

## Palau Biomedical Support contributes to Financial Savings for the Ministry of Health

The Palau Biomedical Services Department recently contributed towards financial savings for the Ministry of Health through maintenance. The Belau Hospital's only large autoclave in the CSSD area had failed and flooded the area. The hospital was in the process of purchasing a new autoclave but the biomedical department convinced them not to buy one until this one is fixed, saving the Ministry of Health from spending US\$ 35,000 for a new autoclave with similar specifications.

*Photo 1 – Dirty scaled rods*



The biomedical technicians, Mr Eric Rechucher and Mr Alben Adelbai found the heating elements and chamber covered with scales, worn out check valves and steam traps, which had increased the time for the autoclave to reach its operating temperature, prevented the load from drying up at the end of the cycle, and eventually failing and flooding the CSSD area.

The technicians soaked the heating elements in concentrated citric acid for several days, cleaned the chamber and replaced necessary worn out parts. The autoclave was repaired just in time for Palau to host a number of visiting specialist teams. The repaired autoclave, as they say, "is now as good as new". In comparison to a US\$ 35,000 new autoclave, the Ministry of Health spent only US\$ 2,500 for parts and avoided the long wait of receiving a new autoclave.

Both Eric and Alben are trained in maintaining autoclave/sterilizing units and with their knowledge and experiences were able to repair the only large autoclave the hospital had. Through this experience, the biomedical technicians have decided to perform quarterly maintenance to avoid this problem in the future.

*Photo 2 – Clean shiny rods*



Apart from irregular maintenance, one of the major factors that had contributed towards the scaling of the elements and chamber, and failure of the unit was use of chlorinated water i.e. water that was not deionized or softened. To resolve this issue, the biomedical technicians are working with superiors to either have functional water treatment system for the entire facility or provide necessary medium for the autoclave water line.

This incident highlights the importance of regular maintenance of equipment and provision of required supporting structures to reduce complete failure of equipment which may lead to increase in health expenditure. It also highlights the benefit of having in-house biomedical support services with trained biomedical technicians to assist Ministries of Health with managing their equipment.