

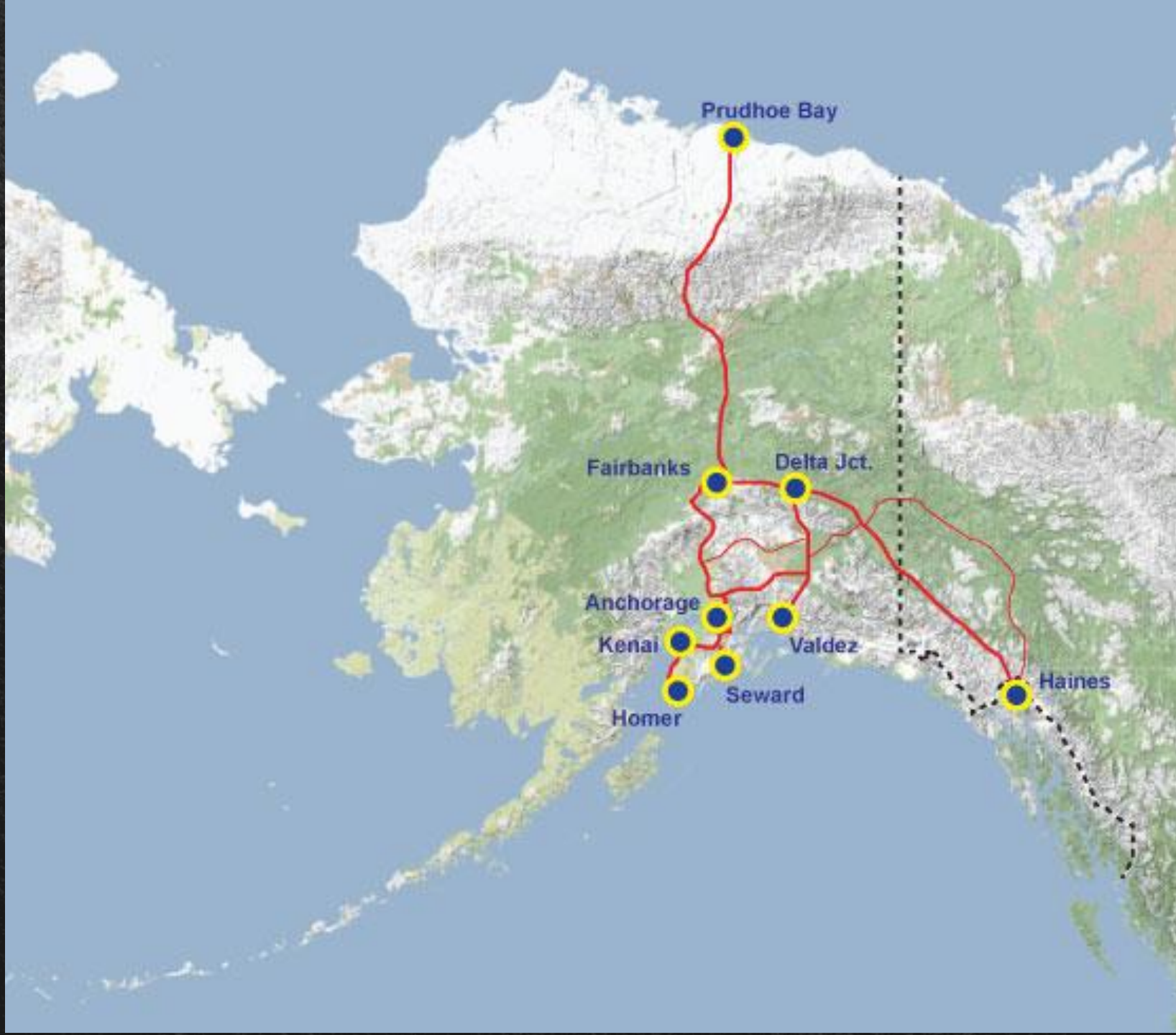
OVERVIEW OF THE ALASKA FLEX EMS SUSTAINABILITY PROJECT

TERRY KADEL, EMS OFFICER, RURAL AND COMMUNITY HEALTH SYSTEMS

ALASKA DEPARTMENT OF HEALTH & SOCIAL SERVICES

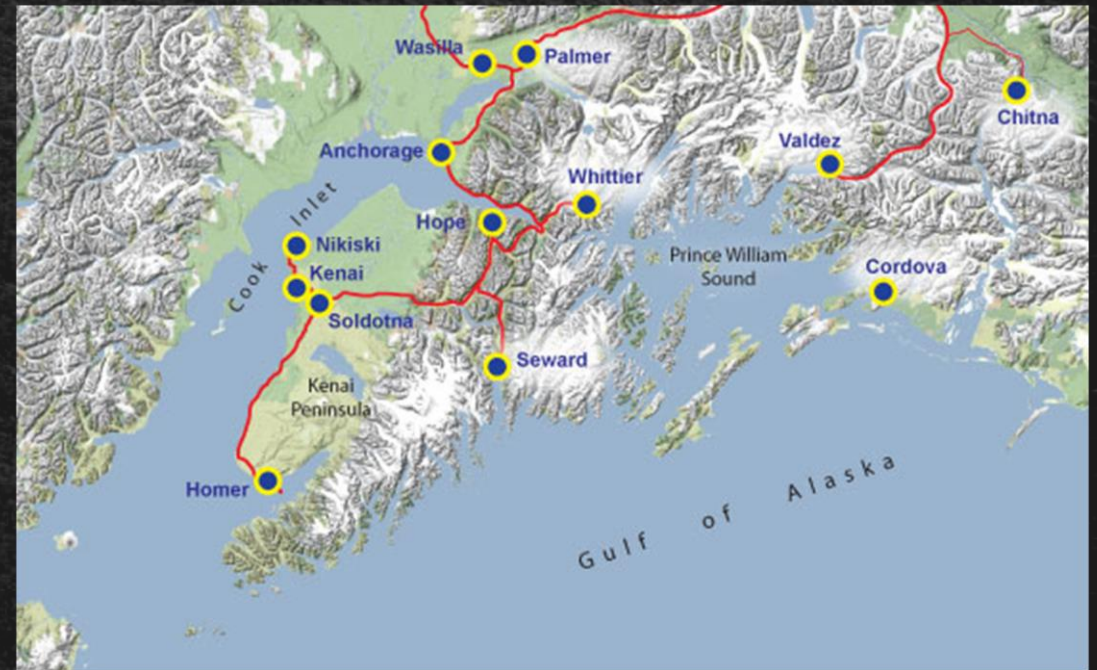


MAP OF ALASKA



ALASKA FLEX EMS SUSTAINABILITY PROJECT

- ESTABLISH A TELE-STROKE PROGRAM THAT **INTEGRATES** EMS WITH THE RECEIVING NEUROLOGIST TO REDUCE THE TIME BETWEEN IN FIELD ASSESSMENTS AND THE MOST BENEFICIAL TREATMENT WITHOUT ADDED DELAYS.
- THIS GOAL OF THIS PILOT PROJECT IS TO **REDUCE NEGATIVE OUTCOMES** CAUSED BY LARGE VESSEL OCCLUSION IN CEREBRAL VASCULAR INCIDENTS BY UTILIZING A COORDINATED SYSTEMS APPROACH.



STEPS TO IMPLEMENTATION

EMS MEDICAL DIRECTION/NEUROLOGY

1. DEVELOP FIELD AND IN-HOSPITAL PROTOCOLS
2. ON-CALL AVAILABILITY (NEUROLOGISTS)
3. SYSTEM TECHNOLOGY AVAILABILITY:
COMPLIANCE AND USABILITY WITH EMS AGENCIES



STEPS TO IMPLEMENTATION, ONCE MORE

EMS AGENCIES

1. ENROLLMENT: NIKISKI FIRE DEPARTMENT, CENTRAL EMERGENCY SERVICES, KENAI FIRE DEPARTMENT
 - a) MEDICAL DIRECTOR, TRAINING COORDINATOR AND FIRE CHIEF ALL AGREED TO PARTICIPATE
2. DEVELOP APPROPRIATE TELE-STROKE PROTOCOLS
3. SYSTEM TECHNOLOGY AVAILABILITY: COMPLIANCE AND USABILITY WITH HOSPITALS
4. TRAIN FIELD PROVIDERS
 - a) ROLL-OUT OF SPECIFIC TELE-STROKE PROTOCOLS
 - b) EQUIPMENT AND PROGRAM FAMILIARIZATION
 - c) IN FIELD ASSESSMENTS FOR LARGE VESSEL OCCLUSION: BEFAST
 - d) HIGH FIDELITY BASED SCENARIOS TO MEASURE SKILL PROFICIENCY (SKILL PROFICIENCY TESTING)
 - e) ASSESSMENT FOR MEASURING COGNITIVE RETENTION (WRITTEN EXAM)



BE FAST

B

E

F

A

S

T



BALANCE

LOSS OF BALANCE,
HEADACHE
OR DIZZINESS

EYES

BLURRED VISION

FACE

ONE SIDE OF THE
FACE IS DROOPING

ARMS

ARM OR LEG
WEAKNESS

SPEECH

SPEECH DIFFICULTY

TIME

TIME TO CALL
FOR AMBULANCE
IMMEDIATELY

VAN

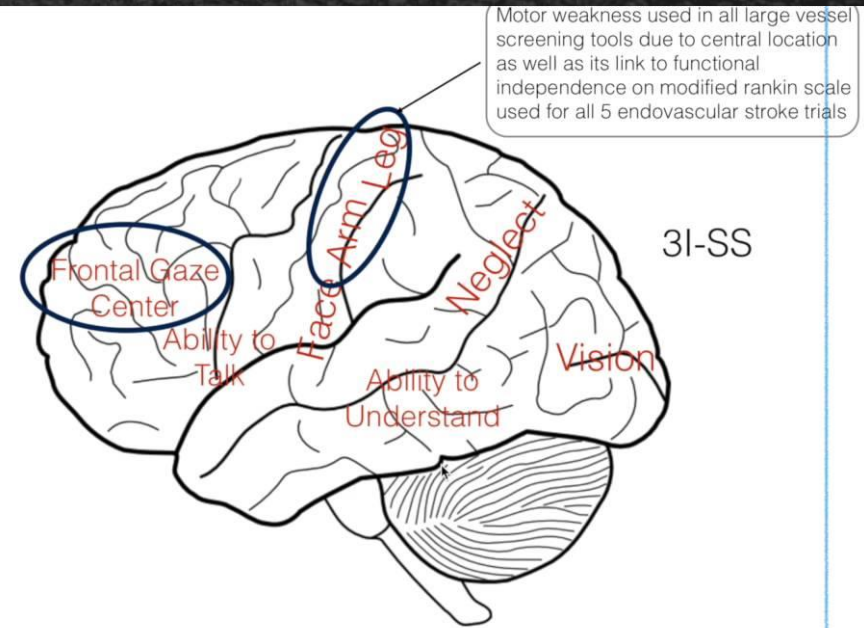
occlusion

	Large artery clot	No large artery clot	
VAN+	14	5	19 Total VAN+
VAN-	0	43	43 Total VAN-
	14 Large artery clot	48 No large artery clot	
	Large artery clot	No large artery clot	
NIHSS ≥ 6	14	10	24 Total
NIHSS < 6	0	38	38 Total
	14 Large artery clot	48 No large artery clot	

Positive predictive value of VAN=14/19=74%; sensitivity=14/14=100%.
 Positive predictive value of NIHSS=14/24=58%; sensitivity=14/14=100%.
 Negative predictive value of VAN=43/43=100%; specificity=43/48=90%.
 Negative predictive value of NIHSS=38/38=100%; specificity=38/48=79%.
 Accuracy VAN=57/62=92%.
 Accuracy NIHSS=52/62=84%.

In addition, the goal of the quality study was to access average door to needle times.
 Our average time before implementation of VAN was 2 h 40 min. The time was reduced to 1 h 25 min when the VAN protocol was employed.

NIHSS, National Institutes of Health Stroke Scale; VAN, vision, aphasia, and neglect.



STEPS TO IMPLEMENTATION, CONTINUED

COMMUNICATION & DATA

1. COMMUNICATE NEW TELE-STROKE PROTOCOLS: PUBLIC SAFETY DISPATCH CENTERS, EMS AGENCIES, AIR MEDEVAC COMPANIES, HOSPITALS, NEURO-TREATMENT PROVIDERS
2. MARKETING: ENSURE ALL STAKEHOLDERS ARE AWARE OF THIS PILOT PROJECT: PUBLIC, HOSPITALS, CLINICS, EMTs, FLIGHT CREWS, NEUROLOGY GROUPS AND RECEIVING FACILITIES
3. DATA COLLECTION AND TRACKING: DIAGNOSIS, MISDIAGNOSIS, MORBIDITY AND MORTALITY ETC.
 - a) COORDINATING PREHOSPITAL DATA AND STROKE REGISTRY



CURRENT BARRIERS TO OVERCOME

- COMPATIBLE EQUIPMENT BETWEEN THE NEUROLOGY PROVIDERS AND EMS
- COORDINATION BETWEEN PARTNERS — NO ISSUES YET BUT ANTICIPATE SOME AS WE IMPLEMENT THE TELE-STROKE PROGRAM (CULTURE CHANGE)

