% of all cases.

**Figure 3.3. Percent of reported hepatitis C occurring in individuals born from 1945 – 1965, 2013 – 2017 (VEDSS).**



**Figure 3.4. Percent of reported hepatitis C by age in years at diagnosis, 2013-2017 (VEDSS).**



<http://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/hepatitis-c-screening>

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