Alaska Area Specimen Bank
A Unique Tribal-Federal Partnership

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Alaska Indigenous Research Program

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What is a BIOREPOSITORY?

Secure Investment Bank

Archive, collection, library

Evidence for clinical and epidemiological investigations

Tool Kit for development of treatments and preventions
What does a BIOREPOSITORY do?

What does a BIOREPOSITORY look like?

AASB at CDC Arctic Investigations Program

<table>
<thead>
<tr>
<th>Specimen Types</th>
<th>Aliquots</th>
<th>Specimens</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>618,170</td>
<td>343,332</td>
<td>104,508</td>
</tr>
<tr>
<td>Specimen Types</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serum</td>
<td>508,977</td>
<td>277,789</td>
<td>84,404</td>
</tr>
<tr>
<td>Plasma</td>
<td>9,131</td>
<td>6,287</td>
<td>3,378</td>
</tr>
<tr>
<td>Urine</td>
<td>2,015</td>
<td>1,212</td>
<td>1,036</td>
</tr>
<tr>
<td>Cord blood</td>
<td>1,805</td>
<td>1,238</td>
<td>1,233</td>
</tr>
<tr>
<td>NP/OP swabs</td>
<td>26,184</td>
<td>26,010</td>
<td>10,725</td>
</tr>
<tr>
<td>DNA</td>
<td>11,653</td>
<td>10,714</td>
<td>6,985</td>
</tr>
<tr>
<td>Bacterial cultures</td>
<td>50,518</td>
<td>33,501</td>
<td>21,138</td>
</tr>
<tr>
<td>Other*</td>
<td>5,342</td>
<td>4,044</td>
<td>2,017</td>
</tr>
</tbody>
</table>

*Other includes: body fluids, tissues, white blood cells and whole blood

Ultralow Freezers -70°C / -94°F

Walk-in “Arctic Entry Way” -4°C / 25°F

Walk-in Freezer -30°C / -22°F
(-70°C) Types of Specimens
- Human genetic material
- Whole blood
- Tissues
- Bacterial cultures
- (Nose) Nasopharyngeal swabs
- (Throat) Oropharyngeal swabs

(-30°C) Types of Specimens
- Serum
- Plasma
- Urine
- Whole Blood
- Bacterial DNA

CRYOVIALS
BOX/RACK Organization
Labeling
How the AASB came to be

1958
Serum samples collected and kept by Arctic Research Center

1980-1990
Serum samples collected by State of Alaska/THO/CDC
For Hepatitis B Statewide Surveillance and Vaccine Cohorts
Stored and maintained by CDC AIP

1998
CDC AIP moves to Alaska Native Health Campus – transfers sample collections to the physical AASB established at AIP facility.
(AASB)
Original Reason for Collection

- 85% Alaska Native or American Indian
- The remaining 15% are Alaskan.
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1998-2006
Establish the Specimen Collections as a Biorepository, as a Resource.
Working Group is created to develop a policy for the AASB and for co-management.
How the AASB came to be

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Establish the Specimen Collections as a Biorepository, as a Resource.
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The Alaska Area Specimen Bank Policies and Procedures

Unique to Biobanking
Tribal-Federal partnership
Co-Management of the AASB

**October 2018 Modification to the AASB Policies & Procedures Document. Approved by 2018 AASB Oversight Committee, Alaska Area IRB, CDC IRB**
Alaska Area Specimen Bank (AASB)
Policy
The Foundation

AASB is considered a resource for improving the health and well-being of all Alaskans, but with special emphasis on Alaska Native and American Indian persons.

Individual specimens contained within the bank remain the property of the individuals who consented to have their specimens stored for future research use.

Maintained Individual Ownership
ALASKA AREA SPECIMEN BANK

Why store specimens?
Specimens in the bank can provide a way to learn about the health of Alaska Native people over time. What is learned could help improve lives.

Where did the specimens come from?
The specimens are from research studies, outbreaks and medical procedures. Most of the specimens are from Alaska Native people. The bank has been saving specimens since the 1960s. Most specimens were collected to learn about infectious diseases like hepatitis.

How are specimens stored?
Specimens are stored in small tubes and kept frozen. The tubes are labeled with a number linked to a person's name and birthdate. Specimens are stored safely in special freezers with limited access.

Who manages the Alaska Area Specimen Bank?
The AASB Oversight Committee manages the bank. This group is made up of representatives from Alaska Native Tribal Health Consortium (ANTHC), Centers for Disease Control and Prevention (CDC), and Alaska Native Tribal Health Organizations (THO).

How can a researcher or other individual get permission to use specimens?
Specimens contained within the bank are the property of the individuals who consented to have their specimens stored. Future tests on these specimens which use your name or other identifiers will not be done without consent.

Specimen: a sample of blood, tissue or body fluid from human beings which can be used for testing or research.

"The AASB is used to conduct research and remains a carefully managed resource to improve the health of the Alaska Native people... Over time, research, data ownership, informed consent, and individual specimen's ownership have been determined by the Alaska Native people. That is an example of how partnerships by the right mix of organizations, federal and tribal, produce an operational system that engages the Alaska Native community in the process of managing a specimen bank."

H. Sally Smith
Alaska Native Tribal Health Leader

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Adapting the AASB from Past to Present

2006

The Alaska Area Specimen Bank Policies and Procedures

- New developments in biorepository science and innovation
- Genetics Research
- Individualized Medicine
- Upgrades to biospecimen handling, automation and data security
- Evolving federal laws and regulations (i.e. OHRP/ Final Rule
- Tribal Sovereignty and growing capacity

2021

Revising the AASB Policy

Step 1
• Identify & Review Best Practices

Step 2
• Identify Key Elements

Step 3
• Evaluate Current AASB Policy with Key Elements

Step 4
• Incorporate New and Update Existing (Draft)

Step 5
• Review and Discuss with Tribal-Federal Partnership
  • Stakeholder Focus Groups, Open forums
  • THE AASB POLICY SUMMIT
Thank you
Biorepository Best Practices
Resources List

• *American Indian and Alaska Native Genetics Resource Guide: Tools for Tribal Leaders and Citizens*

• *International Society for Biological and Environmental Repositories—4th Edition (ISBER)*

• *National Cancer Institute (NCI) Best Practices for Biospecimen Resources*

• *U.S. Centers for Disease Control and Prevention (CDC) – Sample Management Policy*