Plan, Do, Check, Act: The Deming Cycle for Continuous Improvement

**Dr. W. Edwards Deming – created this “Deming” cycle in 1950** proposed that business processes should be analyzed and measured to identify sources of variations that cause products to deviate from customer requirements. This can be used to ensure that root causes are the most effective solutions.

* **PLAN**: During the plan phase conduct a Root Cause Analysis (for example 5 Whys or Loss Causation) to identify the issue and create a plan to address it. Brainstorm potential solutions to correct the root cause. Select the most appropriate corrective action and anticipate the potential impact and collect baseline data.
* **DO**: Implement the corrective action plan and measure its performance.
* **CHECK**: Review the results to determine if the issue has been resolved. Speak to those involved for feedback. Compare any data to the baseline to measure the impact.
* **ACT**: Decide on changes. If the issue has been resolved incorporate changes into standard operating procedures and if additional changes are needed repeat the cycle until the issue is corrected and a new normal has been created.

*Example of Deming Cycle used with an Incident Investigation Finding*

**Plan**: HCA is hit by a resident; the root cause analysis identifies an issue with the hazard assessment when providing care in the memory care unit. The investigation team recommend reviewing the hazard assessment for the HCAs to account for responsive behaviours by using an administrative control of a Site-Specific Hazard Assessment. The potential impact is to reduce incidents and near misses from violent behaviour by having HCAs complete SSHA before giving care by reviewing the care plan and assessing for potential changes in behaviour that might lead to responsive behaviours. Before the incident there was 1 incident of violence and 10 near misses.

**Do**: For one-month SSHA’s are completed prior to care.

**Check**: After a month there has been no incidents of violence but 20 near misses reported.

**Act:** The investigation team are alarmed by the potential increase in near misses and repeat the cycle.

During brainstorming they decide to survey the HCAs to find out why. The results show that near miss reporting has increased due to awareness and under reporting in the past. Qualitative feedback from the staff say that they feel as they get used to the new step, they are able to get extra resources if needed and they feel safer. After an extended period, there are still no incidents and they decided to make SSHA’s a standard procedure.