```r
  } else if (age_group == "Youth") {
    return("12-17")
  } else if (age_group == "Adult") {
    return(sample(c("18-24", "25-34", "35-44", "45-54", "65+"), 1))
  } else {
    return("Unknown")
  }
}

# Apply the function to generate age_cohort
age_cohort <- sapply(age_group, generate_age_cohort)

# Generate random values for COUNT column with 20% probability of value > 300
count <- ifelse(runif(num_rows) < 0.2, sample(301:2500, sum(runif(num_rows) < 0.2), replac

# Create the data frame
simulated_data <- data.frame(
  REPORT_YEAR = report_year,
  SUBTYPE = subtype,
  SEX = sex,
  AGE_GROUP = age_group,
  AGE_COHORT = age_cohort,
  COUNT_ = count
)

# Save the simulated data to a CSV file
output_path <- "Output/Data/simulated_data.csv"
write.csv(simulated_data, file = output_path, row.names = FALSE)

# Display the first few rows of the simulated dataset
head(simulated_data)
```

This code will save the simulated data to a CSV file located at "Output/Data/simulated_data.csv".