

Asia-Pacific Laboratory Proficiency Testing Program for Aquatic Animal Diseases



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1. Overview

- The Asia-Pacific Laboratory Proficiency Testing (APL-PT) Program for Aquatic Animal Diseases is a technical capacity-building initiative led by DAFF and CSIRO-ACDP to strengthen aquatic animal disease diagnostics in the Asia-Pacific region.
- APL-PT provides regular proficiency tests, training, and technical support to laboratories, enabling them to benchmark performance, improve accuracy, harmonise methods, and enhance disease detection, reporting, and biosecurity across the region.

2. Benefits

For Participating Laboratories and Countries

- Meets ISO accreditation requirements for laboratory quality assurance
- Offers a valuable training platform for staff on diagnostic standards, procedures, and QA practices
- Enhances national capacity to detect transboundary aquatic animal diseases
- Supports safe trade and strengthens industry sustainability and productivity

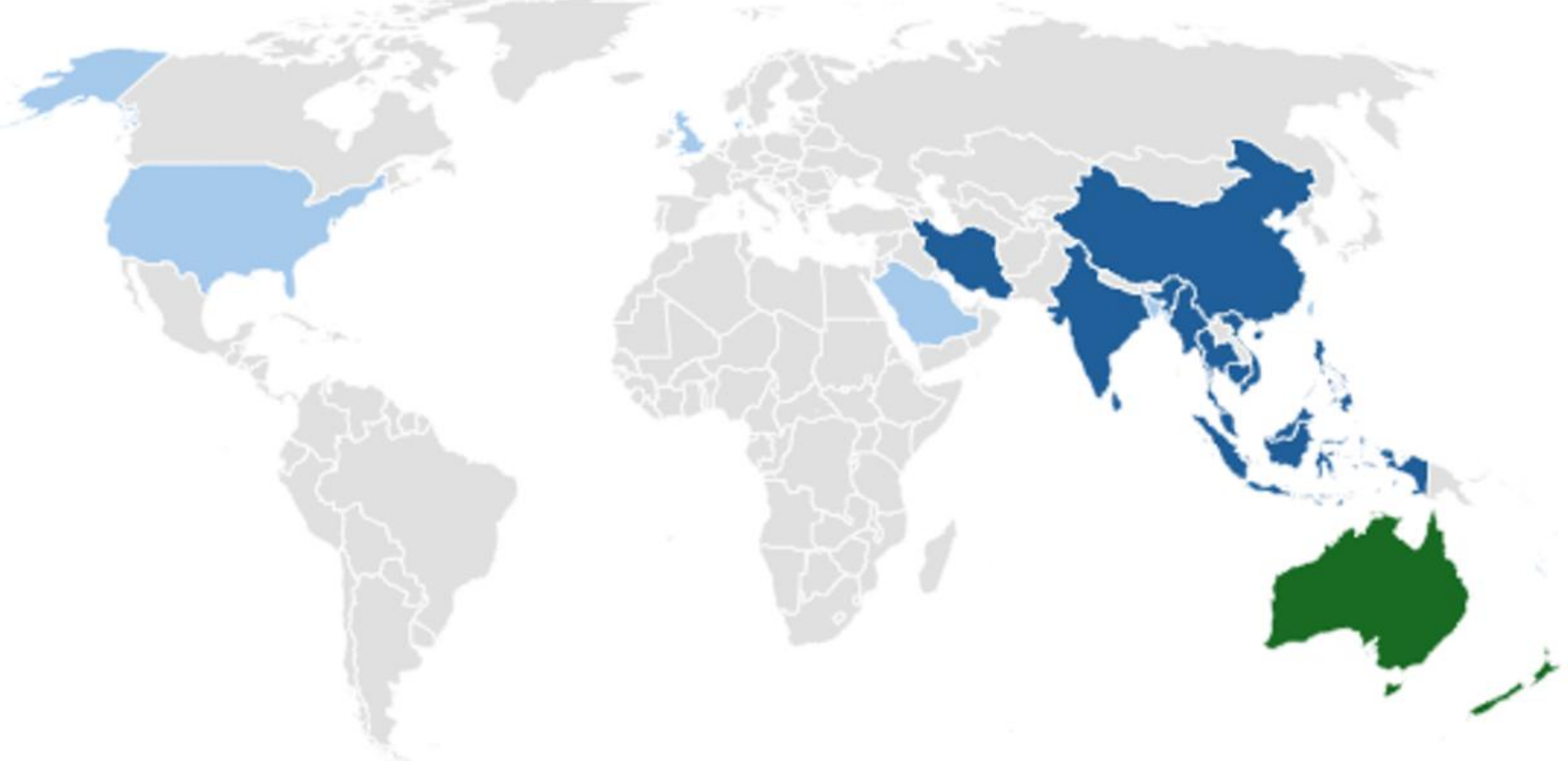
For Australia

- Builds a regional network of aquatic animal health diagnostic laboratories
 - Facilitates technical dialogue to enhance lab performance and consistency
 - Enhances emerging disease intelligence from the Asia-Pacific region
 - Strengthens partner countries' diagnostic capacity, improving pre-border risk management
- Helps address biosecurity threats at the source

3. APL-PT Program

3.1 Participant profile

2012–14 Regional PT program
2018–22 Asia-Pacific Laboratory PT program
2022–25 Asia-Pacific Laboratory PT program
2025–28 Asia-Pacific Laboratory PT program (New!)



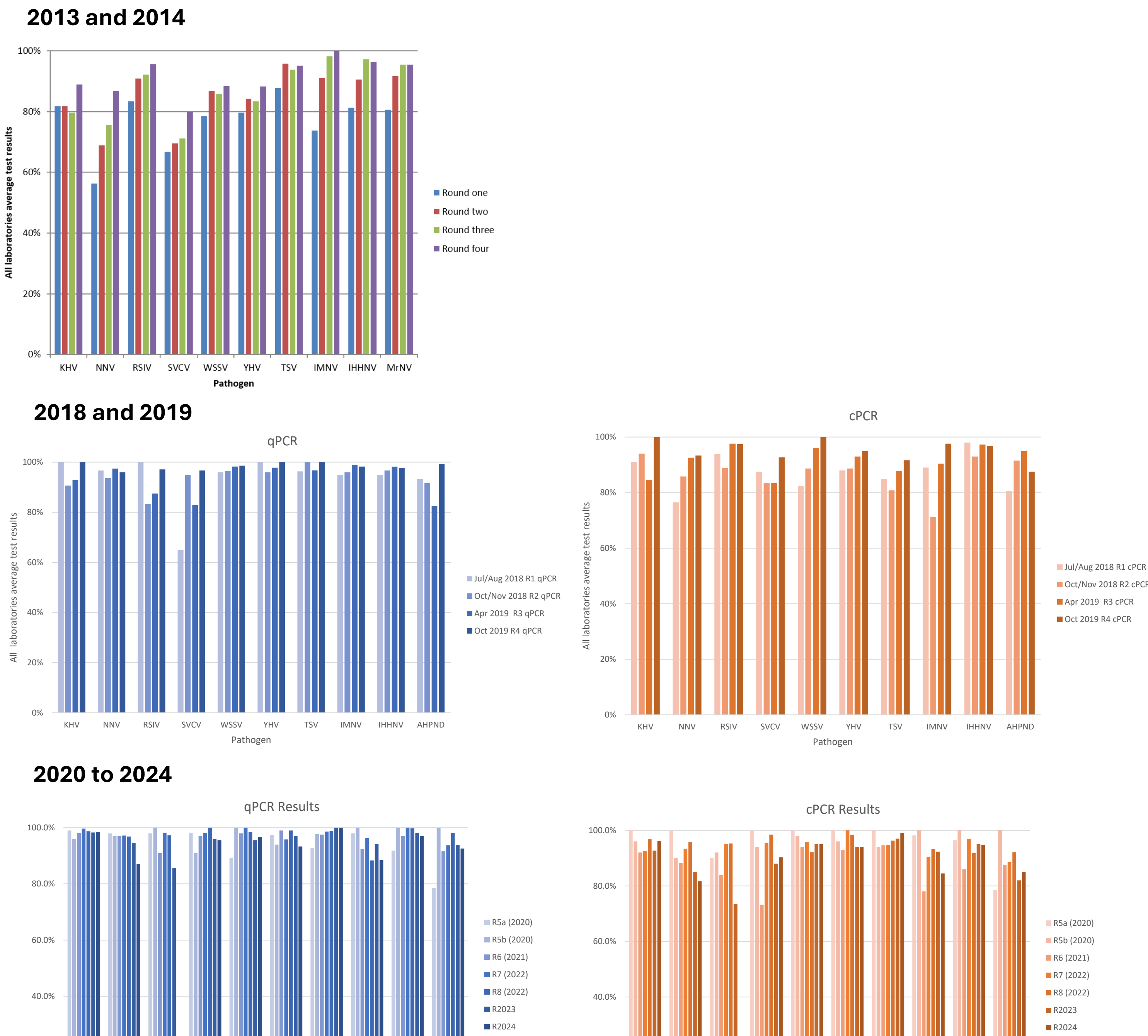
3.2 List of pathogens included in PT panels

Crustacean	Finfish
White spot syndrome virus (WSSV) Yellow head virus genotype 1 (YHV-1) Taura syndrome virus (TSV) Infectious myonecrosis virus (IMNV) Infectious hypodermal and haematopoietic necrosis virus (IHHNV) <i>Vibrio parahaemolyticus</i> (AHPND) Pir A/B toxin genes	<i>Megalocytivirus</i> Nervous necrosis virus (NNV) Koi herpesvirus (KHV) Spring viraemia of carp virus (SVCV)

3.4 Selected pathogen-specific performance (2020–2024)



3.3 Average test results for all laboratories (average % of correct results per pathogen)



3.5 Overall performance

- Average diagnostic accuracy across rounds: 94.4%
- qPCR (96.1%) consistently outperformed conventional PCR (92.8%)
- Most laboratories achieved >90% accuracy
- Participation: 58+ laboratories across 21 countries
- Progressive improvement was observed across successive testing rounds

4. Conclusions and Future Directions

- The APL-PT Program has significantly enhanced regional diagnostic quality and consistency
- Supports aquatic animal health, trade assurance, and disease prevention
- Provides a unique regional collaboration platform with no comparable program
- Continued investment is secured for 2025/26 to 2028/29
- A regional workshop was held in August 2025 to strengthen program design, collaboration, and skills development

5. Contact information

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6. APL-PT program and workshop reports can be accessed here:

