

**Subject: Ottawa Paramedic Service 2024 – 2026 Investment Plan**

**File Number: ACS2023-EPS-OPS-0002**

**Report to Emergency Preparedness and Protective Services Committee on 15  
June 2023**

**and Council 28 June 2023**

**Submitted on June 6, 2023 by Pierre Poirier, Chief, Ottawa Paramedic Service**

**Contact Person: Pierre Poirier, Chief, Ottawa Paramedic Service**

**613-580-2424, extension 27833, [pierre.poirier2@ottawa.ca](mailto:pierre.poirier2@ottawa.ca)**

**Ward: Citywide**

**Objet : Rapport d'investissement 2024 – 2026 du Service paramédic  
d'Ottawa**

**Dossier : ACS2023-EPS-OPS-0002**

**Rapport au Comité des services de protection et de préparation aux situations  
d'urgence**

**le 15 juin 2023**

**et au Conseil le 28 juin 2023**

**Soumis le 6 juin par Pierre Poirier, Chef, Service paramédic d'Ottawa**

**Personne ressource : Pierre Poirier, Chef, Service paramédic d'Ottawa**

**613-580-2424, poste 27833, [pierre.poirier2@ottawa.ca](mailto:pierre.poirier2@ottawa.ca)**

**Quartier : À l'échelle de la ville**

## **REPORT RECOMMENDATION(S)**

That the Emergency Preparedness and Protective Services Committee recommend that Council:

1. Receive the report for information.
2. Approve the following growth pressures be considered in the 2024 Draft Budget:

- a. the addition of 23.00 permanent full-time equivalents (FTEs) with an estimated operating budget requirement of \$2,010,000, and an annualization of \$820,000 in the 2025 Draft Budget, and the purchase of two (2) emergency response vehicles with an estimated capital budget requirement of \$680,000 and operating budget of \$250,000, to help mitigate frontline staff workload as a result of increased emergency call demand pressures; and
  - b. the addition of 3.00 permanent FTEs with an estimated operating budget requirement of \$370,000 towards psychological supports to support employee wellness and reduce occupational stress injuries.
3. Approve the following offload delay pressures be considered in the 2024 Draft Budget:
  - a. the addition of 17.00 FTEs with an estimated operating budget requirement of \$2,080,000, and the purchase of one (1) emergency response vehicle with an estimated capital budget requirement of \$165,000 and operating budget of \$56,000, subject to the confirmation of provincial and/or local hospital funding, to help mitigate frontline staff hours lost in area hospitals beyond 30-minutes, which is reducing the availability of ambulances to respond to calls for service and impeding the Ottawa Paramedic Service's ability to meet response time standards.
4. Approve the following growth pressures be considered into the 2025 Draft Budget:
  - a. the addition of 23.00 permanent FTEs with an estimated operating budget requirement of \$2,050,000, and an annualization of \$840,00 in the 2026 Draft Budget, and the purchase of two (2) emergency response vehicles with an estimated capital budget requirement of \$700,000 and operating budget of \$260,000 to help mitigate frontline staff workload as a result of increased emergency call demand pressures.
5. Approve the following offload delay pressures be considered into the 2025 Draft Budget:

- a. the addition of 17.00 FTEs with an estimated operating budget requirement of \$2,130,000, and the purchase of one (1) emergency response vehicle with an estimated capital budget requirement of \$168,000 and operating budget of \$57,000, subject to the confirmation of provincial and/or local hospital funding, to help mitigate frontline staff hours lost in area hospitals beyond 30-minutes, which is reducing the availability of ambulances to respond to calls for service and impeding the Ottawa Paramedic Service's ability to meet response time standards.
6. Approve the following growth pressures be considered into the 2026 Draft Budget:
  - a. the addition of 23.00 permanent FTEs with an estimated operating budget requirement of \$2,090,000, and an annualization of \$860,000 in the 2027 Draft Budget, and the purchase of two (2) emergency response vehicles with an estimated capital budget requirement of \$710,000 and operating budget of \$260,000 to help mitigate frontline staff workload as a result of increased emergency call demand pressures.
7. Approve the following offload delay pressures be considered into the 2026 Draft Budget:
  - a. the addition of 17.00 FTEs with an estimated operating budget requirement of \$2,170,000, and the purchase of one (1) emergency response vehicle with an estimated capital budget requirement of \$172,000 and operating budget of \$58,000, subject to the confirmation of provincial and/or local hospital funding, to help mitigate frontline staff hours lost in area hospitals beyond 30-minutes, which is reducing the availability of ambulances to respond to calls for service and impeding the Ottawa Paramedic Service's ability to meet response time standards.
8. Subject to the approval of recommendations 3, 5 and 7, direct staff to report back to Council as part of the 2024 budget process on the confirmation of provincial and/or local area hospital funding.

9. Direct the Mayor to engage with the Premier of Ontario and the Minister of Health, outlining the ongoing impacts associated with offload delays and advocate to the Province to implement solutions immediately to reduce offload delays and the number of occurrences and duration of when no ambulances are available in the City of Ottawa (level zero), to ensure public safety and help the Ottawa Paramedic Service meet response time performance standards.

## **RECOMMANDATION(S) DU RAPPORT**

Que le Comité des services de protection et de préparation aux situations d'urgence recommande au Conseil :

1. De prendre connaissance de ce rapport.
2. D'accepter que les pressions exercées par la croissance suivantes soient envisagées dans le budget provisoire de 2024 :
  - a. l'ajout de 23 équivalents temps plein permanents (ETP) avec une exigence liée au budget de fonctionnement estimée à 2 010 000 \$ et une annualisation de 820 000 \$ dans le budget provisoire de 2025, et l'acquisition de deux (2) véhicules d'intervention d'urgence avec une exigence liée au budget des immobilisations estimée à 680 000 \$ et un budget de fonctionnement de 250 000 \$, pour alléger la charge de travail du personnel de première ligne en raison des pressions exercées par l'augmentation de la demande relative aux appels d'urgence;
  - b. l'ajout de 3 ETP avec une exigence liée au budget de fonctionnement estimée à 370 000 \$ pour la mise en place de mesures de soutien psychologique pour favoriser le mieux-être des employés et réduire les traumatismes liés au stress opérationnel.
3. D'accepter que les pressions exercées par le délai de déchargement suivantes soient envisagées dans le budget provisoire de 2024 :

- a. l'ajout de 17 ETP avec une exigence liée au budget de fonctionnement estimée à 2 080 000 , et l'acquisition d'un (1) véhicule d'intervention d'urgence avec une exigence liée au budget des immobilisations estimée à 165 000 \$ et un budget de fonctionnement de 56 000 \$, sous réserve de confirmation de financement de la part du gouvernement provincial ou des hôpitaux locaux, pour réduire le nombre d'heures perdues par le personnel dans les hôpitaux de la région pendant plus de 30 minutes, ce qui réduit le nombre d'ambulances disponibles pour répondre aux appels de service et entrave la capacité du Service paramédic d'Ottawa à respecter les normes quant aux délais d'intervention.
4. D'accepter que les pressions exercées par la croissance suivantes soient envisagées dans le budget provisoire de 2025 :
  - a. l'ajout de 23 ETP avec une exigence liée au budget de fonctionnement estimée à 2 050 000 \$ et une annualisation de 840 000 \$ dans le budget provisoire de 2026, et l'acquisition de deux (2) véhicules d'intervention d'urgence avec une exigence liée au budget des immobilisations estimée à 700 000 \$ et un budget de fonctionnement de 260 000 \$, pour alléger la charge de travail du personnel de première ligne en raison des pressions exercées par l'augmentation de la demande relative aux appels d'urgence.
5. D'accepter que les pressions exercées par le délai de déchargement suivantes soient envisagées dans le budget provisoire de 2025 :
  - a. l'ajout de 17 ETP avec une exigence liée au budget de fonctionnement estimée à 2 130 000 \$, et l'acquisition d'un (1) véhicule d'intervention d'urgence avec une exigence liée au budget des immobilisations estimée à 168 000 \$ et un budget de fonctionnement de 57 000 \$, sous réserve de confirmation de financement de la part du gouvernement provincial ou des hôpitaux locaux, pour réduire le nombre d'heures perdues par le personnel dans les hôpitaux de la région pendant plus de 30 minutes, ce qui réduit le nombre d'ambulances disponibles pour répondre aux appels de service et entrave la capacité du Service paramédic d'Ottawa à respecter les normes quant aux délais d'intervention.
6. D'accepter que les pressions exercées par la croissance suivantes soient envisagées dans le budget provisoire de 2026 :

- a. l'ajout de 23 ETP avec une exigence liée au budget de fonctionnement estimée à 2 090 000 \$ et une annualisation de 860 000 \$ dans le budget provisoire de 2027 et l'acquisition de deux (2) véhicules d'intervention d'urgence avec une exigence liée au budget des immobilisations estimée à 710 000 \$ et un budget de fonctionnement de 260 000 \$, pour alléger la charge de travail du personnel de première ligne en raison des pressions exercées par l'augmentation de la demande relative aux appels d'urgence.
7. D'accepter que les pressions exercées par le délai de déchargement suivantes soient envisagées dans le budget provisoire de 2026 :
  - a. l'ajout de 17 ETP avec une exigence liée au budget de fonctionnement estimée à 2 170 000 \$, et l'acquisition d'un (1) véhicule d'intervention d'urgence avec une exigence liée au budget des immobilisations estimée à 172 000 \$ et un budget de fonctionnement de 58 000 \$, sous réserve de confirmation de financement de la part du gouvernement provincial ou des hôpitaux locaux, pour réduire le nombre d'heures perdues par le personnel dans les hôpitaux de la région pendant plus de 30 minutes, ce qui réduit le nombre d'ambulances disponibles pour répondre aux appels de service et entrave la capacité du Service paramédic d'Ottawa à respecter les normes quant aux délais d'intervention.
8. De demander, sous réserve de l'approbation des recommandations 3, 5 et 7, au personnel de faire un compte rendu au Conseil de la confirmation de financement de la part du gouvernement provincial et/ou des hôpitaux locaux dans le cadre du processus budgétaire de 2024.
9. De demander au maire de s'entretenir avec le premier ministre de l'Ontario et le ministre de la Santé, en vue de faire connaître les répercussions continues en lien avec les délais de déchargement, et de faire des démarches auprès du gouvernement provincial pour mettre en œuvre des solutions immédiates visant à réduire les délais de déchargement et le nombre de cas pendant lesquels aucune ambulance n'est disponible dans la Ville d'Ottawa (niveau zéro) et la durée de ces moments, afin de garantir la sécurité publique et de permettre au Service paramédic d'Ottawa de respecter les normes prévues quant aux délais d'intervention.

## **EXECUTIVE SUMMARY**

The Ottawa Paramedic Service provides patient care and emergency medical coverage to more than one million residents of the nation's capital across 2,800 square kilometres while the Ottawa Central Ambulance Communications Centre receives emergency medical calls through 9-1-1 and dispatches paramedic resources across 10,000 square kilometres of eastern Ontario.

Over the past five years, the Ottawa Paramedic Service has experienced a significant increase in service demand. As described in this report and the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001), key drivers affecting the Ottawa Paramedic Service's overall service demand includes a significant increase in response volume, an increase amount of time that paramedics spend in offload delay, and pre-existing issues affecting Ontario's healthcare system, which have been exacerbated by the COVID-19 pandemic, all of which have negatively impacted all Ottawa Paramedic Service staff.

In 2021 and 2022, there were unprecedented increases in paramedic response volume due to several factors, including population growth, an aging patient demographic and increasingly treating patients with complex medical conditions. In 2021, the Ottawa Paramedic Service response volume was 149,344, representing a 12.6 per cent increase over 2020, and in 2022, response volume was 184,113, representing a 23.3 per cent increase over 2021. Combined, that is a 36% increase in response volume over a two-year period.

Additionally, the Ottawa Paramedic Service continues to be challenged by offload delay at Ottawa hospitals. Offload delay is longstanding and systemic issue that has been worsened by the COVID-19 pandemic. In 2021, the Service spent 57,518 hours in offload delay in Ottawa hospitals and in 2022, the Service spent 93,686 hours in offload delay. While the root causes of offload delay are related to broader issues within the healthcare system, it impedes the Ottawa Paramedic Service's ability to meet legislative requirements and Council-approved targets. Further, offload delay is a significant contributor to level zero events (when there are no ambulances available to transport a patient to hospital).

In 2021, the Ottawa Paramedic Service was a level zero 719 times. In 2022, there were 1,806 level zero events, more than double the events from the previous year. The increase in level zero events is consistent with a considerable increase in response volume and the unprecedented amount of time paramedics spent in hospital offload delay over the past two years. Level zero poses a significant risk to public safety.

Response time performance is based on the Canadian Triage Acuity Scale (CTAS), which sets a score for the patient acuity (severity of illness or injury). CTAS 1 is the highest acuity and CTAS 5 is the lowest. In 2021 and 2022, the Ottawa Paramedic Service did not meet the Council-approved response time targets for CTAS 1, CTAS 2 and sudden cardiac arrest patients. This can be attributed to the overall increase in service demand.

The increase in service demand is affecting overall time on task for paramedics. Time on task is impacted by a number of factors as described in this report, including offload delay at hospitals. Nine times out of 10, time on task should be 90 minutes or less, including 30 minutes for a paramedic crew to transfer patient care to hospital staff. In 2021, the paramedic time on task was 135 minutes (including time spent in offload delay). In 2022, the paramedic time on task was 157 minutes, an increase of 22 minutes per response over 2021.

A review of Workplace Safety and Insurance Board (WSIB) claims and sick leave usage from 2016 to 2022 suggests that the steady increase in service demand, including unprecedented increases in response volume, offload delay, and level zero events, is negatively impacting employee wellness. In 2016, the average number of staff on WSIB was 11.3 each month and by 2022, there were an average of 60.1 staff on WSIB leave each month. The total number of WSIB hours also increased significantly from 46,474 WSIB hours taken in 2016 to 162,757 WSIB hours taken in 2022, an increase of 250.2% over the analysis period. Sick leave hours have also increased from 118,000 hours in 2016 to 143,000 hours in 2022, representing an increase of 25,000 hours over a seven-year period.

As described in this report and the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001), the Service has implemented several initiatives aimed at providing staff with the physical and mental supports they need. Additionally, the Ottawa Paramedic Service continues to work collaboratively with stakeholders, including the Ottawa hospitals, to mitigate service impacts associated with an increasing response volume, and offload delay. As described in this report, the Mental Wellbeing Response Team is an example of a successful initiative the Service has implemented to



reduce transports to hospital by treating and releasing individuals on-scene. Not only does the Mental Wellbeing Response Team help mitigate the impacts of offload delay and reduce level zero, but it provides individuals with the most appropriate care, when and where they need it, in the community.

Since amalgamation of the City of Ottawa, Council has continued to invest in the Ottawa Paramedic Service, acknowledging the steady increase in response volume and the unique challenges associated with the provision of paramedic services over a large geographic area. Between 2015 and 2022, Ottawa City Council invested in the hiring of 120 full time equivalents and allocated capital funding for the procurement of emergency response vehicles associated with these full-time equivalents.

To address the ongoing challenges faced by the Ottawa Paramedic Service as outlined in this report, staff recommend that Council approve the addition of 43 staff in 2024, 40 staff in 2025, and 40 staff in 2026. More specifically, staff recommend that Council approve the addition of 23 permanent full-time equivalents and two emergency response vehicles in the 2024, 2025 and 2026 Draft Budgets to address growth pressures and the addition of 17 full-time equivalents and one emergency response vehicle in the 2024, 2025 and 2026 Draft Budgets, subject to the confirmation of Provincial and/or local hospital funding, to help mitigate offload delay pressures.

The staff investments will assist the Service in meeting response times standards and would increase the hours of operation for the Mental Wellbeing Response Team. Currently, the Mental Wellbeing Response Team operates seven days a week, 12 hours a day, however, with additional investments, the team could expand their hours of operation toward a 24/7 service. Despite best efforts, additional strategies, including financial investments and continued advocacy, are required to address service demand and adequately support staff.

Recognizing that paramedic resources are 50 per cent funded by the Province and it is the Province's responsibility to address systemic changes to the healthcare system, which includes offload delay, staff are proposing that the Mayor engage with the Province to fund 100% of the 17 full-time equivalents in each budget cycle (for a total of 51 FTEs) to address offload delay and reduce the burden on Ottawa taxpayers. Further, staff is also recommending that the Mayor continue to engage with local area hospitals to significantly address offload delay . Staff will report back to Council as part of the 2024 Draft Budget process on the confirmation of funding.

The very nature of the work of a paramedic or Ambulance Communications Officer lends itself to exposure to potentially traumatic incidents on a regular basis which can impact an individual's mental health and wellness. In the last few years, this has been compounded by the COVID-19 pandemic, capacity challenges in healthcare, an increasing response volume, and events triggering moral injury. As such, staff further recommend an additional one-time investment of three full-time equivalents in the 2024 Draft Budget for psychological supports for employee wellness and to reduce occupational stress injuries.

Given the challenges the Service is facing, particularly with offload delay, staff recommend that Council direct the Mayor to engage with the Premier of Ontario and the Minister of Health, outlining the ongoing impacts associated with offload delays and advocate to the Province to implement solutions immediately to reduce offload delays and the number of instances and duration of when no ambulances are available in the City of Ottawa (level zero). By doing this and the Province taking action, public safety will be ensured, and the Ottawa Paramedic Service will be more likely to meet response time performance standards.

## **RÉSUMÉ**

Le Service paramédic d'Ottawa prodigue des soins aux patients et assure des services médicaux d'urgence à plus de 1 million de résidents de la capitale nationale sur un territoire de 2 800 kilomètres carrés, tandis que le Centre intégré de répartition des ambulances d'Ottawa reçoit des appels d'urgence médicale passés au 9-1-1 et assure la répartition des paramédics dans l'est de l'Ontario, sur un territoire dont la superficie est de 10 000 kilomètres carrés.

Au cours des cinq dernières années, le Service paramédic d'Ottawa a connu une hausse marquée de la demande pour ses services. Comme décrit dans le présent rapport et dans le Rapport annuel 2021 et 2022 du Service paramédic d'Ottawa (ACS2023-EPS-OPS-0001), parmi les principaux facteurs ayant une incidence sur la demande générale pour les services du Service paramédic d'Ottawa, on compte une augmentation considérable du nombre d'interventions, le temps excessif perdu par les paramédics à cause du délai de déchargement et les problèmes préexistants ayant une incidence sur le système de santé de l'Ontario, et qui ont été exacerbés par la pandémie continue de COVID-19. Tous ces facteurs ont augmenté le temps consacré à la tâche et ont touché de façon négative l'ensemble du personnel du Service paramédic d'Ottawa.

En 2021 et 2022, le nombre d'interventions du Service paramédic a connu une augmentation sans précédent en raison de plusieurs facteurs, y compris la croissance démographique, le vieillissement des patients et des troubles médicaux plus complexes. En 2021, le Service paramédic d'Ottawa a procédé à 149 344 interventions, ce qui représente une hausse de 12,6 % par rapport à l'année 2020, et a procédé à 184 113 interventions en 2022, ce qui représente une hausse de 23,3 % par rapport à 2021.

En outre, le Service paramédic d'Ottawa continue d'être aux prises avec les difficultés du délai de déchargement dans les hôpitaux d'Ottawa. Le délai de déchargement est un problème systémique de longue date qui a été exacerbé par la pandémie de COVID-19. En 2021, le Service a consacré 57 518 heures à des délais de déchargement dans les hôpitaux d'Ottawa, et en 2022, le Service a consacré 93 686 heures à des délais de déchargement. Bien que les causes explicatives du délai de déchargement soient liées à des problèmes plus généralisés dans le réseau de la santé, ce délai freine la capacité du Service à répondre aux exigences législatives à atteindre les cibles approuvées par le Conseil. Le délai de déchargement demeure également un facteur important au chapitre des incidents de niveau zéro (lorsque le Service ne dispose d'aucune ambulance pour transporter les patients à l'hôpital).

En 2021, le Service paramédic d'Ottawa a atteint le niveau zéro 719 fois. En 2022, il y a eu 1 806 incidents de niveau zéro, ce qui représente plus du double du nombre de l'année précédente. L'augmentation du nombre d'incidents de niveau zéro correspond à l'augmentation considérable du nombre d'interventions et au nombre sans précédent d'heures consacrées à des délais de déchargement au cours des deux dernières années. Le niveau zéro représente un danger pour la sécurité publique.

Le rendement du point de vue des délais d'intervention est calculé selon l'Échelle de triage et de gravité (ETG) du Canada, qui attribue une note pour l'acuité (gravité) de la maladie ou de la blessure du patient. Le niveau 1 de l'ETG correspond à la maladie ou à la blessure la plus aiguë, et le niveau 5, à la maladie ou à la blessure la moins aiguë. En 2021 et 2022, le Service paramédic d'Ottawa n'a pas atteint les cibles de rang percentile approuvées par le Conseil dans les catégories de l'Échelle de triage et de gravité (ETG) 1 et 2, et pour les patients victimes d'un arrêt cardiaque soudain, ce qui peut s'expliquer par l'augmentation générale de la demande de services.

La demande de service accrue a des répercussions sur le temps consacré à la tâche pour les paramédics. Plusieurs facteurs ont une incidence sur le temps consacré à la tâche, comme décrit dans le présent rapport, y compris le délai de déchargement dans

les hôpitaux. Neuf fois sur dix, le temps consacré à la tâche devrait être de 90 minutes ou moins, ce qui comprend 30 minutes pendant lesquelles l'équipe de paramédics délègue la prise en charge des patients au personnel de l'hôpital. En 2021, le temps consacré à la tâche des paramédics a été de 135 minutes (ce qui comprend le temps consacré au délai de déchargement). En 2022, le temps consacré à la tâche des paramédics a été de 157 minutes, ce qui représente une augmentation de 22 minutes par intervention par rapport à 2021.

Un examen par la Commission de la sécurité professionnelle et de l'assurance contre les accidents du travail (CSPAAT) des réclamations et de l'utilisation de congés de maladie, de 2016 à 2022, laisse entendre que l'augmentation constante de la demande de service, y compris des hausses sans précédent du nombre d'interventions, de délais de déchargement et d'incidents de niveau zéro, a une incidence négative sur le mieux-être du personnel. En 2016, le nombre moyen d'employés en congé à la suite d'une demande à la CSPAAT était de 11,3 par mois et, en 2022, ce nombre a augmenté à 60,1 employés, en moyenne. Le nombre total d'heures perdues en congés à la suite d'une demande à la CSPAAT a également augmenté de façon considérable, passant de 46 474 heures perdues en 2016 à 162 757 heures perdues en 2022, ce qui représente une hausse de 250,2 % pendant la période de l'analyse. Le nombre d'heures de congé de maladie a également augmenté de 118 000 heures en 2016 à 143 000 heures en 2022, ce qui représente une hausse de 25 000 heures sur une période de 7 ans.

Comme décrit dans le présent rapport et dans le Rapport annuel 2021 et 2022 du Service paramédic d'Ottawa (ACS2023-EPS-OPS-0001), le Service a mis en œuvre de nombreuses initiatives visant à offrir aux membres du personnel les mesures de soutien à la santé physique et mentale dont ils ont besoin. Le Service paramédic d'Ottawa continue de collaborer avec des intervenants, y compris les hôpitaux d'Ottawa, en vue d'atténuer les répercussions sur la prestation des services attribuables à une augmentation du nombre d'interventions et au délai de déchargement. Comme décrit dans le présent rapport, l'Équipe d'intervention pour le bien-être mental est un exemple d'initiative réussie mise en œuvre par le Service afin de réduire les transports à l'hôpital en traitant les patients sur place et leur donnant congé. En plus d'atténuer les répercussions du délai de déchargement et de réduire les incidents de niveau zéro, l'Équipe d'intervention pour le bien-être mental fournit aux personnes les soins les plus appropriés au moment et à l'endroit où elles en ont besoin dans la collectivité.

Depuis la fusion de la Ville d'Ottawa, le Conseil a continué d'investir dans le Service paramédic d'Ottawa, reconnaissant la hausse constante du nombre d'interventions et les défis uniques liés à la prestation de services paramédics sur une vaste superficie géographique. De 2015 à 2022, le Conseil municipal d'Ottawa a investi dans l'embauche de 120 équivalents temps plein et a accordé un financement pour l'acquisition de véhicules d'intervention d'urgence connexes pour ces équivalents temps plein.

Afin de surmonter les défis auxquels fait face le Service paramédic d'Ottawa, décrit dans le présent rapport, le personnel recommande au Conseil d'approuver l'ajout de 43 employés en 2024, 40 employés en 2025, et 40 employés en 2026. Plus précisément, le personnel recommande au Conseil d'approuver l'ajout de 23 équivalents temps plein et de 2 véhicules d'intervention d'urgence dans les budgets provisoires de 2024, 2025 et 2026 pour faire face aux pressions exercées par la croissance, et l'ajout de 17 équivalents temps plein et l'acquisition de 1 autre véhicule aux budgets provisoires de 2024, 2025 et 2026, sous réserve de confirmation de financement de la part du gouvernement provincial et/ou des hôpitaux locaux, pour atténuer les pressions exercées par les délais de déchargement.

Ces investissements en personnel au permettront au Service de respecter les normes de délai d'intervention et de prolonger les heures de service de l'Équipe d'intervention pour le bien-être mental. En ce moment, l'Équipe d'intervention pour le bien-être mental offre ses services 7 jours sur 7, 12 heures par jour, toutefois, des investissements supplémentaires permettraient à l'équipe d'accroître ses heures de services à 24 heures sur 24 et 7 jours sur 7. Malgré tous les efforts déployés, de nouvelles stratégies, y compris des investissements financiers et la défense continue des intérêts, sont nécessaires pour répondre à la demande de service et soutenir adéquatement le personnel.

Conscient que les ressources paramédicales sont financées à hauteur de 50 % par la province, et qu'il revient à la province d'aborder les changements systémiques au sein du système de santé, qui comprennent les délais de déchargement, le personnel recommande au maire de s'entretenir avec le gouvernement provincial pour lui demander de financer 100 % des 17 équivalents à temps plein au cours de chaque cycle budgétaire (pour un total de 51 ETP) pour contrer les délais de déchargement et réduire le fardeau des contribuables. En outre, le personnel recommande au maire de continuer à s'entretenir avec les hôpitaux locaux afin de s'attaquer avec vigueur aux

délais de déchargement. Le personnel rendra compte au Conseil dans le cadre du processus du budget provisoire de 2024, sur confirmation de financement.

La nature même du travail d'un paramédic ou celui d'un agent de répartition des ambulances implique une possible exposition à des incidents traumatisants sur une base régulière, ce qui peut avoir une incidence sur la santé mentale et le mieux-être d'une personne. Au cours des dernières années, cette réalité a été exacerbée par la pandémie de COVID-19, les difficultés liées à la capacité au sein du système de santé, l'augmentation du nombre d'interventions et les événements qui provoquent des préjudices moraux. C'est pourquoi le personnel recommande l'ajout d'un investissement ponctuel au budget provisoire de 2024 pour permettre l'embauche de trois équivalents temps plein en vue de fournir des mesures de soutien psychologique pour favoriser le mieux-être des employés et réduire le nombre de blessures de stress opérationnel.

Compte tenu des difficultés auxquelles fait face le Service, en particulier en ce qui concerne le délai de déchargement, le personnel recommande au maire de s'entretenir avec le premier ministre de l'Ontario et le ministère de la Santé, en vue de faire connaître les répercussions continues en lien avec les délais de déchargement et de faire des démarches auprès du gouvernement provincial pour mettre en œuvre des solutions immédiates visant à réduire les délais de déchargement, et le nombre de cas et leur durée pendant lesquels aucune ambulance n'est disponible dans la Ville d'Ottawa (niveau zéro). Cette démarche et les mesures prises par la Province permettront de garantir la sécurité publique et permettront au Service paramédic d'Ottawa de respecter plus facilement les normes prévues quant aux délais d'intervention.

## **BACKGROUND**

### **Overview of the Ottawa Paramedic Service**

The Ottawa Paramedic Service provides patient care and emergency medical coverage to more than one million residents of the nation's capital across 2,800 square kilometres. The Ottawa Central Ambulance Communications Centre receives emergency medical calls through 9-1-1 and dispatches paramedic resources across 10,000 square kilometres of eastern Ontario including Ottawa, the United Counties of Prescott-Russell, and the United Counties of Stormont, Dundas, and Glengarry, and the city of Cornwall. The Ottawa Paramedic Service is a team of dedicated and qualified professionals who deliver high quality care and services to the individuals and communities they serve.

## **Statutory Requirements and Funding**

Ontario's Emergency Health Services branch of the Ministry of Health is responsible for emergency medical (paramedic) services. The Ambulance Act and its regulations and standards form the legal framework for the Ottawa Paramedic Service and the Ottawa Central Ambulance Communications Centre. The Ottawa Paramedic Service is a designated delivery agent for the provision of land ambulance services across the city of Ottawa. They are responsible for ensuring that patient care and ambulance transportation are carried out effectively. The Ottawa Paramedic Service is also responsible for supervising staff, maintaining vehicles and equipment, and assuring the quality of service delivery. The Service is 50 per cent funded by the Ministry of Health.

The Ottawa Central Ambulance Communications Centre is 100 per cent funded by the Ministry of Health, however, the Ottawa Paramedic Service is responsible for staffing, administration, reporting, and operational functions, including the provision of ambulance communications services across eastern Ontario.

## **History of Council Investments**

Since amalgamation, Ottawa City Council has approved significant investment in the Ottawa Paramedic Service. Between 2001 and 2011, the Ottawa Paramedic Service increased its paramedic staffing from 337 full time equivalents to 529 full time equivalents in recognition of a 160 per cent increase in response volume that had occurred over that timeframe.

Between 2011 and 2015, the Ottawa Paramedic Service did not increase its staffing complement, despite an increase of 23.7 per cent in response volume over those four years. As a result, in 2014 and 2015, the Service did not meet the Council approved percentile target for Sudden Cardiac Arrest (defibrillator at patient's side) for 2014 or 2015, nor did it meet the Council approved percentile target for CTAS Level 1 (life threatening) patients in 2015.

At its meeting of December 9, 2015, City Council approved a Service Review Program that included several department specific operational reviews including the Ottawa Paramedic Service. The high-level objective of the Service Review was to provide actionable recommendations that will provide cost savings (efficiencies) or result in service improvements or outcomes (effectiveness/response times). More specifically, the Service Review aimed to outline current challenges in meeting response time targets, the estimated growth funding investment required to meet response time targets, and past, present, and planned actions to improve the efficiency and effectiveness of the service.

On February 25, 2016, while the Service Review was underway, a motion was tabled at the Community and Protective Services Committee citing concerns that increasing response volumes were resulting in rural resources being deployed to the urban core where demand is greatest, thereby creating a greater reliance on surrounding municipalities to respond to the City's rural wards. On March 23, 2016, Council approved 12 full time equivalents (identified in Table 1 under 2015) to address the 2015 service demand and to improve response times and mitigate against the number of rural resources being deployed to meet the concentration of calls in the urban core.

On October 26, 2016, Council approved staff recommendations in the Ottawa Paramedic Service Review report, resulting in a total of 40 full time equivalents and associated vehicles to address service growth and demand in 2017 and 2018. Based on trends from the previous five years, the Service projected that response volume would increase by 5.9 per cent in 2016, 2017, and 2018. Council also approved the pre-commitment of 14 full-time equivalents for the 2019 Budget. The Ottawa Paramedic Service received 54 full-time equivalents over the 2019 to 2022 Term of Council, and an additional 14 full-time equivalents were incorporated into the 2023 budget.

As demonstrated in Table 1, since 2015, Ottawa City Council has invested in the hiring of 120 full time equivalents to address year-over-year increases in service demand. As well, Council has allocated capital funding for the procurement of emergency response vehicles associated with these full-time equivalents. Council's approval of full-time equivalents in recent budget cycles have been essential in supporting service delivery during the COVID-19 pandemic.



Table 1: Council Investments 2015 to 2023

<b>Year</b>	<b>Full Time Equivalent</b>
2015	12
2016	12
2017	12
2018	14
2019	14
2020	14
2021	14
2022	14
2023	14
<b>Total</b>	<b>120</b>

Over the years, Council's investments have generally improved response times for the most critical calls, however, as described in the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001), in 2021 and 2022, the Ottawa Paramedic Service did not meet the Council approved percentile rank for CTAS 1 (life threatening), CTAS 2 (urgent) and sudden cardiac arrest patients. This can be attributed to an unprecedented increase in response volume (36% over a two-year period), as a result of several factors including population growth, an aging patient demographic, complex medical conditions, and pre-existing issues affecting Ontario's healthcare system, including offload delay at local hospitals, all of which have been exacerbated by the ongoing COVID-19 pandemic.

### **Municipal Comparison**

As outlined in Document 1, staff researched the response times and investment plans of other municipalities. As expected, municipalities across the province are facing similar pressures to Ottawa. Based on staff's analysis and demonstrated in Document 1, the investment proposed by the Ottawa Paramedic Service is consistent with the approach other municipalities have taken to address the impacts of increased call volumes, offload delays, and pre-existing issues in the healthcare system to their Services.

## DISCUSSION

The Ottawa Paramedic Service takes pride in providing the best possible clinical care to residents of Ottawa. The Service regularly reviews and analyzes patient outcomes, response volumes, response times, and offload delay at local hospitals. The Service then adjusts service delivery to improve service to the community. The primary measures that determine service demand and associated resource requirements are:

- The total number of 9-1-1 calls received;
- The total number of patients assessed, treated, and transported;
- The total number of paramedic resources required to respond;
- The total time on task per response;
- The offload delay measurements;
- A review of patient care documentation; and,
- The number of successful resuscitations.

As described in this report and the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001), key drivers affecting the Ottawa Paramedic Service's overall service demand includes a significant increase in response volume, an excessive amount of time that paramedics spent in offload delay, and pre-existing issues affecting Ontario's healthcare system which have been exacerbated by the ongoing COVID-19 pandemic, all of which have increased time on task for paramedics and negatively impacted all Ottawa Paramedic Service staff.

To address the ongoing challenges faced by the Ottawa Paramedic Service and as outlined in this report, staff recommend that Council approve the addition of 23 full-time equivalents and two emergency response vehicles in the 2024, 2025 and 2026 Draft Budgets to address growth pressures. Further, staff also recommend the addition of 17 full-time equivalents and one emergency vehicle in the 2024, 2025 and 2026 Draft Budgets, subject to the confirmation of Provincial and/or local hospital funding, to mitigate offload delay pressures. Staff further recommend the addition of three full-time equivalents in the 2024 Draft Budget for psychological supports for employee wellness and to reduce occupational stress injuries.

## Paramedic Response Volume

A paramedic response is generated when an emergency response vehicle is assigned to a call by an Ambulance Communications Officer at the Ottawa Central Ambulance Communications Centre. Some calls require more than one response (vehicle) depending on the complexity of the situation and the number and severity of injury of patients. Paramedic response volume is a measure of the number of paramedic responses (vehicles) assigned to a request for service.

Table 2 represents the response volume and the annual percentage growth over the last five years.

Table 2: Response volume and annual percentage growth from 2018 to 2022

Year	Responses	% Change
2018	144,309	3.4%
2019	146,621	1.6%
2020	132,631	-9.5%
2021	149,344	12.6%
2022	184,113	23.3%

In 2020, the Ottawa Paramedic Service response volume decreased by 9.5 per cent over the previous year. This is the first time that the Service has experienced a decrease in response volume since 2013 and can be attributed to the onset of the COVID-19 pandemic and the stay-at-home order issued by the Ontario government. In 2021 and 2022, paramedic response volume increased significantly and returned to a pre-pandemic state of year-over-year increases. In 2021, the Ottawa Paramedic Service response volume was 149,344, representing a 12.6 per cent increase over 2020, and in 2022, response volume was 184,113, representing a 23.3 per cent increase over 2021. In only two years, paramedic response volume increased by 39 per cent. As such, in 2021 and 2022, the Ottawa Paramedic Service experienced difficulty achieving legislated response time performance standards and Council-approved targets.

### *Drivers of Response Volume*

The increase in response volume can be attributed to several factors including an aging patient demographic and population growth. Recently released figures from the [2021 Census](#) show that 19% of Ottawa's population is over the age of 65, and the population aged 85 and older is one of the fastest-growing age groups across the country. Additionally, in Eastern Ontario, the city of Ottawa is projected to grow the fastest (48.3 per cent) from 1.05 million in 2021 to 1.56 million in 2046.

A study<sup>1</sup>, published in the Canadian Journal of Emergency Medicine in August 2022, which looked at ambulance use in Ontario from 2010 to 2019, revealed that Ontarians demand for paramedic and ambulance services has increased by nearly 40 per cent in the last decade, exceeding population growth fourfold (9.4 per cent). People aged 65 or greater accounted for 43.7 per cent of yearly transports and people aged 18 to 39 had the greatest rate of growth in ambulance use during the 10-year study period.

Further, the demand for paramedic services has been amplified by pre-existing issues affecting Ontario's healthcare system which have been exacerbated by the COVID-19 pandemic. While health system pressures have been mounting for years, COVID-19 has caused major disruptions, backlogs in non-emergent care, and shortages in health human resources. This has had a trickle-down effect on other health care services, including our Paramedic Service.

### **Response Time Performance**

The legislated Ottawa Paramedic Service response time reporting framework is defined as the elapsed time from when the first paramedic unit is notified of the call for service to the arrival of a paramedic resource on scene (ambulance or single response unit). Response times across the province are measured and reported publicly on the Ministry of Health website.

Response time standard performance is measured against the Canadian Triage Acuity Scale (CTAS), which sets a score for the patient acuity (severity of illness or injury). CTAS 1 is the highest acuity and CTAS 5 is the lowest. The Ministry of Health determines the response time for CTAS 1 patients while the response time target (percentile rank) is established by Ottawa City Council. The CTAS score can only be determined once a paramedic has arrived on scene and after a medical assessment

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<sup>1</sup> Strum, Ryan P., (2022, August 19). Increased demand for paramedic transports to the emergency department in Ontario, Canada: a population-level descriptive study from 2010 to 2019. <https://link.springer.com/article/10.1007/s43678-022-00363-4>

has been performed. The percentages in Table 3 represent how often a paramedic unit has arrived on scene to provide service to patients within the established targeted response time for each CTAS category.

Table 3: Response Time Performance from 2018 to 2022

Category (Acuity)	Target Time (minutes)	Council Approved Percentile	2018	2019	2020	2021	2022
CTAS 1 (Life Threatening)	8:00 <sup>2</sup>	75%	78.0%	75.1%	75.7%	66.8%	61.8%
CTAS 2 (Urgent)	10:00	75%	80.3%	77.2%	76.6%	71.2%	63.2%
CTAS 3	15:00	75%	91.5%	88.9%	89.1%	85.9%	76.3%
CTAS 4	20:00	75%	94.8%	93.5%	94.4%	92.1%	83.4%
CTAS 5	25:00	75%	96.6%	96.5%	96.6%	94.7%	86.7%

In cases of sudden cardiac arrest, response time is defined as the elapsed time from when the first paramedic unit is notified to the arrival of any person trained and equipped to provide defibrillation. The response time for sudden cardiac arrest is positively impacted if an Automated External Defibrillator (AED) is available at the scene or by the arrival of a police officer, firefighter, or OC Transpo Security, who are each equipped with an AED in their vehicle. The Ottawa Paramedic Service has almost 1,300 AEDs deployed throughout the city.

Table 4 shows the City of Ottawa’s performance against the legislated response time standard and Council-approved percentile for sudden cardiac arrest.

<sup>2</sup> Mandated by Provincial regulation

Table 4: Response Time Performance for Sudden Cardiac Arrest 2018 to 2022

Category	Target Time (minutes)	Council Approved Percentile	2018	2019	2020	2021	2022
Sudden Cardiac Arrest	6:00 <sup>3</sup>	65%	73.2%	76.1%	77.3%	63.8%	48.4%

In 2021 and 2022, the Ottawa Paramedic Service did not meet the Council-approved response time targets for CTAS 1, CTAS 2 and sudden cardiac arrest patients. This can be attributed to a significant increase in response volume, unprecedented service impacts associated with COVID-19, and excessive offload delay at Ottawa hospitals, as described in detail in the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001).

### Offload Delay

Offload delay occurs when paramedics are not able to immediately transfer the care of a patient to hospital staff. Offload delay severely impacts the ability of the Ottawa Paramedic Service to respond to calls, as well as the Service’s compliance with response time standards. Excessive offload delay is a patient health and public safety risk.

The industry best practice performance target for Transfer of Care is within 30 minutes at the 90<sup>th</sup> percentile. More specifically, nine times out of 10, paramedics aim to transfer the care of a patient to hospital staff within 30 minutes so they can return to the community for service. As reflected in Table 5, emergency departments at all Ottawa hospitals are not meeting this performance target.

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<sup>3</sup> Mandated by Provincial regulation

Table 5: 90th Percentile offload delay at emergency departments in Ottawa Hospitals in 2021 and 2022

Facility	90 <sup>th</sup> Percentile Transfer of Care (minutes)	90 <sup>th</sup> Percentile Transfer of Care (minutes)
	2021	2022
The Ottawa Hospital – General Campus	85.70	162.72
The Ottawa Hospital – Civic Campus	61.75	136.00
Montfort Hospital	138.65	224.18
Queensway Carleton Hospital	103.00	167.84
Children’s Hospital of Eastern Ontario	32.04	39.10

In 2021, the Service expended 57,518 hours in offload delay in Ottawa hospitals and in 2022, the Service expended 93,686 hours in offload delay. This represents an average of over 512 hours of paramedic time that were lost per day in 2022 or the equivalent of 42 staff per day.

Offload delay is a complex, chronic, and systemic issue that has created challenges for paramedic services across Ontario and Canada for several years. The root causes are related to broader issues within the healthcare system such as patient volumes, the availability of beds, alternate level of care patients that remain in the hospital, surgical backlogs, access to primary care, and human resource (staffing) pressures. While these issues reside with the Province of Ontario and remain outside the control of the City of Ottawa to resolve, offload delay is a risk to health and public safety and impedes the Ottawa Paramedic Service’s ability to meet legislative requirements and Council-approved targets.

**Level Zero**

Offload delay at local hospitals continues to be a significant contributor to ‘level zero’. The Ottawa Paramedic Service is at “level zero” when there are no ambulances available to transport a patient to hospital (as all ambulance crews are either on a call or in offload delay and therefore unavailable to respond to the next call in the community). Additional contributors to level zero events include:

- Increased time on task
- Increased response volume
- Increased operational impacts (break periods, overtime)
- Paramedic moral injury<sup>4</sup>

Table 6: Level zero events and annual percentage growth 2019 to 2022

Year	Events	% Change
2019	571	N/A
2020	435	-23.8%
2021	719	65.3%
2022	1,806	151.2%

As outlined in Table 6, in 2021, the Ottawa Paramedic Service was at level zero 719 times for a total of 24,310 minutes. In 2022, there were 1,806 level zero events, more than double the events from the previous year, for a total of 73,060 minutes. The increase in level zero events is consistent with a significant increase in response volume and the unprecedented amount of time paramedics spent in hospital offload delay over the past two years.

### Time on Task

Time on task is a measure of the total time a paramedic resource (ambulance or single response unit) spends on a call. Time on task starts when a paramedic resource is notified of a call for service by an Ambulance Communications Officer at the Ottawa Central Ambulance Communications Centre, and ends when a patient is released, when patient care is transferred, or if the call is cancelled and the paramedic resource becomes available for service. Ideally, time on task per call should be approximately 90 minutes at the 90<sup>th</sup> percentile. Meaning, nine times out of 10, time on task should be 90 minutes or less, including 30 minutes for a paramedic crew to transfer patient care to

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<sup>4</sup> According to The Royal, moral injury refers to the impact of challenging experiences that upset a person's value system or moral beliefs. The effects can be enduring, and result in long-lasting emotional and psychological damage.



hospital staff. Table 7 shows the time on task for paramedics at the 90<sup>th</sup> percentile from 2018 to 2022, which includes time spent in offload delay.

Table 7: 90th Percentile Time on Task for Paramedics 2018 to 2022

<b>Year</b>	<b>90<sup>th</sup> Percentile Time on Task (minutes)</b>
2018	102
2019	136
2020	131
2021	135
2022	157

As demonstrated in Table 7, over the past five years, time on task has continued to increase, creating challenges in service delivery and an increased workload for staff. In 2022, the paramedic time on task was 157 minutes, an increase of 22 minutes per response over 2021. Time on task is impacted by a number of factors including paramedic travel times, on-scene times, and offload delay at hospitals.

#### *Paramedic Travel Times*

A paramedic crew travel time to the scene of an emergency call and from the scene to a hospital or alternate destination can be affected by many variables, all of which impact time on task. The distance a paramedic crew must travel, traffic congestion, special events, collisions, and other unexpected traffic incidents can all affect travel time to a scene. Poor weather conditions and severe weather events also play a major role in paramedics' ability to reach the scene of an emergency call.

#### *Paramedic On-Scene Times*

The amount of time paramedics spend at the scene of an emergency call varies. While on scene, paramedics perform a medical assessment and may render treatment, as necessary. As detailed in the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001), the paramedic profession and scope of practice is evolving. Paramedics are integrating new skills and knowledge into practice. Additionally, new patient care models launched by the Ministry of Health permit

paramedics to work within an expanded scope of practice to help fill gaps in the healthcare system and provide individuals the right care in the right place. As a result, the amount of time paramedics are spending at the scene of an emergency call to perform medical assessments and treatments is increasing.

The COVID-19 pandemic has also contributed to an increased time on task. It has become increasingly clear that the management and care of COVID-19 and other respiratory illnesses must be integrated into the Ottawa Paramedic Service's everyday practices to keep staff and patients safe. The donning and doffing of enhanced personal protective equipment, including N95 masks, goggles, level 3 gowns, and gloves, has increased paramedic on-scene times.

### *Offload Delay*

As described in this report, the amount of time the Ottawa Paramedic Service is spending in offload delay is increasing. As the time spent in offload delay increases, the time on task for paramedics also increases.

### *Resource Availability*

As time on task increases, the availability of paramedic resources in the community declines, affecting the Ottawa Paramedic Service's ability to respond to emergencies and meet legislated performance standards and Council-approved targets. A lack of available paramedic resources can lead to level zero events, and non-life-threatening emergency calls (i.e. fractures, falls) will unfortunately and unintentionally be held in the queue for long periods of time (sometimes for several hours). This can negatively impact patient health, patient satisfaction, and can lead to feelings of frustration amongst Ottawa Paramedic Service staff, which can lead to other illness or moral injury.

## **Mitigation Strategies**

The Ottawa Paramedic Service continues to work collaboratively with Ottawa hospitals to identify and implement mitigation strategies to offset the increase in service demand and offload delay to maximize the availability of paramedics in the community. The following initiatives are described in detail in the 2021 and 2022 Ottawa Paramedic Service Annual Report (ACS2023-EPS-OPS-0001).

- New Patient Care Models
- Community Paramedic Programs
- Paramedic Response Unit Program

- Targeted Engagement Diversion Program
- Vertical Patient ('Fit 2 Sit') Program
- Dedicated Offload Nurse Program
- Patient Priority System Decision Support Tool
- Patient Flow Paramedic
- Emergency Department Paramedic
- Patient Ratio Protocol
- Physician Assessment on Stretcher
- Paramedic Treatment on Offload Delay
- Revisions to the Generally Unwell Card (call taking assessment)
- Start of shift Breakaway Crews
- Mobile Logistics Support Unit
- Mental Wellbeing Response Team

### **Impact of Increased Service Demand on Staff**

Over the past five years, the Ottawa Paramedic Service has experienced significant increases in response volume and excessive offload delay at local hospitals, as demonstrated in Tables 2 and 5. This is in addition to other challenges the Service faced as a result of a declining healthcare system performance, made worse by the COVID-19 pandemic. All of these factors have resulted in an overall increase in time on task and the impact to all staff of the Ottawa Paramedic Service is substantial. While Ottawa Paramedic Service staff continue to provide exemplary, caring service to the community, the year-over-year increases in service demand has impacted staff's ability to cope with the overall pressures.

The staff, systems, and processes that support paramedics have been greatly affected by the year-over-year increases in service demand. The workload of staff across all areas of the Ottawa Paramedic Service including logistics, training, equipment, vehicles, scheduling, and quality assurance, has increased. The increasing response volume is also having an impact on the Ottawa Central Ambulance Communications Centre who receive emergency medical calls through 9-1-1 and dispatch paramedic resources for Ottawa, as well as the United Counties of Prescott-Russell, and the United Counties of Stormont, Dundas, and Glengarry including the City of Cornwall. In 2021, the Ottawa

Central Ambulance Communications Centre answered 139,318 emergency calls which required 182,919 emergency vehicle responses, an increase of 9.6 per cent in vehicle responses from 2020. In 2022, the Ottawa Central Ambulance Communications Centre answered 148,132 emergency calls of which 213,865 emergency vehicle responses were required, an increase of 16.9 per cent in vehicle responses from 2021. Note that some emergency calls require more than one resource depending on the complexity of the situation and the number of patients. In 2021 and 2022, the Ottawa Central Ambulance Communications Centre did not meet call processing times for CTAS 1 (life threatening) or CTAS 2 (urgent).

The workload created from the operational challenges, described in this report, impacts paramedic and supervisory staff through increased end of shift overtime, inconsistent access to break periods, and constant response time standard performance pressure from high volumes of calls, which are frequently overlapping during their shift. To maintain staffing levels, the Ottawa Paramedic Service regularly offers overtime, and the costs associated with the increase in service demand are significant. Over the past two years, staff interest and availability for overtime, on-call, and additional paid duties has decreased, creating additional pressures for scheduling staff to backfill absences in order to maintain our essential service levels. The reluctance by staff to accept overtime shifts can be attributed to fatigue from shift overruns and overtime caused by chronic offload delay and increased occurrences of level zero.

### **Proposed Investment**

To develop the full-time equivalent request, staff considered the projected response volume based on trends and time on task goal and reality, as outlined in detail in Document 2. While 2021 and 2022 were exceptional years with significant increases in call volume, in 2023, the Service continues to experience growth consistent with pre-pandemic levels averaging almost six per cent per year. For the calculation of full-time equivalents for 2024, 2025, and 2026, the Ottawa Paramedic Service considered a six per cent year-over-year increase in response volume based on trending for the last 10 years. The response volume decrease in 2020 was a statistical anomaly. Staff will monitor the year-over-year increase to see if the percentage increase is within a reasonable range or if the trending analysis needs to be adjusted. This information would be brought to Committee and Council as part of the Ottawa Paramedic Service Annual Report.

As mentioned in this report, time on task refers to the time from when a paramedic is assigned a call, arrives on scene to assess a patient, to when the patient care is

cancelled or transferred to another health professional. The ultimate goal for the Ottawa Paramedic Service is 90 minutes for paramedic time on task which includes 30 minutes of offload delay. The best performance in the last five years was 102 minutes in 2018 and the actual performance in 2022 was 157 minutes. The assumption for the full-time equivalent ask is that time on task will decrease year-over-year with a diminished offload delay, with the ultimate goal of achieving 90 minutes per call. However, this will not happen overnight, so staff recognize and anticipate a gradual reduction in time on task each year of following new staff and equipment investments. Staff will monitor time on task, including offload delay to determine if the measures taken by the Service and the investments in the Service, are delivering the expected results. The information about time on task and offload delay are reported to Committee and Council as part of the Ottawa Paramedic Service Annual Report.

The Mental Wellbeing Response Team operates under a new Ministry of Health approved model of care ('Treat and Refer'). Since March 1, 2022, when the program was implemented, more than 65 per cent of individuals assessed by Team have been able to receive care in the community and have therefore been diverted away from the emergency department. Comparatively, paramedic crews regularly transport over seventy per cent of patients to the hospital. In addition to reducing the number of transports to hospitals by treating and releasing individuals on-scene, the Mental Wellbeing Response Team can help mitigate the increase in service demand by:

- Reducing offload delay at hospitals (by decreasing the number of individuals transported to emergency departments).
- Reducing repetitive calls to 9-1-1 by providing individuals with the appropriate care and providing tools and supports for navigating the mental health care system.

In 2023 and beyond, the Service will continue to expand the Mental Wellbeing Response Team hours of operation. The goal is to incrementally expand the service in concert with new recruits and additional mental health professional resources.

Based on this anticipated increase in demand for service and response volume, the need to reduce the amount of time on task and the needs for increased support for the Mental Wellbeing Response Team, staff require 23 permanent full-time equivalents per year to address the increased growth pressure. The ultimate goal of this investment is to improve the response performance to ensure patient care and safety.

Based on the calculations of staff, 17 full-time equivalents are required each year to address offload delay. While the root causes of offload delay reside with the Province of

Ontario to resolve, offload delay impedes the Ottawa Paramedic Service's ability to respond to emergency calls for service. This investment is an additional mitigation strategy to reduce the impacts of the hours lost in area hospitals beyond the 30-minute anticipated offload delay. Therefore, the Ottawa Paramedic Service is recommending the addition of 17 full-time equivalents each year to offset the hours lost in offload delay and to create more system capacity by maximizing the availability of paramedic resources in the community, which can reduce level zero events and improve public safety.

The Ottawa Paramedic Service is 50 per cent funded by the City and 50 per cent funded by Province. The shared funding model is predicated on a functional healthcare system that does not require the municipality to fund care within the hospital. As such, the Province has the responsibility to make systematic changes to the healthcare system, which includes reducing offload delay for paramedic services. Staff are proposing that the Mayor engage with the Province and request that they fund 100 per cent of the 17 full-time equivalents in each budget cycle (for a total of 51 FTEs) to address offload delay and reduce the burden on Ottawa taxpayers. Further, staff is also recommending that the Mayor continue to engage with local area hospitals to significantly address offload delay. Staff will report back to Council as part of the 2024 Draft Budget process on the confirmation of funding.

When there is an increase in full-time equivalents, additional vehicles are required. Staff assess that for every 12 paramedics hired one vehicle is required to staff for a 24-hour period, based on the equation outlined in Document 2. Therefore, staff are requesting two vehicles from 2024 – 2026 to coincide with the permanent full-time equivalents for growth and one vehicle from 2024 – 2026 to coincide with the full-time equivalents for offload delay.

### **Employee Wellness**

The Ottawa Paramedic Service aims to provide a workplace that is supportive of employee's health, safety, and well-being. Employee wellness and a positive workplace culture are crucial to delivering high quality care and enhancing both patient and provider experience. Challenging workloads and cumulative exposure to stressful events can severely impact the psychological health and wellbeing of employees.

Employee wellness has been a key consideration for the Ottawa Paramedic Service for several years. The work completed on mental health and wellbeing is outlined in the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001).

*Workplace Safety and Insurance Board (WSIB) and Sick Leave*

The very nature of the work of a paramedic or Ambulance Communications Officer lends itself to exposure to potentially traumatic incidents on a regular basis which can impact an individual’s mental health and wellness. In the last few years, this has been compounded by the COVID-19 pandemic, capacity challenges in healthcare, an increasing response volume, and events triggering moral injury.

On April 5, 2016, the Ontario Government enacted legislation which presumes that a diagnosis of posttraumatic stress disorder in first responders, including paramedics and communications officers) is work-related. The presumptive legislation aims to provide individuals with faster access to resources and treatment.

Claims

As shown in Table 8, since 2016, the number of WSIB claims has increased year-over-year, with significantly more claims submitted in 2021 and 2022. The steady increase in lost time due to work-related injury or illness can negatively impact resource availability, which can lead to more level zero events.

Table 8: Ottawa Paramedic Service Claims Approved by the WSIB 2016 to 2022

<b>Year</b>	<b>WSIB Claims Approved</b>	<b>% Change</b>
2016	197	N/A
2017	203	+3.05%
2018	189	-6.90%
2019	205	+8.47%
2020	212	+3.41%
2021	247	+16.51%
2022	234	-5.26%%

Since 2016, when the presumptive legislation was enacted, claims related to ergonomics (overexertion, repetition) have declined, whereas claims related to psychosocial hazards (assaults; harmful, traumatic, or stressful events) have increased. The increase in psychosocial claims reflects the impact that increased service demand has on the health and wellbeing of staff.

Costs

As shown in Table 9, since 2016, WSIB costs have increased year-over-year. This is consistent with an increase in WSIB claims over the same period of time. Costs associated with WSIB claims are anticipated to continue increasing.

Table 9: WSIB costs from 2016 to 2022

Year	WSIB Costs
2016	\$2,009,394.84
2017	\$2,368,029.30
2018	\$2,984,734.01
2019	\$4,688,261.18
2020	\$5,424,349.02
2021	\$6,263,080.18
2022	\$7,062,448.00

Hours

The average number of staff on WSIB has increased significantly over the analysis period of 2016 to 2022. In 2016, the average number of staff on WSIB was 11.3 each month and by 2022, there were an average of 60.1 staff on WSIB leave each month.

Additionally, from 2016 to 2022, the total number of WSIB hours has increased significantly. In 2016, there were a total of 46,474 WSIB hours taken and in 2022, there were a total of 162,757 WSIB hours taken, an increase of 250.2% over the analysis period. As well, the average number of WSIB hours per employee increased



substantially from 77.3 to 225.5 hours. While each individual case is different, and some staff may be out of the workplace longer than others, this data suggests that the length of time staff are out of the workplace for WSIB-related injuries has also increased.

### *Sick leave*

While WSIB claims have been rising year over year, sick leave hours have also increased. From 2016 to 2022, the total number of sick hours used in the Ottawa Paramedic Service has grown from 118,000 hours to 143,000 hours, representing an increase of 25,000 hours.

## **Efforts to Support Staff**

### *Return to Work Initiatives*

The Service's Gradual Return to Service Program (GRASP) assists paramedics returning to the workplace who have been absent for more than 90 calendar days due to a variety of reasons including physical or psychological injury or illness. The GRASP is tailored to meet individual needs and includes a wide range of resources and tools, such as policies, procedures, and training, all aimed at helping paramedics re-familiarize themselves with their substantive role in support of a safe and successful reintegration into the workplace.

In 2022, the Ottawa Paramedic Service introduced a new collaborative approach to assist staff in their return to work following a leave of absence of any duration. Specifically, staff returning to the workplace from a leave or absence are supported by a team of individuals who work together to design a return to work plan that meets their individual needs. In addition to the individual who is returning to work, this team may include a manager from the unit the employee is returning to, staff from Training and Development, scheduling staff, representatives from Human Resources (if applicable), and any additional supports, as necessary. The aim of this approach is provide staff with guidance and support during their time of transition so they can return to the workplace safely and with confidence. This proactive and collaborative approach is an enhancement of existing return to work processes and compliments the GRASP.

### *Equipment for Injury Prevention*

In the Fall of 2017, the Ottawa Paramedic Service began introducing power stretchers in ambulances to reduce and prevent musculoskeletal injuries amongst paramedics. Power stretchers use a battery-operated hydraulic system that lowers and raises the

stretcher at the touch of a button. Additionally, the stretchers are equipped with a power load fastener that loads the stretcher into the vehicle. By May 31, 2020, all Ottawa Paramedic Service ambulances were equipped with a power stretcher.

Paramedics also use patient transfers sheets which are made from low friction materials (as opposed to linen or cotton) that make it easier to move and readjust patients into new positions while they are on the stretcher. As well, these sheets are used for transferring patients from the stretcher to a hospital bed, eliminating the need to lift patients, which can reduce and prevent musculoskeletal stress and strain.

Stair chairs allow paramedics to carry patients up and down stairwells and other tight spaces when using a stretcher is not safe or possible. Since 2008, the Ottawa Paramedic Service has been using a stair chair with a track system that glides patients up and down stairs without carrying or lifting. This reduces fatigue and the risk of injury amongst paramedics.

### *Suitability Assessments*

In 2022, as part of the internal recruitment and selection process to fill paramedic positions on the Mental Wellbeing Response Team, the Ottawa Paramedic Service engaged a psychological services organization that provides mental health support for first responders to complete suitability assessments of applicants. Paramedics working on the Mental Wellbeing Response Team respond to 9-1-1 calls for assistance where mental health or substance use issues are contributing factors. As such, there is potential for increased stress and vicarious trauma to members of the team. The suitability assessments are a screening tool to identify any current mental health vulnerabilities amongst staff that could be further exacerbated by working on the Mental Wellbeing Response Team. The goal is to protect staff who may be at risk of developing operational stress injury.

### *Peer Support*

The Ottawa Paramedic Service Peer Support Program includes 50 peer supporters who are available 24/7 to provide staff with emotional support for work and life stressors. Over the years, Peer Support interactions with staff have been steadily increasing. In 2021, the Peer Support Team interacted with 181 individuals with a total of 275 formal interactions. In 2022, the Team interacted 226 individuals with a total of 365 formal interactions with staff. In 2022, the number individuals who interacted with the Peer Support Team increased by 25 per cent over the previous. Additionally, in 2021 and

2022, the Peer Support Team completed hundreds of check-ins with employees who were out of the workplace on sick leave, long-term disability, or WSIB related injuries.

Additional supports are available to staff as described in the 2021 and 2022 Ottawa Paramedic Service Annual Report (ACS2023-EPS-OPS-0001).

### **One-time Investment**

To address the ongoing and significant impact of WSIB claims and sick leave that are increasing each year and further enhance the work of the service, in 2024, staff are recommending three permanent full-time equivalents to address workplace wellness and represents a one-time increase. These positions would start in January 2024 and will provide staff with the necessary mental health supports to reduce operational stress injury. The overall goal is to keep Service staff well and healthy to continue to provide excellent service to the residents of Ottawa.

### **Advocacy**

The Ottawa Paramedic Service recognizes that Ottawa City Council and the Service itself can only do so much to address the pressures that influence response times and time on task. While the Ministry of Health has announced plans to ease pressure on emergency departments, there is an immediate need for ongoing support and advocacy from Council for issues affecting service delivery and public safety in Ottawa, including offload delay. As such, staff recommend that Council direct the Mayor to engage with the Premier of Ontario and the Minister of Health, outlining the ongoing impacts associated with offload delays and advocate to the Province to implement solutions immediately to reduce offload delays and the number of instances and duration of when no ambulances are available in the City of Ottawa (level zero). With the Province taking action, along with City Council's investments, public safety will be ensured, and the Ottawa Paramedic Service could begin to improve response time performance standards.

### **FINANCIAL IMPLICATIONS**

The financial implications have been identified and explained in the body of the report.

### **LEGAL IMPLICATIONS**

Pursuant to the Subsection 4(1)(a) of the *Ambulance Act*, the Ministry of Health has a duty and the power to ensure, throughout Ontario, the existence of a balanced and integrated system of ambulance services. As such, the recommendations relating to

approaching the Province set out in this Report are aimed at improving integration of the ambulance service and thus further this legislative provision. In addition, the City of Ottawa has an obligation pursuant to Subsection 6(1)(b) of the *Ambulance Act* “for ensuring the proper provision of land ambulance services in the municipality in accordance with the needs of persons in the municipality.” In discharging this responsibility, the City must “ensure the supply of vehicles, equipment, services, information and any other thing necessary for the proper provision of land ambulance services in the municipality in accordance with this *Act* and the regulations.” The determination of what constitute the “needs of persons in the municipality” is left to City Council and is effectively determined by Council’s establishment of the response time standards required by the regulations to the *Ambulance Act*, which are referenced earlier in this Report. The discretion in City Council to make this decision as to ambulance service standards acknowledges its policy-making role in balancing the service expectations of residents in the municipality with the cost of providing a particular level of ambulance service, “bearing in mind the budgetary restraints imposed and the availability of personnel and equipment”, to use the phrase articulated by the Supreme Court of Canada.

Where the City fails to meet service standards that have been established by Council in its policy-making role, the City is potentially exposed to the risk of claims alleging failure in meeting a purported duty of care to persons who have suffered injury or loss. The courts have stated that a duty of care is never imposed in the abstract and must be connected to the circumstances in which the duty is being exercised. As such, if response time or resourcing is an issue in a particular claim, it will be assessed in the context of all the circumstances and facts of the case, and regarding available policy and other defences. In at least one case from 2009, regarding the dispatch of air ambulances, the Court held that, on the facts of that case, it was not plain and obvious that a duty of care could not arise on the air ambulance provider.

Given the nature of the service provided by paramedics and the potential consequences of failing to meet a duty of care, the value of such claims can be significant. To mitigate against the risk of such claims where there is evidence that the service standard can no longer be met with the resources available, a public authority should consider either a move to lowering the service standard in accordance with its policy-making role – subject, of course, to any statutory minimum service standard – or, alternatively, allocate the resources necessary to ensure that the standard can be met. This Report recommends the latter approach as the appropriate one in the circumstances.

## **COMMENTS BY THE WARD COUNCILLOR(S)**

There are no comments from Ward Councillors as this report is city-wide in nature.

## **CONSULTATION**

There were no public consultations undertaken as this report is administrative in nature.

## **ACCESSIBILITY IMPACTS**

Recommendations from the Ottawa Paramedic Service 2024 – 2026 Investment Plan Report recommend staffing increases to address an increasing service demand and workplace wellness.

An increase in staffing will have positive impacts for people with disabilities. The current pressures on paramedic services across Ontario and Canada as a result of a declining healthcare system are creating barriers and lessening service availability. Many people with disabilities and older adults have a heavier reliance on the medical system to support their health and may regularly require ambulance transport.

Additionally, an increase in staffing will positively impact the vital work of the Mental Wellbeing Response Team which operates under a Ministry of Health approved model of care (Treat and Refer). The Team assesses and provides mental health care in the community thereby diverting individuals away from the emergency department and provides enhanced supports to people with disabilities to navigate the mental health care system. This beneficial service offering is reducing the number of transports to hospitals by providing individuals with the most appropriate care in the community. The Mental Wellbeing Response Team can help mitigate increases in mental health service demand by providing mental health and substance use treatment and follow-up care in the community and reducing offload delay at local hospitals, and reducing repetitive calls to 9-1-1 by providing individuals with responsive and focused mental health care.

Based on the anticipated sustained increase in demand for service, the need to reduce the amount of time on task as well as the needs for increased support for the Mental Wellbeing Response Team, staff require 23 permanent full-time equivalents per year for three years, and the purchase of two vehicles to address the increased growth pressure. An additional 17 full-time equivalents and purchase of one vehicle to the 2024, 2025 and 2026 Draft Budgets, subject to the confirmation of Provincial and/or local hospital funding, is requested to mitigate offload delay pressures at hospitals. The ultimate goal of this staffing investment is to improve service delivery and ensure care,

safety, equity and appropriateness of service and response times to all patients, including people with disabilities.

Furthermore, the ongoing pressures of the current staffing and working conditions have resulted in negative accessibility impacts to staff. The report details increased temporary and episodic disability experienced by staff through the review of data on health and extended health leave and associated WSIB claims. To address this negative impact, a recommendation of three permanent full-time equivalents in the 2024 Draft Budget for psychological supports to support employee wellness and to reduce operational stress injury is requested. This staffing will provide benefit and enhanced support to paramedics who are experiencing episodic, temporary, or permanent disability.

The Ottawa Paramedic Service provides care for patients with disabilities in line with the obligations of the Accessibility for Ontarians with Disabilities Act, 2005 and the Integrated Accessibility Standards Regulation, 191/11. All recommendations contained in this report will support and enhance accessible service provision and improve health service and outcomes to the benefit of people with disabilities as well as support employees with disabilities in their employment, health and working conditions.

## **DELEGATION OF AUTHORITY IMPLICATIONS**

The Ottawa Paramedic Service reports annually to the Emergency Preparedness and Protective Services Committee on the use of delegated authority, as described in Section 17 of Schedule F of the [Delegation of Authority By-law \(2023-67\)](#). The last reporting was on March 30 via the [Use of Delegated Authority in 2022 by Emergency and Protective Services](#).

There are no new delegated authority requirements associated with the recommendations of this report.

## **RISK MANAGEMENT IMPLICATIONS**

Risk implications and associated mitigation strategies are identified in this report and further explained in the Ottawa Paramedic Service 2021 and 2022 Annual Report (ACS2023-EPS-OPS-0001).

Staff have based the investment plan recommendations in this report on the trend analysis of observed and recorded data over the last 10 years. The recommendations are based on the best estimate using information that is available. Staff have estimated

that response volume will continue to increase annually at a rate of 6 per cent, however, future growth may be more or less. Staff will continue to monitor service demand and growth and report to Committee and Council as part of the Ottawa Paramedic Service Annual Report. Should any adjustments be required, staff will advise Committee and Council as soon as possible.

Additionally, staff have estimated the investment required for offload delay based on the worst average times for total time on task. Staff recognize that offload delay may improve or worsen depending on the state of the overall healthcare system. As such, staff will continue to monitor offload delay at Ottawa hospitals and report to Committee and Council as part of the Ottawa Paramedic Service Annual Report. Should any adjustment be required, staff will advise Committee and Council as quickly as possible.

### **RURAL IMPLICATIONS**

As per the [Ambulance Act](#), ambulance service in Ontario is seamless, meaning that the closest available ambulance is dispatched to respond to emergencies regardless of its municipal borders. The provision of seamless service requires neighbouring municipalities to provide care within the boundaries of the City of Ottawa. Similarly, the Ottawa Paramedic Service also provides care in bordering communities.

### **TERM OF COUNCIL PRIORITIES**

The services provided by the Ottawa Paramedic Service and recommendations outlined in this report align with the 2019-2022 Term of Council Priority of Thriving Communities: Promote safety, culture, social and physical well-being for our residents.

### **SUPPORTING DOCUMENTATION**

Document 1: Municipal Comparison – immediately follows the report.

Document 2: Methodology in Determining Required Full Time Equivalents – immediately follows the report.

### **DISPOSITION**

The Ottawa Paramedic Service will action any direction received as part of consideration of this report.

If approved by Council, staff will include the full-time equivalents and the vehicles in upcoming budget documents.

**Document 1: Municipal Comparison of Paramedic Response Time Standards**

Staff undertook a comparison of paramedic response times and investment plans. Table 1 outlines the response time comparison and Table 2 outlines a summary of investments. Response times are reported to the Ministry of Health by all municipalities whereas investment plans are discretionary and require municipal approval.

For response times outlined in Table 1, seven municipalities were reviewed. These include Grey County – Owen Sound, Guelph – Wellington, Hamilton, Niagara Region, Peel Region, Toronto, and York Region.

Table 1: Municipal Comparison of Paramedic Response Time Standards

Municipality	CTAS 1		CTAS 2		SCA	
	Time	%	Time	%	Time	%
Ottawa	8 min	75%	10 min	75%	6 min	65%
Grey County – Owen Sound	8 min	60%	15 min	90%	6 min	40%
Guelph-Wellington	8 min	65%	10 min	75%	6 min	65%
Hamilton	8 min	75%	10 min	75%	6 min	75%
Niagara Region	8 min	90%	15 min	90%	6 min	55%
Peel Region	8 min	75%	10 min	80%	6 min	70%
Toronto	8 min	75%	10 min	75%	6 min	75%
York Region	8 min	75%	10 min	80%	6 min	60%

For investments, staff considered three comparable municipalities. These include Toronto, York Region, and Peel Region. Table 2 demonstrates the overall Paramedic Service investments made by these municipalities.



Table 2: Municipal Comparison of Council Investments

Municipality	Summary of Investments	Total Investment
Toronto	<ul style="list-style-type: none"> <li>• 5-year plan approved by Council 2020 - 2024 (projected 4% annual growth)</li> <li>• 2020: 70 FTEs</li> <li>• 2021: 66 FTEs</li> <li>• 2022: 63 FTEs</li> <li>• 2023: 66 FTEs</li> <li>• 2024: 81 FTEs</li> </ul>	346 FTEs
York Region	<ul style="list-style-type: none"> <li>• 10-year plan approved by Council 2022 – 2031 (project 7% annual growth)</li> <li>• 2022: 7 FTEs</li> <li>• 2023: 43 FTEs</li> <li>• 2024: 38 FTEs</li> <li>• 2025: 37 FTEs</li> <li>• 2026: 42 FTEs</li> <li>• 2027: 44 FTEs</li> <li>• 2028: 37 FTEs</li> <li>• 2029: 30 FTEs</li> <li>• 2030: 35 FTEs</li> <li>• 2031: 38 FTEs</li> </ul>	351 FTEs
Peel Region	<ul style="list-style-type: none"> <li>• 4-year plan approved by Council 2023 - 2026</li> <li>• 2023: 46 FTEs</li> <li>• 2024: 33 FTEs</li> <li>• 2025: 56 FTEs</li> <li>• 2026: 46 FTEs</li> </ul>	181 FTEs

## **Document 2: Methodology in Determining Required Full Time Equivalents**

- 184,113 emergency responses in 2022 and 6% increase in response volume based on a 10-year average = 11,046 more calls (184,113 x 6%)
- In 2022, time on task was 157 minutes. The goal is 90 minutes.

### **How many new hours are required to meet projected demand?**

- 11,046 more calls x 157 minutes/call = 1,734,222 additional minutes = 28,903 additional hours (1,734,222 ÷ 60)
- 11,046 more calls x 90 minutes/call = 994,140 additional minutes = 16,569 additional hours (994,140 ÷ 60)
  - 12,334 additional hours are required as result of offload delays (28,903 – 16,569)

### **How many ambulances are required to respond?**

- One ambulance operating 24/365 produces 8,760 hours per year (24 hours x 365 days)
- 28,960 additional hours ÷ 8,760 ambulance hours = 3.3 ambulances
  - 90 minutes/call is 16,569 additional hours ÷ 8,760 ambulance hours = 1.89 ambulances
  - Therefore, of the 3.3 ambulances, 1.41 (3.3 – 1.89) can be attributed to offload delays

### **How many paramedic full-time equivalents does it take to staff 3.3 ambulances?**

- 12 paramedics are required to staff one ambulance 24/365 across all shifts
- 3.3 additional ambulances x 12 paramedics = 40 paramedic full-time equivalents
  - 23 paramedic full-time equivalents would be required at 90/minutes per call (1.89 additional ambulance x 12 paramedics) + 1.89 ambulances (round up to 2)
  - 17 paramedic full-time equivalents are required due to offload delays (time required beyond 90 minutes) + 1.41 ambulance (round down to 1)