

# Importance of Performance testing for Annual Enrollment Periods (AEP)

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## **Introduction:**

**Individual Health is an important aspect for everyone's day to day life. Good Health is physical well being, mental well being and social well being. Physical health allows you to perform daily activities effectively as well as mental well being is crucial on how we think, feel and act. Maintaining a good health can lead to a longer and quality life. As Health is being important for an individual Health Insurance is also playing a vital role. The number of people with health insurance has increased significantly in recent years, with nearly 20 million individuals newly insured. Most of the individuals were able to enroll in coverage offered through the Medicaid program, their employer, or the individual market meaningful health care coverage is critical to living a productive, secure and healthy life. U.S. residents obtain health coverage from a variety of private and public sources, such as through their employers or direct purchase on the individual market (private sources), as well as through the Medicare, Medicaid, or Veterans Affairs programs (public sources), Federal Employee Program (FEP).**

**Keywords: Health Insurance, Annual Enrollment Period, AEP, Performance Testing for AEP**

## **Healthcare:**

One of the largest industries in the world, and it has a direct impact on the quality of life of people. It is the improvement of health via the prevention, diagnosis, treatment, improvement or cure of disease, illness, injury, and other physical and mental impairments in people. Health Care Provider, Health insurance provider and the member (common people) who utilize the health care are the 3 major key participants in the Health Care.

Health Insurance plays a crucial role by providing affordable health care by protecting us from financial risks. Healthy people may think they don't need an health insurance but unfortunate illness and accidents can happen to any one at any time. As this generation is fonder of junk food and addicted to gadgets the physical activity is getting reduced resulting in unhealthy life style. As the Covid19 pandemic hits the world, the quality and the resistance of the health has declined. Health Insurance is a must for every human being in the world as we can do better only with good health.

## **Importance of Health Insurance:**

**Life saving Protection:** Health insurance helps cover the cost of medical expenses, during unexpected illness or accidents happen.

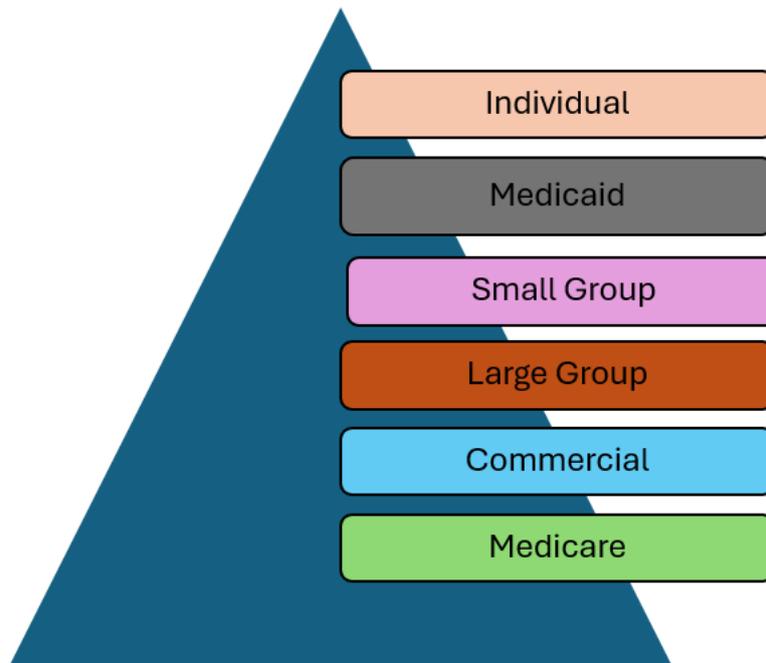
**Access to Care:** Having health insurance ensures that you have access to necessary medical services, including preventive care, which can help detect and treat health issues early

**Peace of Mind:** health insurance can provide peace of mind, reducing stress and anxiety about potential medical costs and ensuring that you can get the care you need when you need it. People with health insurance are more likely to receive timely and appropriate care, leading to better overall health outcomes. This includes regular check-ups, screenings, and treatments

**Preventive Services:** Health insurance often covers preventive services at no additional cost, such as vaccinations, screenings, and wellness visits, which can help maintain good health and prevent serious illnesses

### Annual Enrollment Period in Health Insurance:

Open Enrollment Period is a time period where an individual can enroll for health insurance to avail medical benefits. Missing AEP and not having creditable coverage can result in late enrollment penalties. If an individual misses the enrollment period there will be challenges to avail medical services in a jeopardy situation. Below the different groups of people will be enrolling during the Open Enrollment Period.



### Performance Testing Strategy for Annual Enrollment Period:

Performance Test Strategy outlines the high level plans of what and how we are going to achieve the testing for the Annual Enrollment Period. It serves as a roadmap for the organization to ensure all the features including Member enrollment, Agent enrollment Portals, Customer Service Representative Portals, Billing and Payment scenarios, Batch job, database stability are evaluated for performance. It provides a clear framework for the testing team on the process to follow and reduce the risk of missing any critical performance issues during the Load.

- Scope Definition for AEP
- Test Execution Schedule
- Test Scenario Execution
- Monitoring and Analysis
- Sharing the results to stake holders

### Scope Definition for AEP:

As the Annual Enrollment Periods involves enrollments from different Line of Business and many downstream system, we must understand the overall scope with the projected growth of the Business volume for Annual Enrollment Period. Include the portals, databases, batch , Billing and Payments that involves in the AEP. Enrollment will be effective when the member completes the registration through online with premium payment. All the batch jobs , downstream services and databases needs to get involved in the scope for the AEP performance testing.

### Test Execution Schedule:

We have plan the performance testing for AEP system well ahead before the enrollment periods starts , so that we can have enough time to performance tuning or upgrading the environment to persuade the user growth expects for the AEP.

### Test Scenario Execution:

The test scenario should be created in such a way it should be satisfying all the Systems like member portal, Agent portal, Insurance portal, Billing and Payment Portal, Batch jobs, Databse etc.. we have to test the

applications with anticipated volume for the AEP .Different types of performance testing needs to conducted like load, volume, scalability, endurance and stress testing to identify the performance bottlenecks.

**Monitoring and Analysis:**

Monitor the performance of the application for their response time, throughput, scalability, resources utilization, Database query performance and if any issues are observed identify the root cause and prepare the detailed test report.

**Share the results to Stakeholders:**

Based on the analysis and the report provide walkthrough to the stake holders and come up with the mitigation plan for the issues /bottlenecks identified. Propose a mitigation plan to fix the identified bottlenecks to overcome the issues during the Annual Enrollment Period

**Importance of Performance Testing for AEP:**

As Health Insurance is inevitable in every individual life, Performance testing for the Annual enrollment Period is most important so that we can identify the performance bottlenecks. The enrollment will be happening from different groups small group, large group, Commercial, Medicare, Agents, Medicaid. Considering all these factors we have define the frame work for performance testing. Here are some key reasons why it's important:

**Handling Huge User Load during AEP:** During the annual enrollment period, large number of users will access the system simultaneously. Performance testing ensures that the system can handle peak loads without crashing or slow response time. If the user experiences slow response will end up in the frustration of the user and move to other competitors.

**System Consistency and Scalability:** Performance testing for AEP helps to identify and fix potential bottlenecks and issues due to unexpected user load before they impact customers. The system should performance tested for the consistency and scalability by performing volume, stress and endurance testing apart from the Load test. The increase in the user load will impact the downstream systems too so performance testing specific to AEP is a must to ensures that the system remains reliable and stable throughout the enrollment period

**End to End Performance:**

Performance testing for AEP will helps to evaluate the End to End performance of the enrollment, with out having a proper strategy and plan for Performance testing of AEP will lead to break down in the downstream systems. This will lead to chaos from users as it involves payment process to complete the enrollment process.

**User Experience during AEP:** A slow or unresponsive system can frustrate users and lead to a poor enrollment experience. Performance testing helps optimize system performance, providing a smooth and efficient user experience. The customer dissatisfaction will affect the reputation and the lead the customers to move to competitors.

**Cost Efficiency:** Performance issues identified during enrollment will lead to business loss, shortage of manpower to address the issue. Identifying and addressing performance issues early can prevent downtime and reduce the need for emergency fixes during the enrollment period. Performance issues identified during enrollment will lead to business loss, shortage of manpower to address the issue.

**Conclusion:**

Health Care being destined in everyone life and the importance of Health insurance becoming an integral part. Annual Enrollment Period is a crucial period for the members to pursue a new insurance or changing to a new plan. Conducting performance testing with proper testing frameworks can help the health insurance providers to ensure a seamless and efficient enrollment process, leading to higher customer satisfaction and better overall outcome. As the Health Care Industry data are sensitive needs to adhere to the HIPAA policies and procedures. Performance Testing for these Annual Enrollment Period will enhance the application performance and optimization on the utilization helps the enterprise performs better

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