

Figure 13
Injection Systems and Injection Systems Packaging



Source: Allied Development Corp.

Disposable syringes are generally packaged individually, due to the necessity for each syringe to remain sterile. The packaging for this type of syringe is typically a flexible tray constructed from a top web of 60g/m² of heat-seal coated paper and a transparent flexible bottom forming web, typically constructed of a coextrusion that includes nylon or ionomer to toughen the package and to enhance thermoformability.

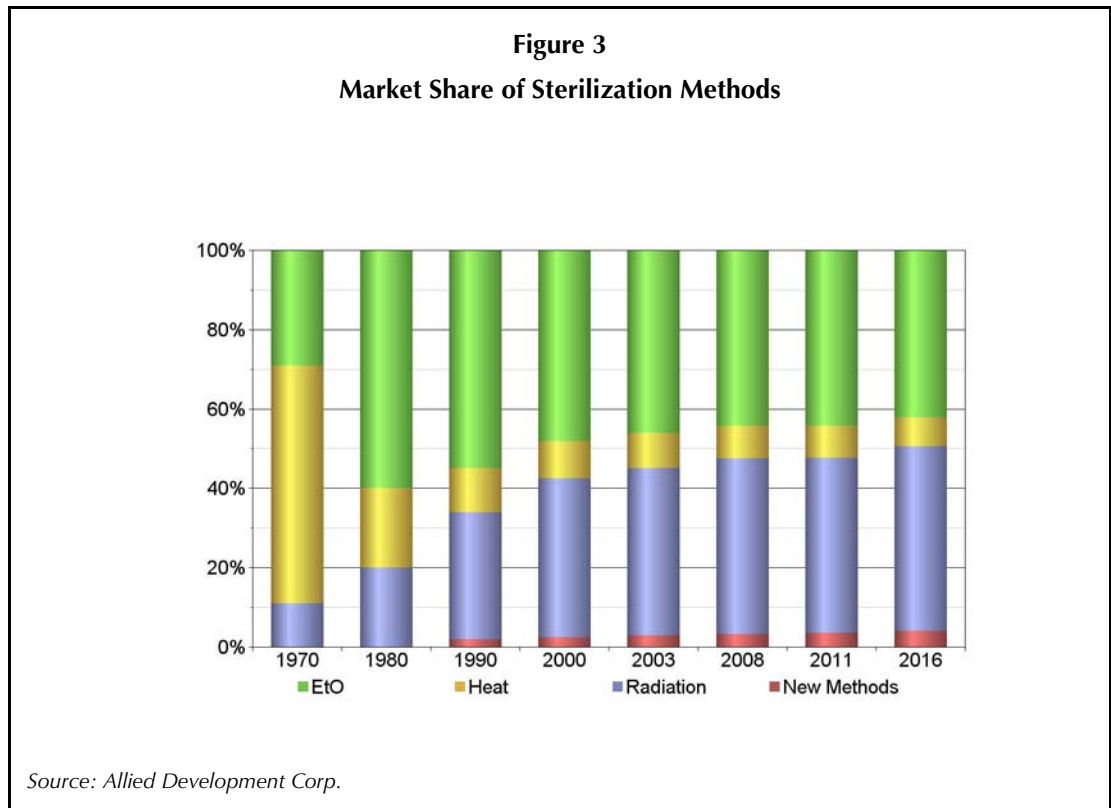
This device category is a commodity category and is one of the few medical device segments that is dominated by automated packaging. Production volumes are high and the permutations of syringe types are small enough to facilitate longer production runs and less change over of the packaging equipment. While complete automation has not yet been achieved

C. Sterilization technology

The importance of sterilization technology to the medical device market cannot be over emphasized. The use of in-package terminal sterilization is the most important differentiator of the medical device packaging market.

Today, radiation and ethylene oxide gas (EtO) sterilization dominate the market. Decades ago, they took over from heat sterilization, which was dominant in the 1970s.

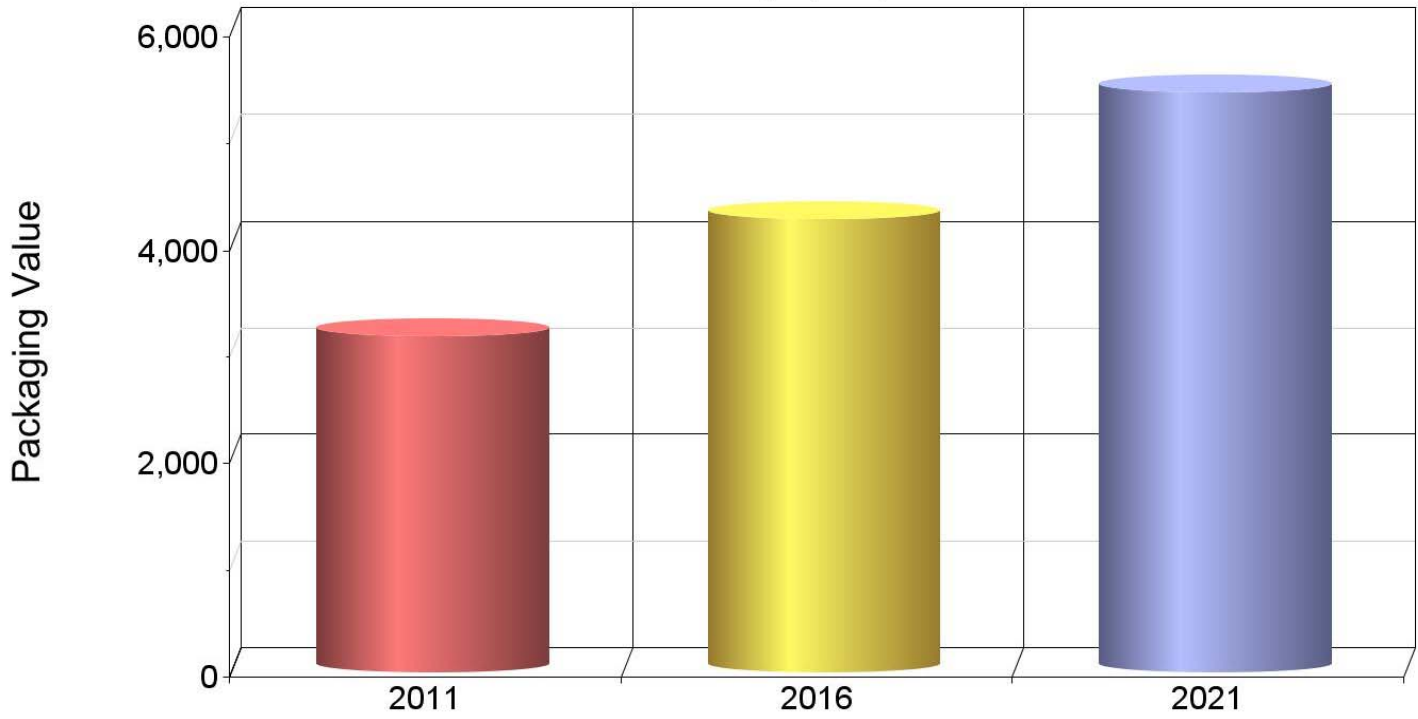
Figure 3 provides market share for each sterilization method during the period from 1970 to 2016.



The data used in Figure 3 is based primarily on the sterilization of medical devices in sealed primary packages. It also includes the re-sterilization of certain devices, which is done primarily in hospitals and clinics. All of the

Packaging Value - All Categories of Packaging

(US\$million)



Source: Allied Development Corp.