

ALS Subcommittee

Medic One/EMS Levy Planning

Thursday, March 15, 2018

1:30 PM – 3:30 PM

2100 24th Avenue S, Community Room B
Seattle, WA 98144

Chair: Keith Scully, Councilmember, City of Shoreline

Agenda

- | | |
|---------------------------------------------------------------------|---------------------|
| ➤ Opening Remarks & Introductions | 1:30-1:40 (10 min.) |
| ➤ Report from Other Subcommittees | 1:40-1:50 (10 min.) |
| ➤ ALS Unit Allocation Model and Methodology Discussion | 1:50-2:30 (40 min.) |
| ➤ Efficiencies, Effectiveness, and Best Practices Discussion | 2:30-3:00 (30 min.) |
| ➤ Projected Demand Analysis Factors | 3:00-3:20 (20 min.) |
| ➤ Next Steps | 3:20-3:30 (10 min.) |
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Future Advanced Life Support (ALS) Subcommittee Meeting Schedule

Tuesdays, 1:00 p.m. – 3:00 p.m.

April 10, 2018	2100 24 th Ave. S (Community Room A) Seattle, WA 98144
May 8, 2018	2100 24 th Ave. S (Community Room A) Seattle, WA 98144
June 12, 2018	2100 24 th Ave. S (Community Room A) Seattle, WA 98144
July 10, 2018	2100 24 th Ave. S (Community Room A) Seattle, WA 98144*
August 14, 2018	2100 24 th Ave. S (Community Room A) Seattle, WA 98144*
September 11, 2018	2100 24 th Ave. S (Community Room A) Seattle, WA 98144*
October 9, 2018	2100 24 th Ave. S (Community Room A) Seattle, WA 98144*

*Meeting location – tentative

ALS Subcommittee Contact:
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(206) 263-8603 | Michele.Plorde@kingcounty.gov

EMS STAKEHOLDER PRINCIPLES

As regional EMS Stakeholders, we are committed to these fundamental principles:

1. REGIONAL SYSTEM

The Medic One/EMS system is based on partnerships that are built on regional, collaborative, cross-jurisdictional coordination. This seamless cohesion allows the system to excel in pre-hospital emergency care.

2. TIERED MEDICAL MODEL

The medical model, with its tiered system and intensive dispatch, EMT and paramedic training and protocols, has led to our success in providing high quality patient care throughout the region.

3. PROGRAMS & INNOVATIVE STRATEGIES

State of the art science-based strategies and programmatic leadership have allowed us to meet the needs and expectations of our residents and our system.

4. FOCUS ON COST EFFECTIVENESS AND EFFICIENCIES

The Medic One/EMS system has maintained financial viability and stability due to the region's focus on operational and financial efficiencies, effectiveness and cost savings.

5. MAINTAINING AN EMS LEVY AS FUNDING SOURCE

The EMS levy is a reliable and secure source of funding our world-renowned system.

ALS SUBCOMMITTEE GUIDING PRINCIPLES

As members of the ALS Subcommittee, we remain committed to these fundamental principles:

1. Maintain ALS as the funding priority.

ALS will remain the primary recipient of the Medic One/EMS Levy and the first commitment for funding within the Medic One/EMS system.

2. ALS' primary focus is patient-centric.

Decisions regarding ALS services will be with a view to patient outcomes.

3. Full unit funding will be made available.

Full reimbursement for all eligible ALS costs.

4. Resources will be used efficiently.

ALS will maintain high-quality services in our communities, be responsive to emergent needs and do so with reasonable costs evaluated through system-wide analysis.

5. Use data and sound practices in evaluating service needs.

Conduct analysis in alignment with sound practices.

MEDIC ONE/EMERGENCY MEDICAL SERVICES STRATEGIC PLAN & LEVY REAUTHORIZATION

Future Meetings

EMS Advisory Task Force:

Thursday, April 26, 2018	1 pm – 3 pm	Tukwila Community Center
Tuesday, July 31, 2018	1 pm – 3 pm	2100 Building Community Room B
Tuesday, October 16, 2018	1 pm – 3 pm	Tukwila Community Center

SUBCOMMITTEES:

Advanced Life Support (ALS) - Tuesdays from 1:00 – 3:00, South Seattle location

✓ February 15, 2018	Renton Fire Station 14
* March 15, 2018 (1:30 – 3:30)	2100 Building Community Room B
April 10, 2018	2100 Building, Community Room A
May 8, 2018	2100 Building, Community Room A
June 12, 2018	2100 Building, Community Room A
July 10, 2018	TENTATIVE - 2100 Building
August 14, 2018	TENTATIVE - 2100 Building
September 11, 2018	TENTATIVE - 2100 Building
October 9, 2018	TENTATIVE - 2100 Building

Basic Life Support (BLS) - Thursdays from 1:00 – 3:00, various Renton sites

✓ February 8, 2018	Renton Fire Station 14
✓ March 8, 2018	Renton Fire Station 14
April 5, 2018	Renton City Hall, Council Chambers, 7 th Floor
May 3, 2018	Renton City Hall, Council Chambers, 7 th Floor
June 7, 2018	Renton Fire Station 14
July 12, 2018	Renton City Hall, Council Chambers, 7 th Floor
August 9, 2018	Renton City Hall, Council Chambers, 7 th Floor
September 6, 2018	Renton City Hall, Council Chambers, 7 th Floor
October 4, 2018	TBD

Regional Services (RS) - Tuesdays from 1:00 – 3:00, Renton location

✓ February 20, 2018	City of Seattle Joint Training Facility
March 20, 2018	Renton Highlands Library conference room
April 17, 2018	Renton Highlands Library conference room
May 15, 2018	Renton Highlands Library conference room
June 19, 2018	TENTATIVE - Renton Highlands Library
July 17, 2018	TENTATIVE - Renton Highlands Library
August 21, 2018	TENTATIVE - Renton Highlands Library
September 18, 2018	TENTATIVE - Renton Highlands Library

Finance - Tuesdays or Thursdays 1:00 – 3:00, Kirkland location

✓ February 1, 2018 (Thursday)	Renton Fire Station 14 (1900 Lind Ave SW)
April 19, 2018 (Thursday)	Peter Kirk Room, Kirkland City Hall
July 24, 2018 (Tuesday)	Peter Kirk Room, Kirkland City Hall
September 25, 2018 (Tuesday)	Peter Kirk Room, Kirkland City Hall

LOCATIONS:

Renton Fire Station 14
1900 Lind Ave SW, Renton

Phone: (425) 430-7000

City of Seattle Joint Training Facility
9401 Myers Way South, Seattle

Phone: (206) 386-1600

The 2100 Building
2100 24th Ave S, Seattle

Phone: (206) 407-2100

Renton City Hall
1055 South Grady Way, Renton

Phone: (425) 430-6400

Kirkland City Hall
123 5th Ave, Kirkland, WA

Phone: (425) 587-3000

Renton Highland Library Conference Room
2801 NE 10th Street, Renton

Phone: (425) 277-1831

EMS Advisory Task Force Medic One/EMS Levy Reauthorization Calendar

2018

JANUARY

S	M	T	W	Th	F	S
	H1	2	3	4	5	6
7	8	9	0	11	12	13
14	H15	16	17	TF 18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	Th	F	S
				FIN 1	2	3
4	5	6	7	BLS 8	9	10
11	12	ALS 13	14	15	16	17
18	19	RS 20	21	22	23	24
25	26	27	28			

MARCH

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4	5	6	7	BLS 8	9	10
11	12	13	14	ALS 15	16	17
18	19	RS 20	21	22	23	24
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ALS - revised

APRIL

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29	30					

MAY

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27	H28	29	30	31		

JUNE

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JULY

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8	9	ALS 10	11	BLS 12	13	14
15	16	RS 17	18	19	20	21
22	23	FIN 24	25	26	27	28
29	30	TF 31				

AUGUST

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SEPTEMBER

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23	24	FIN 25	26	27	28	29
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OCTOBER

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14	15	TF 16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER

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4	5	6	7	8	9	10
11	H12	13	14	15	16	17
18	19	20	21	H22	H23	24
25	26	27	28	29	30	

DECEMBER

S	M	T	W	Th	F	S
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16	17	18	19	20	21	22
23	24	H25	26	27	28	29
30	31					

Economic Forecasts: Mar. 7-14; Jul. 18-27; Aug. 17-27

Last Updated Date: 2/14/2018

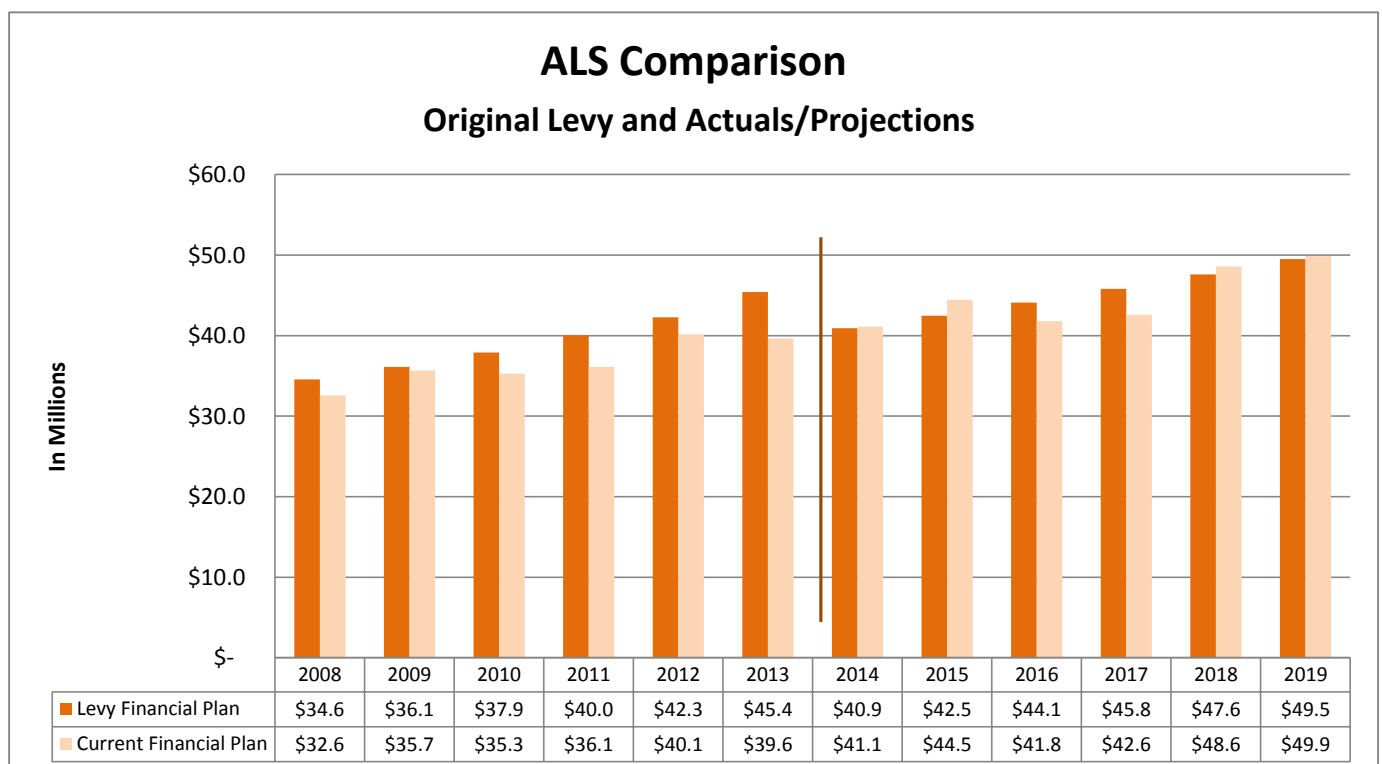
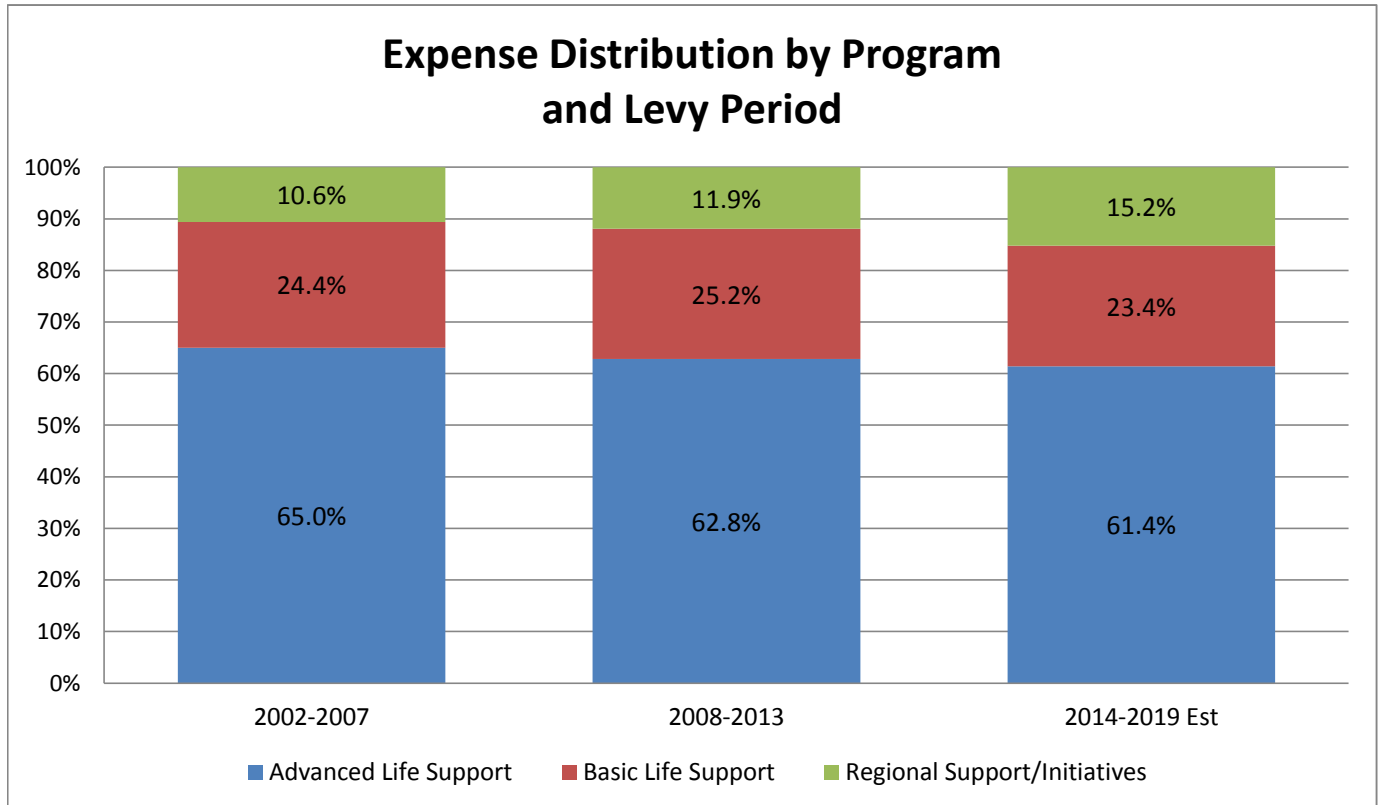
	Task Force
	Finance Subcommittee
	ALS Subcommittee
	BLS Subcommittee
	Regional Services Subcommittee

Changes made from previous version:

- March ALS meeting moved from 3/13 to 3/15
- July Finance meeting moved from 3/26 to 3/24
- September Finance meeting moved from 3/27 to 3/25
- October Task Force meeting moved back one week

Advanced Life Support Services

Historical Financial Information



Advanced Life Support Systems

Current ALS funding allocations

- How** Funding for ALS allocation currently based on a per unit allocation. Each agency's funding is a set amount multiplied by the # of unit they provide.
- Why** This was established as a way to be fair and allow each agency to manage the funds based on their particular cost structure and needs. Some agencies have higher or lower costs in different areas and it was believed that a unit allocation would smooth these out when all costs were taken into consideration.
- Types** **Operating Allocation** -- ordinary yearly costs of providing services divided into three areas: labor costs, supplies and services, indirect and overhead costs
Equipment Allocation -- vehicles, equipment, smaller capital improvements
- What** Fully fund all eligible ALS costs. *Eligible costs* include costs required to operate ALS units (does not include ALS support of non-ALS costs).

ALS Operating Allocation	2017 Allocation	Inflator
Labor Costs: Includes salaries and overtime for paramedic, Medical Services Officers (MSOs/Field Supervisors), Paramedic Students, Office MSOs, ALS Chief and support staff. Includes medical direction.	\$ 1,939,132	CPI-W + 1%
Other Costs: Includes pharmaceuticals, medical supplies, uniforms, dispatch, communications/radio, vehicle maintenance & fuel, facility costs, training, informational technology, and administrative expenses.	\$ 203,715	various [add some level of detail]
Indirect/Overhead Costs: Includes human resources, payroll, legal, risk and other indirect expenses	\$ 164,298	CPI-W + 1%
TOTAL OPERATING ALLOCATION PER UNIT (2017)	\$ 2,307,145	Compound

ALS Equipment Allocation	2017 Allocation	Inflator
Equipment costs including medic, MSO & staff vehicles, defibrillators, stretchers, radios, etc.	\$ 90,825	Vehicle PPI

TOTAL ALLOCATION PER UNIT	\$ 2,397,970
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Advanced Life Support Services

Challenges & Proposals (KC EMS Fund: Zone 1 & 3)

1. Labor and Benefit Costs

Challenge:	Labor and benefit costs have increases more than current allocation inflator of CPI+1%.
Proposal:	Consider an adjusted inflator that more closely matches historical labor costs.

2. Allocation based on average cost

Challenge:	Basing allocation on average costs means that some agencies have cost will be higher than average. In past this has been variance was smaller and more workable.
Proposal:	Consider different statistical measure to calculate per unit costs or other policy option to cover ALS agencies with costs above the system average. Potentially consider an alternative cost control mechanism or review process.

3. Using variable cost structure to cover fixed costs

Challenge:	Each agency has a set amount of fixed costs for ALS Program Administration that does not fit well into the current per unit methodology. This includes costs associated with ALS Chief (one per agency), Field and Admin MSOs, administrative support staff, Medical Direction, and associated costs. Current methodology creates funding challenges for smaller agencies (Shoreline and Redmond both operate 3 units; Bellevue 4; KCM1 9)
Proposal:	Separate out these costs into a separate part of the allocation (ALS Program Administration Allocation). Fund at a base amount per agency plus potential multiplier for agencies with more than 3 units.

4. Highly variable costs

Challenge:	Costs associated with retirements, promotions, and training new paramedics are variable depending on labor agreement, and changes made year-to-year at Harborview (particularly changes that affect amount of overtime) and dynamics that may be unique to a particular agency. Managing funding across multiple years adds administrative costs to agencies. Other costs, such as dispatch costs, are outside of the control of an individual agency and highly variable between agencies or zones.
Proposals:	<p>(a) Estimate costs at a system level and place funds in an ALS System Cost Allocation. Agencies would have access to these funds to cover costs on a reimbursable basis.</p> <p>(b) Investigate options to cover other costs and opportunities related to retirements, promotions and new paramedics. Could include investigating options addressing barriers for KC EMTs to become paramedics within the system. Could structure as Strategic Initiative or as part of ALS System Cost Allocation.</p>

5. Transparency of ALS Unit Costs

Challenge:	KC EMS Fund unit allocation includes all funds necessary to support ALS and does not differentiate between actual costs of services (paramedics/medic units) and other costs necessary to support ALS (such as administrative and student costs). This makes it difficult to understand cost variations when comparing to agencies that differentiate ALS support and management from ALS unit costs.
Proposal:	Separate costs into ALS Unit Allocation . This would include costs directly associated with paramedics in a unit on the road and include paramedic labor costs, and operating costs related to medical supplies, pharmaceuticals, communication, IT costs related to providing service, vehicle, facility, and indirect costs associated with unit costs such as payroll, human resources, risk, etc. Proposal is to fund on a per unit cost basis.

6. Support for other EMS programs

Challenge:	EMS Financial policies currently define ALS allocation reimbursable costs as costs directly associated with providing ALS services. This does not include additional costs to support BLS agencies, other parts of the system. During this levy period, both ALS and BLS agencies are seeing an advantage to having ALS resources (and funding available) to support BLS agencies and/or improve how ALS and BLS work together.
Proposal:	Look at funding outside of the ALS allocation to specifically allow ALS agencies funds to support and work with BLS agencies. Potential options could be a separate set-aside for ALS, a Strategic Initiative, or inclusion in other projects.

Advanced Life Support Systems

Potential changes to allocation structure to reflect challenges

Fund variable costs (direct paramedic services) using a variable cost model -- *ALS Unit allocation*

Fund fixed costs, such as basic ALS management, using a fixed cost model (with adjustments for larger agencies as appropriate) -- *ALS Program Administration allocation*

Fund costs that vary significantly year to year and agency by agency from a separate ALS wide allocation -- *ALS System Cost Allocation*

Fully fund all eligible ALS costs. *Eligible costs* include costs required to operate ALS units (does not include ALS support of non-ALS costs).

ALS Operating Allocation	Funds distributed based on
Unit Cost Allocation -- costs related to direct paramedic services (paramedics, medical supplies, pharmaceuticals, vehicle and facility operating and maintenance costs, communications and other costs associated with direct paramedic services)	Per Medic Unit
ALS Program Administration Allocation -- costs associated with management, medical direction, administration, and supervision of direct paramedic services.	Per Agency (+ adjustment for larger agencies)
ALS System Cost Allocation -- system wide allocation to cover highly variable costs such as paramedic students, dispatch; could include costs associated with retirements and transition costs for EMTs becoming paramedics in other agencies.	Actual Costs (or actual eligible costs)

ALS Equipment Allocation	Funded by
Equipment costs including medic, MSO & staff vehicles, defibrillators, stretchers, radios, etc. (may divide between unit and program admin costs)	Per Unit

ALS -- Outside the allocation	Funding
Set-aside fund or Strategic Initiative(s) to fund opportunities for ALS support and work on non-ALS direct service issues including BLS agencies and other EMS programs	TBD
System wide initiatives such as wellness and vulnerable populations initiatives that support ALS providers and services	Outside of ALS
Additional support for Performance Measures and using ESO.	Outside of ALS

Advanced Life Support Services

Efficiencies, Effectiveness and Best Practices (KC EMS Fund: Zone 1 & 3)

Past & current:

Vehicles – reduce vehicle expenditures:

- Medic Units (patient transport)
 - Increase lifespans of Medic Transport Vehicles
 - Have been able to use “remount” options for some vehicles
- Manage lifespans of other vehicles

Power Stretchers – reduce injuries and liabilities; remount reduce \$\$

- Implement Power Stretchers and Lift systems into all ALS vehicles to reduce injuries and liabilities related to stretchers
- Consider refurbishing stretchers at end of normal life

Implement Operative IQ Software (some agencies)

- Improves efficiency of tracking vehicle and inventory
- Improves effectiveness in managing inventory costs (reducing expired pharmaceuticals)

Pharmaceuticals

- Implement savings due to regional purchasing (including companies honoring regionally negotiated costs)

Dispatch (ongoing)

- Continued and ongoing review of dispatch relating to appropriate calls for ALS

Advanced Life Support Services

Efficiencies, Effectiveness and Best Practices (KC EMS Fund: Zone 1 & 3)

Potential future ideas:

Managing pharmaceuticals

- Investigate if any additional saving of medical supply & pharmaceutical costs
- Investigate if one ALS agency could take on management and administration of pharmaceuticals to eliminate duplicate tracking, administrative and reporting requirements

Vehicles

- Investigate whether Zone 1 & Zone 3 could agree on specifications for “one standard ALS Medic Unit” and whether this could decrease per vehicle costs

Personnel

- Better utilize our investment in KC EMTs by reducing barriers to becoming a paramedic in the system (where it requires changing agencies).

Personnel & Sharing Resources

- Investigate ways for ALS agencies to share resources, particularly paramedic resources. Currently in highly unusual circumstances one agency may add a temporary unit cover service usually provided by an agency (such as relief for a funeral). Could something like this be utilized if an agency has severe staffing issues?

Dispatch (ongoing)

- Continued and ongoing review of appropriate calls for ALS dispatch

Wellness Initiatives (overall, ALS participates)

- Access to see how initiatives could contribute to decreased injuries and sick leave

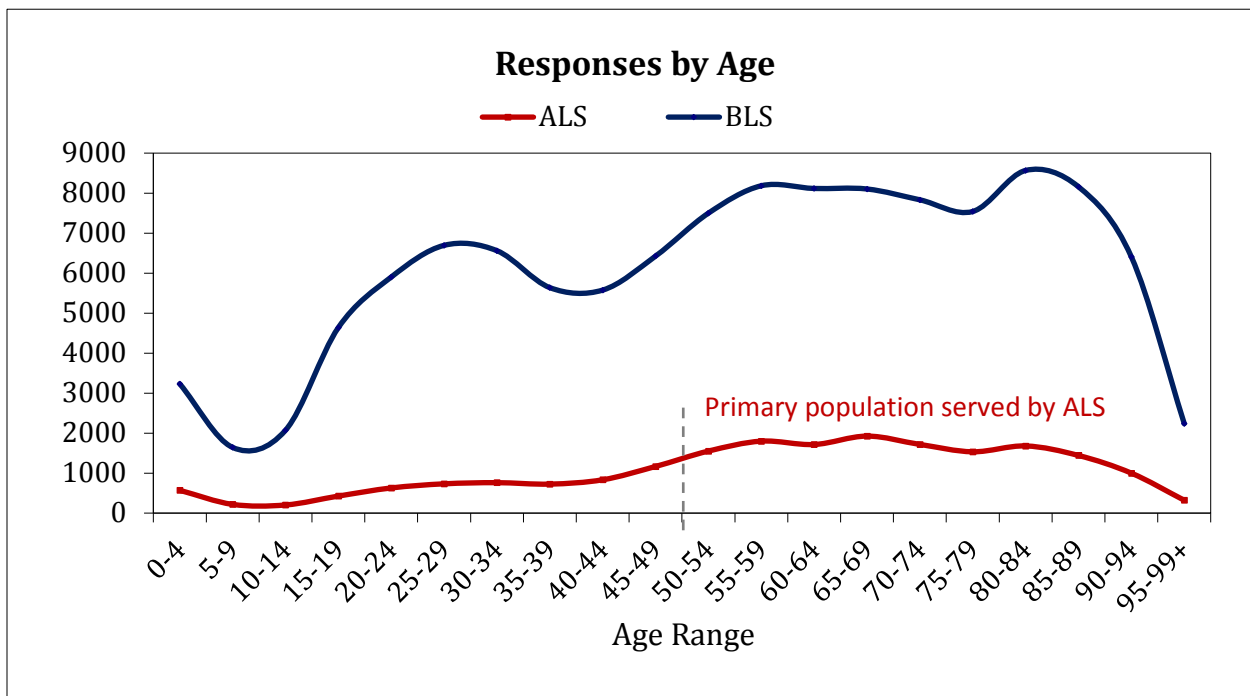
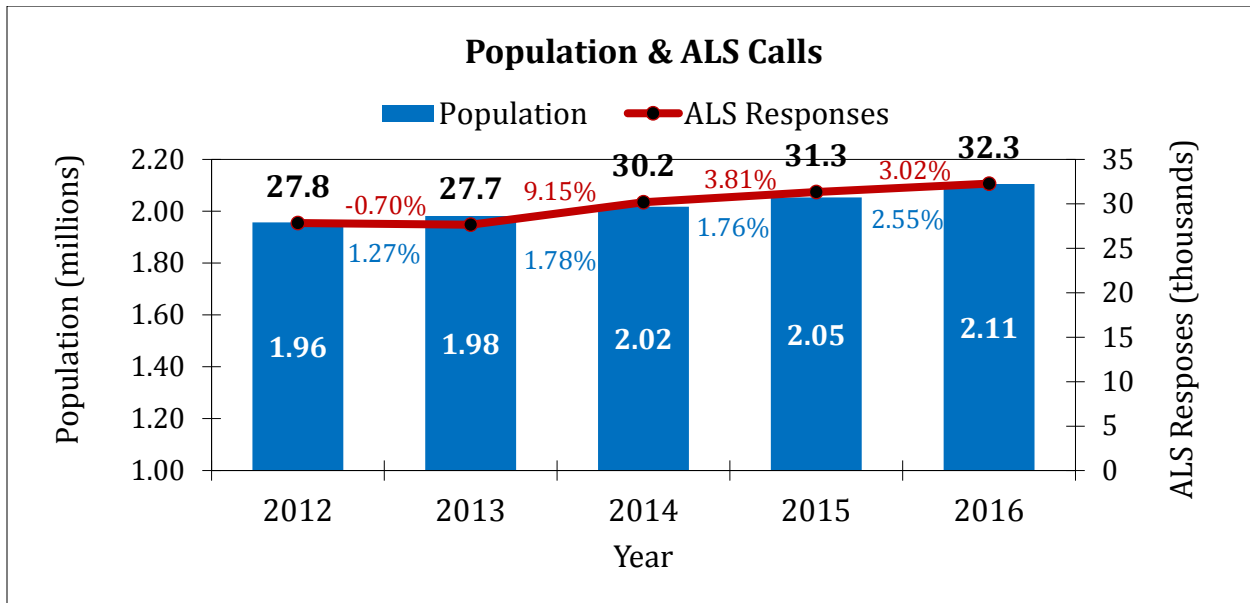
Mobile Integrated Healthcare (outside of ALS)

- Potential reduction in repeat ALS calls or other situations escalating into ALS Calls

ALS Projected Demand Analysis

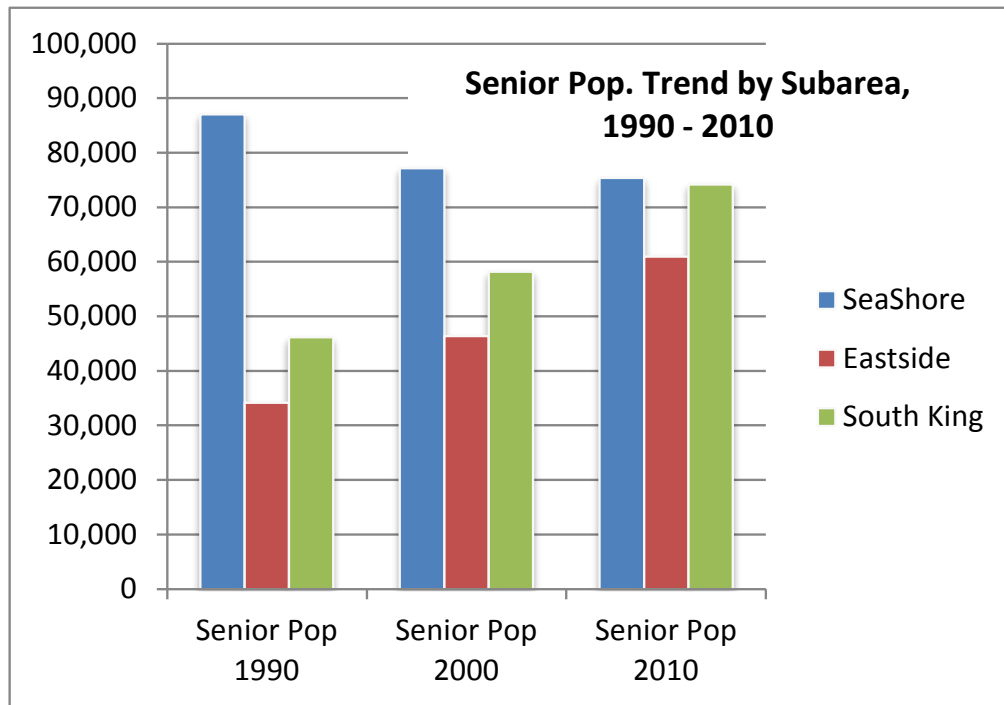
Overview

Projected demand analysis focuses on call volume projections and population growth. Population has historically been closely correlated to EMS growth. The rate of population growth in King County continues to increase more prominently in the last four years as shown in the graph below.

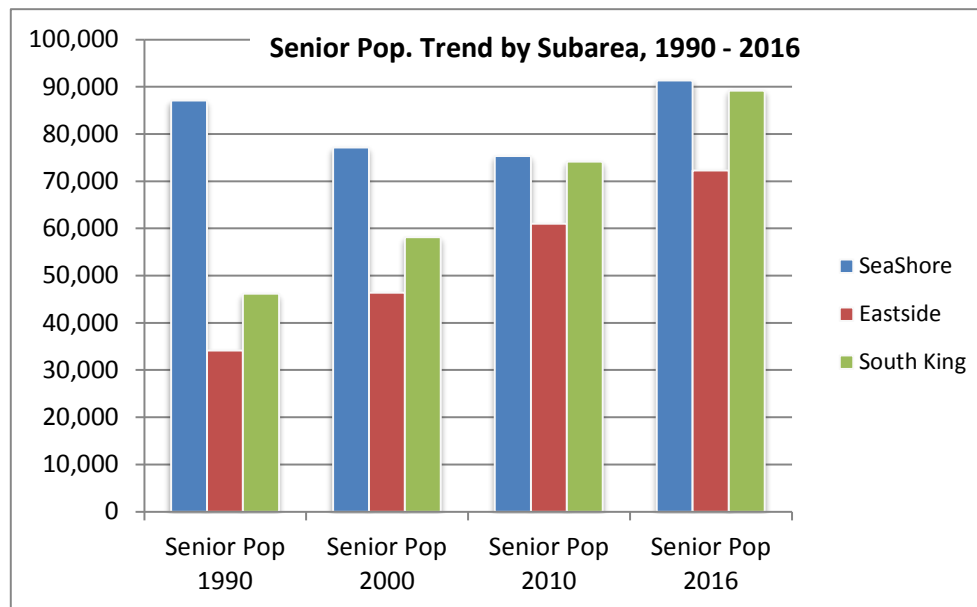


Population Trends – update from King County’s demographer

From 1990 to 2010, King County’s senior population (65 years and older) is increasing more prominently in South King County and the Eastside, whereas, Seattle’s senior population is decreasing.

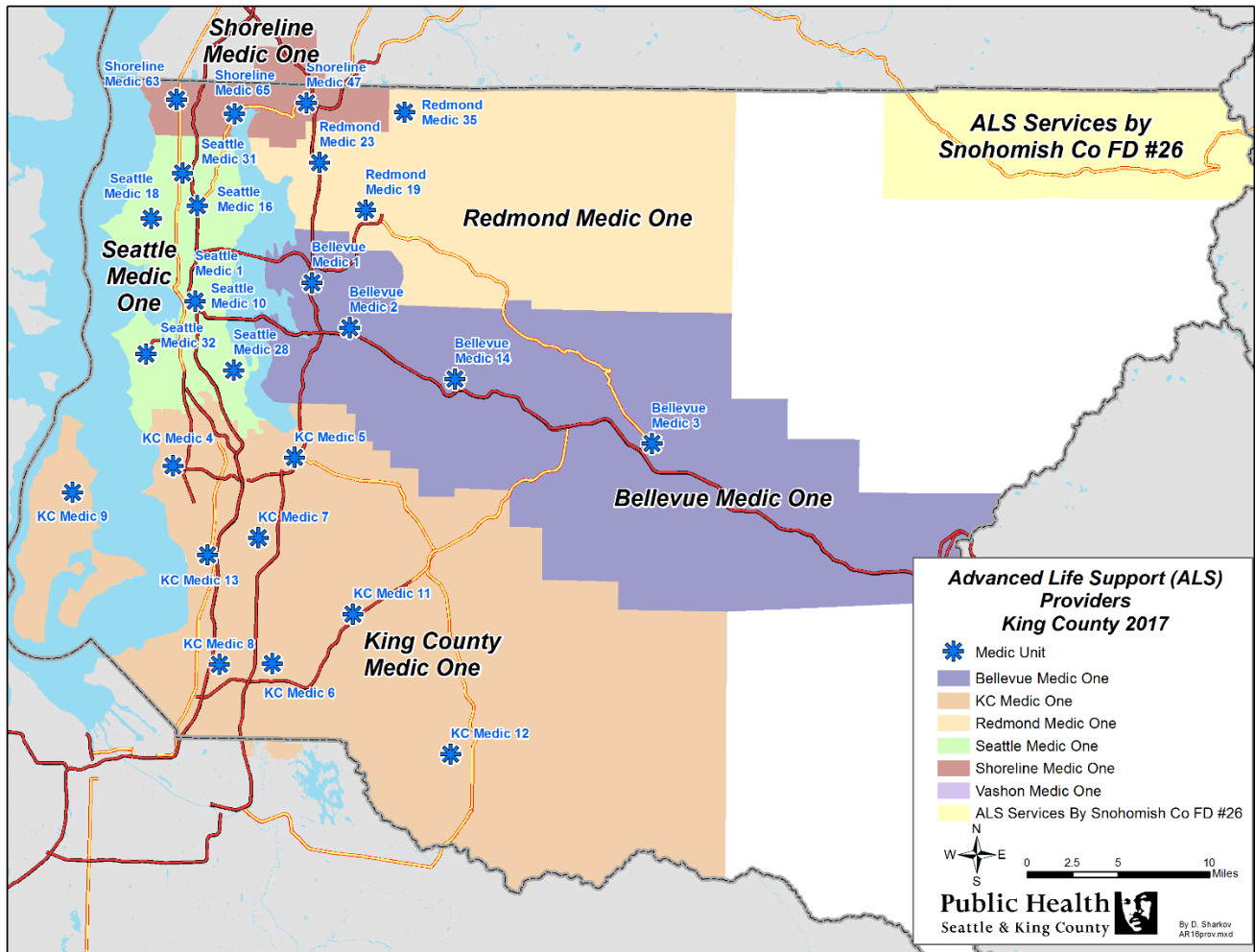


Since 2010, the growth of the senior population grew dramatically across all sub-areas (SeaShore, Eastside, South King).



Projected Demand Analysis Factors

- Population growth
- Call volumes
- Capacity



ALS Capacity & Regional Medic Unit Analysis

Background

The ALS Working Group and EMS Advisory Committee (EMSAC) meet annually in September to discuss the Regional Medic Unit Analysis. This information may be used to inform our ALS capacity. Summary points from 2017 include:

Criteria for Review

1. **Workload Trends** - standard range of 1,400 -2,500 calls for 24-hour units, with exceptions in outlying areas
2. **Median response time trends** - standard median response times <10 minutes, and 80% of calls in <= 14 minutes
3. **Fractile response time trends** - fairly sensitive measures that can often reveal early system response changes; Decreasing fractile trends for <8 min., <10 min., <12 min., <=14 min. indicate some eroding of response times, due to changing workload distributions, unit placement relative to workload, changing traffic, and other factors
4. **Critical patient exposures/skills trends** - include cardiac arrests, intubation, peripheral IV, central line IV, and proportion of paramedics per 100,000 population as defined by the 2009 statement from medical directors

Process of Review

- A. Review **5-year paramedic service trends (2012-2016) countywide** and by medic program and medic unit, including: KCM1, Bellevue, Redmond, and Shoreline
- B. Review **5-year paramedic service trends (2012-2016) into fire departments and districts** to understand local area service
- C. Identify **service gaps** and magnitude of gaps

Observations

- Modest increase in call volumes overall with no change in response times
- Slight increases in critical skills for cardiac arrest calls, IVs, and intubation exposures

Findings

1. Paramedic service **throughout the region continues to remain stable**
2. Paramedic agency performance is **within established standards**
3. No major changes in service outside King County that would trigger policy agreement

Recommendations

1. No new service or unit relocations are necessary at this time
2. Review in 2018 as 2017 data are available

Regional Medic Unit Response Analysis by Incident Year (2012 - 2016): King County

Total Call Volume	Incident Year				
	2012	2013	2014	2015	2016
Primary	27,779	27,597	30,087	31,226	32,500
Secondary	68	55	94	104	81
MSO	2,221	2,322	2,692	2,751	3,055
Total	30,068	29,974	32,873	34,081	35,636

Primary Only:*

Median Total Response Time (minutes)**	8.7	8.7	8.8	8.8	8.9
Median Call Processing Time (minutes)	1.3	1.3	1.4	1.4	1.4
Median Unit Response Time (minutes)	7.4	7.4	7.4	7.4	7.5
Fractiles:					
% < 08 min.	58.4%	58.0%	57.5%	57.7%	56.9%
% < 10 min.	77.4%	77.7%	77.4%	77.8%	76.8%
% < 12 min.	88.0%	88.0%	88.5%	88.5%	88.1%
% < 14 min.	93.0%	93.0%	93.7%	93.8%	93.4%

Critical Skills

Paramedic Intubations***	1,650	1,527	1,268	1,367	1,456
% of Total Calls	5.9%	5.5%	4.2%	4.4%	4.5%
Total Successful Intubations (Source: EMSO Airway QA Report):	1,754				
Paramedic IVs***	10,612	10,410	9,248	9,222	9,902
% of Total Calls	38.1%	37.6%	30.6%	29.4%	30.4%
Cardiac Arrests	759	781	833	800	880
% of Total Calls	2.7%	2.8%	2.8%	2.6%	2.7%
	47%	46%	38%	36%	38%
	13,021	12,718	11,349	11,389	12,238

*Responses excluding calls that are Cancelled Enroute and Requested by BLS at Scene (for processing time) and excluding Call Processing Time (Dispatch Notified to Unit Dispatched) AND Unit Response Time

**Total Response Time = Call Processing Time + Unit Response Time

*** First Successful Attempt (Source: ESO EHR)

