

# Public Health Laboratory Equipment

## 2016 CAPITAL INVESTMENT PROPOSAL

### Request

The Minnesota Department of Health (MDH) requests \$2.335 million from the general fund to replace its aging lab instruments and purchase new technologies necessary to protect the health and well-being of all Minnesotans, from newborns to seniors.

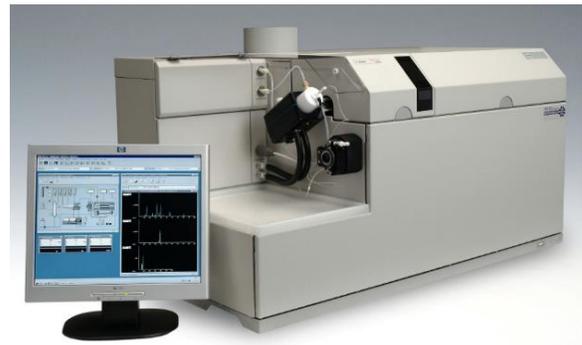
### Rationale

Even as demands for testing by the MDH Public Health Laboratory have become more frequent and complex, key laboratory equipment has passed the end of its useful service life. There is no dedicated funding mechanism to purchase capital equipment for the laboratory.

This investment will:

- **Enable faster, more accurate detection of health threats** such as Ebola, Zika virus, and bioterrorism so that MDH and partners in other state agencies have the best scientific data and methods available to protect the health of Minnesotans.
- **Replace aging equipment** that is no longer supported by vendors, cannot be repaired if it fails, and creates challenges for operating laboratory information technology systems.
- **Meet increased demand for specialized laboratory testing** from MDH programs, such as Drinking Water Protection and Biomonitoring, and partners such as the

Minnesota Pollution Control Agency. Environmental testing increased 40 percent between FY 2012 and FY 2014 and infectious disease testing increased by almost 200 percent during that same time period.



*Mass spectrometers like this one can cost \$250,000 to \$450,000. There is no dedicated funding source to replace capital equipment at MDH's Public Health Laboratory*

### Background

MDH's Public Health Laboratory performs critical laboratory testing to detect public health threats. Much of this testing is not available in other laboratories and requires the use of sophisticated facilities and instrumentation.

Rapid detection and identification of public health threats enables MDH and its partners to develop and implement interventions to protect the health of the public. MDH must continuously update lab equipment to maintain our ability to do this work well.

The laboratory facility shared by the departments of Health and Agriculture was completed in 2005. Equipment purchased at the time of construction or brought from the previous location is at or near the end of its projected service life.



*MDH scientists require sophisticated lab equipment to perform rapid detection and identification of public health threats that protect the health of the public.*

## Proposal

Funding would purchase approximately 15 instruments, ranging in cost from \$40,000 to over \$400,000. Investment in newer, more sensitive and reliable technologies is needed to maintain and build capacity for critical testing in the areas of:

- **Foodborne illness outbreaks.** Newer technology processes large numbers of samples quickly so that the source of an outbreak can be identified and contained before more people get sick.
- **Emerging infectious diseases.** New equipment is needed for Minnesota to remain a national leader in detecting and preventing the spread of emerging infectious diseases such as Ebola and Zika virus.

- **Rare but treatable disorders in newborns.** New analytical methods can reduce false negative and false positive test results, so that rare or hidden disorders in newborns can be identified and treated early -- preventing illness, physical disability, developmental delay, or even death.
- **Chemicals of emerging concern.** Newer instruments are needed to test water and soil for pharmaceutical compounds, hazardous chemicals, and radioactive substances in our environment to ensure interventions that protect the health of the public.

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