

**SUMMER VILLAGE OF SOUTH VIEW
AGENDA**

Regular Council Meeting held at the Onoway Civic Centre
Due to COVID restrictions, the public may participate via teleconference,
call the office to arrange for same.

Wednesday, March 17th, 2021 commencing at 9:30 a.m.

1. Call to Order
2. Agenda: a) March 17th, 2021 Regular Council Meeting Agenda
3. Minutes: *P1-4* a) January 20th, 2021 Regular Council Meeting
4. Appointments: a) 10:30 a.m. – Jim Woslyng please see attached letter regarding his concerns with respect to his property at 42 Hillside. His concerns include:
 - request to remove caveat and reverse all charges, penalties and interest
 - believes there was omissions on the Development Permit making the conditions unenforceable
 - believes contravention order must contain information on how to appeal to the SDAB not Council, making the order invalid
 - believes he completed his building permit before March deadline, with no deficiencies. Therefore, no reason for admin to advise Council the permit was not completed thereby leading Council to approve caveat

P5-6

Development Officer Diane Burtnick, and Legal Counsel Michelle Gallagher will also be present.

(direction as given by Council at meeting time)

5. Bylaws: a) Bylaw 223-2021 Assessment Review Board and Clerk, further to the previous approval of going with Capital Region Assessment Service Commission for the provision of Assessment Review Board services commencing in the 2021 year, attached is a new bylaw as required under the Municipal Government Act. Our existing bylaw 209-2019 is attached for reference and will be rescinded upon final passing of this new bylaw *(give 1st reading, give 2nd reading, give unanimous consent to consider 3rd reading, give third and final reading)*

*P7-9
(new)*

*P10-12
(old)*

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p 13-14
(new)

p 15-16
(old)

- b) Bylaw 224-2021 Assessment Review Board Clerk as Designated Officer, again further to the change for this service to Capital Region Assessment Services Commission a new designated officer bylaw is also required. Our existing bylaw 210-2019 is again attached for reference and will be rescinded upon final passing of this new bylaw (*give 1st reading, give 2nd reading, give unanimous consent to consider 3rd reading, give third and final reading*)

6. Business:

- a) 2021 Municipal Election – at the January 20th, 2021 meeting Council passed a motion to approve in principle their nomination day on June 12, and election day on July 10 (dates/times/locations) to be finalized at March meeting subject to consultation with Silver Sands and West Cove. Another consideration this year is if Council wishes to have special mail-in ballots, rather than holding an advance vote or possibly in conjunction with advance vote. Specifications required under the act include:
- special ballots must be requested by mail, fax, email, telephone or in person directed to the Summer Village administration office
 - special ballots must be requested on or before 4:00 p.m. Friday June 25th, 2021, and no requests received after that deadline will be entertained
 - special ballots, subject to section 77.2(3.1) of the Local Authorities Election Act must be returned to (received by) the Returning Officer on or before Friday, July 9th, 2021 in person or by mail, all special ballots received after this deadline must be considered rejected as per section 77.3

It is estimated the cost for mail in ballots to be \$4.00/ballot plus administration time.

(that the Summer Village of South View set its nomination day for the purpose of the 2021 municipal election for Saturday June 12th, 2021 from 10:00 a.m. to 12:00 noon at the Darwell Community Hall)

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(that the Summer Village of South View set its election day for the purpose of the 2021 municipal election for Saturday July 10th, 2021 from 10:00 a.m. to 7:00 p.m. at the Darwell Community Hall)

(that the Summer Village of South View set an advance vote for _____, 2021 from _____ to _____ at the Darwell Community Hall)

(that the Summer Village of South View authorize the use of a special mail in ballots for the 2021 municipal election as noted above, or accept for information the discussion on mail in ballots, or some other direction as given by Council at meeting time)

- p17-24
- b) Safety Codes Council – please refer to the attached February 11th, 2021 letter and attached 2020 Annual Internal Review of the Summer Villages Safety Codes Program and Accreditation.

(that the 2020 Annual Internal Review of the Summer Village of South View's Safety Codes Program and Accreditation be accepted for information, or some other direction of given by Council at meeting time)

- p25-26
- c) Capital Region Assessment Services Commission – further to approving the applicable bylaws earlier, now Council is required to appoint the board members and clerk of the Assessment Appeal Board (as per Archie Grover's March 3rd, 2021 email)

(that the Summer Village of South View appoint the following to the Assessment Review Board (ARB):

ARB Chairman - Raymond Ralph

Certified ARB Clerk – Richard Barham

Certified ARB Panelists – Darlene Chartrand, Tina Groszko, Stewart Hennig, Richard Knowles, Raymond Ralph)

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p 27-30

- d) Lac Ste. Anne County/Town of Mayerthorpe Intermunicipal Collaborative Framework negotiations – further to the attached County and Town press releases general discussion to take place at meeting time *(accept the County and Town's new releases for information, or some other direction as given by Council at meeting time)*

p31

- e) The Inspections Group Inc – back in 2018 the Summer Village went to tender (along with some other municipalities) for the provision of our safety code services. At the time South View decided to enter into a 3 year agreement with The Inspections Group Inc and that agreement is coming to an end. We are proposing the attached amending agreement which would be renewed on an annual basis for a potential additional 6 year period *(approve the amending agreement with The Inspections Group Inc. for the provision of safety code services for a potential additional 6 year period with annual renewal on April 30 of each year, or some other direction as given by Council at meeting time)*

- f) Offer to Purchase Lot 15, Block 2, Plan 4772 KS – the Summer Village obtained title to this property through the tax recovery process and listed this property for sale as is. The Summer Village has received several offers to purchase this property *(that the Summer Village accept the offer to purchase Lot 15, Block 2, Plan 4772 KS in the amount of _____ as noted, or some other direction as given by Council at meeting time)*

- g) 2021 Draft Operating and Capital budget – further to review and changes at our January Council meeting, an updated draft budget will be further reviewed at meeting time *(accept discussion for information and admin make amendments to draft budget as discussed)*

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call the office to arrange for same.

Wednesday, March 17th, 2021 commencing at 9:30 a.m.

h)

i)

j)

7. Financial a) Income and Expense Statement – February, 2021

8. Council Reports

- a) Mayor Benford
- b) Deputy Mayor Johnson
- c) Councillor Ward

9. Chief Administrator's Report

p 32
p 33-34
p 35-39

p 40

- a) Municipal Government Board appeal update
- b) Tax Recovery property update
- c) Development Officer's Report
- d) LILSA letter from Vice-Chair Candis Scott
- e) Farm Safety Centre – February 17th, 2021 letter
- f) Disaster Recovery Funds – 10% of costs now to be borne by municipality
- g) 2020 Financial Audit work
- h) 2021 Grant Funding Allocations – after February Provincial budget passed
- i)

10. Information and Correspondence

p 41

p 42-43

- a) Government of Alberta Statement of Direct Deposit:
-February 2nd, 2021 in the amount of \$292.00 for February FCSS
- b) Placement of Seasonal Dock – adjacent to Lot P for property owner M & A Heidt

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- p44-49 c) Community Peace Officer Report for November,
December and January
- p50-51 d) AUMA Vice President Villages West Angela Duncan
February 22nd, 2021 email update from the Board
- p52-55 e) Fortis Alberta – February 1st, 2021 revised letter on
approved 2021 rates
- p56-107 f) Municipal District of Spirit River No. 133 – January 27th,
2021 letter to the Premier on the handling of the COVID-
19 restrictions
- g)

11. Closed Meeting Session (n/a)

12. Next meeting:

13. Adjournment

Upcoming Meetings:

- March 17th, 2021 Regular Council
- April 21st, 2021 Regular Council
- June 5th, 2021 SVLSACE
- June 12th, 2021 Nomination Day
- June 16th, 2021 Regular Council
- July 10th, 2021 Election Day
- July 21st, 2021 Regular Council

**SUMMER VILLAGE OF SOUTH VIEW
REGULAR COUNCIL MEETING MINUTES
WEDNESDAY, JANUARY 20, 2021
AT THE ONOWAY CIVIC CENTRE**

(DUE TO COVID RESTRICTIONS THE PUBLIC MAY PARTICIPATE VIA TELECONFERENCE)

PRESENT: Council: Mayor Sandi Benford
Deputy Mayor Brian Johnson
Councillor Garth Ward

Administration: Wendy Wildman, Chief Administrative Officer (CAO)
Heather Luhtala, Assistant CAO (Via Teleconference)

Appointments: None

Public at Large: None

	MOTION #	
1.	CALL TO ORDER	Mayor Benford called the meeting to order at 9:31 a.m.
2.	AGENDA 1-21	MOVED by Councillor Ward that the January 20, 2021 Agenda be approved as presented. CARRIED
3.	MINUTES 2-22	MOVED by Deputy Mayor Johnson that the November 18, 2020 Regular Council Meeting Minutes be approved as presented. CARRIED
4.	APPOINTMENTS	n/a
5.	BYLAWS	n/a
6.	BUSINESS 3-21	MOVED by Mayor Benford that the Council of the Summer Village of South View support the 2021 Census and encourage all residents to complete their census questionnaire online at www.census.gc.ca . to ensure accurate and complete census data which support programs and services that benefit our community including grant funding AND THAT this information be advertised in the May 2021 newsletter and put on the Summer Village's website. CARRIED



SUMMER VILLAGE OF SOUTH VIEW
REGULAR COUNCIL MEETING MINUTES
WEDNESDAY, JANUARY 20, 2021
AT THE ONOWAY CIVIC CENTRE

(DUE TO COVID RESTRICTIONS THE PUBLIC MAY PARTICIPATE VIA TELECONFERENCE)

4-21	<p>MOVED by Councillor Ward that Council authorize the Summer Village of South View to participate in a 2021 Alberta Community Partnership application, under the Intermunicipal Collaboration (IC) – Explore and Opportunity Stream, to study the potential for regionalization of shared and common services among the partner members, with the Summer Village of Val Quentin acting as the Managing Partner.</p> <p style="text-align: right;">CARRIED</p>
5-21	<p>MOVED by Councillor Ward (that Council authorizes the Summer Village of South View to participate in a 2021 Alberta Community Partnership application, under the Municipal Restructuring (MR) – Restructuring Study Stream, to establish a process to facilitate the prospective amalgamation of regional summer villages, with the Summer Village of Sunset Point acting as the Managing Partner.</p> <p style="text-align: right;">CARRIED</p>
6-21	<p>MOVED by Councillor Ward that all of Council be authorized to attend and participate in the meetings with respect to the partnership initiative for the study for the potential regionalization of shared and common services and the study to establish a process to facilitate the prospective amalgamation of regional summer villages with Deputy Mayor Johnson being the lead elected for the Summer Village of South View.</p> <p style="text-align: right;">CARRIED</p>
7-21	<p>MOVED by Councillor Ward that Council appoint Dwight Moskalyk as Returning Officer and Diane Wannamaker as Substitute Returning Officer for the 2021 Municipal Election for the Summer Village of South View.</p> <p style="text-align: right;">CARRIED</p>
8-21	<p>MOVED by Deputy Mayor Johnson that the Summer Village of South View plan its 2021 nomination day and election day (including advance vote) along with its nomination day and voting day locations in conjunction with other Summer Villages if appropriate, suggested election dates being June 12, 2021 for Nomination Day and July 10, 2021 for Election Day (dates/times/locations are to come back to a future Council meeting for finalization).</p> <p style="text-align: right;">CARRIED</p>

SUMMER VILLAGE OF SOUTH VEW
REGULAR COUNCIL MEETING MINUTES
WEDNESDAY, JANUARY 20, 2021
AT THE ONOWAY CIVIC CENTRE

(DUE TO COVID RESTRICTIONS THE PUBLIC MAY PARTICIPATE VIA TELECONFERENCE)

		<p>-Nov. 24 in the amount of \$53,115.00 for MSI and MSP funding and \$292.00 for December FCSS funding</p> <p>-Dec. 24 in the amount of \$296.00 for January FCSS funding</p> <p>b) Alberta Municipal Affairs Minister Tracy Allard – Nov. 19 email on being approved under the Municipal Stimulus Funding in the amount of \$12,964.00 for our playground upgrade project</p> <p>c) Alberta Municipal Affairs Minister Tracy Allard – undated letter received December 10th, 2020 on Ministerial Order for the Summer Village Emergency Management group (removing Castle Island)</p> <p>d) Community Peace Officer Report for October 2020</p> <p>e) Town of Onoway – November 10th, 2020 Organizational Meeting Results</p> <p style="text-align: right;">CARRIED</p>
11.	CLOSED MEETING	n/a
12.	NEXT MEETINGS	The next Regular Council meeting is scheduled for Wednesday, March 17, 2021 at 9:30 a.m. (in-person attendance by Council and Administration only, public attendance via teleconference).
13.	ADJOURNMENT	The meeting adjourned at 12:12 p.m.

Mayor, Sandi Benford

Chief Administrative Officer, Wendy Wildman

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cao@onoway.ca

NOTE EMAIL CONTACT INFORMATION HAS CHANGED TO: cao@onoway.ca

This email is intended only for the use of the party to which it is addressed and for the intended purpose. This email contains information that is privileged, confidential, and/or protected by law and is to be held in the strictest confidence. If you are not the intended recipient you are hereby notified that any dissemination, copying, or distribution of this email or its contents is strictly prohibited. If you have received this message in error, please notify us immediately by replying to the message and deleting it from your computer.

From: administration@wildwillowenterprises.com <administration@wildwillowenterprise.com>

Sent: February 5, 2021 5:09 PM

To: Wendy Wildman <cao@onoway.ca>

Subject: FWD: Meeting on February 17, 2021

FYI

Heather Luhtala,

Asst. CAO

[S.V. of South View \(Sign Up for South View Connect Today!\)](#)

[S.V. of Silver Sands \(Sign Up for Silver Sands Connect Today!\)](#)

[S.V. of Yellowstone \(Sign Up for Yellowstone Connect Today!\)](#)

Phone: 587-873-5765

Fax: 780-967-0431

Website: www.wildwillowenterprises.com

Email: administration@wildwillowenterprises.com

----- Original Message -----

Subject: Meeting on February 17, 2021

From: "James Woslyng" [REDACTED]

Date: 2/5/21 5:04 pm

To: "Heather Luhtala" <administration@wildwillowenterprises.com>

Sorry for the late submission as I had the wrong email address. Please accept this email now.

I would like the village administration to remove the caveat on my property at 42 Hillside Street, Village of Southview and reverse all the charges, penalties and interest from my property taxes.

There were omissions on the development permit, making the conditions on the permit unenforceable.

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Also, the contravention order I was issued must contain information as to how it can be appealed to the subdivision and appeal board, NOT council, making the order invalid. Also, I completed my building permit before the March deadline for its completion, with no deficiencies. There was no reason for the administration to tell the council that I had not completed my building permit on time and then have council approve administration placing the caveat on my property.

If the administration is not willing to do this, then I am asking to be placed on the agenda for the meeting on February 17, 2021, to discuss it with them, otherwise I will have no other choice but to commence legal action.

Please advise as soon as possible. Thank you.

Sincerely

Jim Woslyng

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Proposed
New

BYLAW NO. 223-2021

**Municipal Government Act RSA 2000 Chapter M-26
Part 11 Assessment Review Boards**

**BEING A BYLAW OF THE SUMMER VILLAGE OF SOUTH VIEW IN THE
PROVINCE OF ALBERTA FOR THE PURPOSE OF ESTABLISHING ONE OR MORE
ASSESSMENT REVIEW BOARDS AND THE APPOINTMENT OF AN
ASSESSMENT REVIEW BOARD CLERK**

WHEREAS Section 454 of the Municipal Government Act requires Council to establish by bylaw a Local Assessment Review Board and a Composite Assessment Review Board; and

WHEREAS Section 456 of the Municipal Government Act requires Council to appoint a designated officer to act as the Clerk of the Assessment Review Boards having jurisdiction in the Summer Village of South View;

NOW THEREFORE, the Council for the Summer Village of South View, in the Province of Alberta, duly assembled enacts as follows:

Definitions

1. In this Bylaw, unless the context otherwise requires, the following definitions apply;
 - a) "Assessment Review Boards" (ARB) means either the Local Assessment Review Board (LARB) or the Composite Assessment Review Board (CARB);
 - b) "Assessment Clerk" means an individual appointed pursuant to Section 456 of the Municipal Government Act who is accredited by the Municipal Government Board to act as the Clerk of Assessment Review Boards for the Summer Village of South View;
 - c) "CRASC" means Capital Region Assessment Services Commission contracted by the Summer Village of South View to provide a full ARB administration services;
 - d) "Composite Assessment Review Board" (CARB) means a board established pursuant to Section 454 of the Municipal Government Act to hear and make decisions on complaints referred to in Section 460.1 (2) of the Municipal Government Act;
 - e) "Council" means the duly elected Council of the Summer Village of South View;
 - f) "Local Assessment Review Board" (LARB) means a board established pursuant to Section 454 of the Municipal Government Act to hear and make decisions on complaints referred to in Section 460.1 (1) of the Municipal Government Act;
 - g) "Summer Village" means the Summer Village of South View;

BYLAW NO. 223-2021

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Municipal Government Act RSA 2000 Chapter M-26

Part 11 Assessment Review Boards

- h) "Municipal Government Act" means the Municipal Government Act, RSA 2000, c M-26; and
- i) "Panelist" means an individual who is accredited by the Alberta Municipal Government Board to hear Assessment Complaints and who will be appointed to the Assessment Review Boards.

Establishment of Boards

- 2. Council hereby establishes the following boards:
 - a) Local Assessment Review Board; and
 - b) Composite Assessment Review Board

Duties

- 3. The Assessment Review Boards shall carry out all duties and responsibilities as set out in the Municipal Government Act and its regulations.

Appointments of Board Members, Chair and Assessment Clerk

- 4. Annually Council will appoint the list of Panelists, the names of the Chair of the LARB and CARB and the name of the Assessment Clerk provided to the Summer Village Council by CRASC.
- 5. All Panelists and Assessment Clerk serve at the pleasure of Council and may be removed by resolution of Council where, in the opinion of Council, removal is warranted.

Fees and Expenses

- 6. Compensation payable to CRASC for its performance including Annual fees, Hearing fees, Panelist fees and Assessment Clerk fees will be outlined in a Memorandum of Agreement between CRASC and the Summer Village.

Filing a Complaint

- 7. Upon receipt of an assessment complaint, the Summer Village shall provide to CRASC a completed Assessment Review Board Complaint form and supporting documentation in a timely manner.
- 8. A complaint must be accompanied by the appropriate fee as established by resolution of Council.

Rescind Bylaw

THAT Bylaw 209-2019, is hereby rescinded with the passing of this bylaw.

Effective Date

THAT this Bylaw shall come into force and effective on the date of the third and final reading.

A handwritten mark, possibly a signature or initials, enclosed within a hand-drawn circle. The mark is blue and appears to be the number '4' or a similar symbol.

BYLAW NO. 223-2021

**Municipal Government Act RSA 2000 Chapter M-26
Part 11 Assessment Review Boards**

Read a first time on this 17th day of March, 2021.

Read a second time on this 17th day of March, 2021.

Unanimous Consent to proceed to third reading on this 17th day of March, 2021.

Read a third and final time on this 17th day of March, 2021.

Signed this 17th day of March, 2021.

Mayor, Sandi Benford

Chief Administrative Officer, Wendy Wildman



Existing

BYLAW NO. 209-2019

**Municipal Government Act RSA 2000 Chapter M-26
Part 11 Assessment Review Boards**

**BEING A BYLAW OF THE SUMMER VILLAGE OF SOUTH VIEW IN THE
PROVINCE OF ALBERTA FOR THE PURPOSE OF ESTABLISHING ONE OR MORE
ASSESSMENT REVIEW BOARDS AND THE APPOINTMENT OF AN
ASSESSMENT REVIEW BOARD CLERK**

WHEREAS Section 454 of the Municipal Government Act requires Council to establish by bylaw a Local Assessment Review Board and a Composite Assessment Review Board; and

WHEREAS Section 456 of the Municipal Government Act requires Council to appoint a designated officer to act as the Clerk of the Assessment Review Boards having jurisdiction in the Summer Village of South View;

NOW THEREFORE, the Council for the Summer Village of South View, in the Province of Alberta, duly assembled enacts as follows:

Definitions

1. In this Bylaw, unless the context otherwise requires, the following definitions apply;
 - a) "Assessment Review Boards" (ARB) means either the Local Assessment Review Board (LARB) or the Composite Assessment Review Board (CARB);
 - b) "Assessment Clerk" means an individual appointed pursuant to Section 456 of the Municipal Government Act who is accredited by the Municipal Government Board to act as the Clerk of Assessment Review Boards for the Summer Village of South View;
 - c) "County" means Lac Ste. Anne County contracted by the Summer Village of South View to provide a full ARB administration services;
 - d) "Composite Assessment Review Board" (CARB) means a board established pursuant to Section 454 of the Municipal Government Act to hear and make decisions on complaints referred to in Section 460.1 (2) of the Municipal Government Act;
 - e) "Council" means the duly elected Council of the Summer Village of South View;
 - f) "Local Assessment Review Board" (LARB) means a board established pursuant to Section 454 of the Municipal Government Act to hear and make decisions on complaints referred to in Section 460.1 (1) of the Municipal Government Act;
 - g) "Summer Village" means the Summer Village of South View;
 - h) "Municipal Government Act" means the Municipal Government Act, RSA 2000, c M-26; and

BYLAW NO. 209-2019

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Municipal Government Act RSA 2000 Chapter M-26

Part 11 Assessment Review Boards

- i) "Panelist" means an individual who is accredited by the Alberta Municipal Government Board to hear Assessment Complaints and who will be appointed to the Assessment Review Boards.

Establishment of Boards

2. Council hereby establishes the following boards:
- a) Local Assessment Review Board; and
 - b) Composite Assessment Review Board

Duties

3. The Assessment Review Boards shall carry out all duties and responsibilities as set out in the Municipal Government Act and its regulations.

Appointments of Board Members, Chair and Assessment Clerk

4. Annually Council will appoint the list of Panelists, the names of the Chair of the LARB and CARB and the name of the Assessment Clerk provided to the Summer Village Council by the County.
5. All Panelists and Assessment Clerk serve at the pleasure of Council and may be removed by resolution of Council where, in the opinion of Council, removal is warranted.

Fees and Expenses

6. Compensation payable to the County for its performance including Annual fees, Hearing fees, Panelist fees and Assessment Clerk fees will be outlined in a Memorandum of Agreement between the County and the Summer Village.

Filing a Complaint

7. Upon receipt of an assessment complaint, the Summer Village shall provide to the County a completed Assessment Review Board Complaint form and supporting documentation in a timely manner.
8. A complaint must be accompanied by the appropriate fee as established by resolution of Council.

Rescind Bylaw



BYLAW NO. 209-2019

**Municipal Government Act RSA 2000 Chapter M-26
Part 11 Assessment Review Boards**

THAT Bylaw 166, a Bylaw of the Summer Village of South View to Establish one or more Assessment Review Boards is hereby rescinded with the passing of this bylaw.

Effective Date

THAT this Bylaw shall come into force and effective on the date of the third and final reading.

Read a first time on this 19th day of June, 2019.

Read a second time on this 19th day of June, 2019.

Unanimous Consent to proceed to third reading on this 19th day of June, 2019.

Read a third and final time on this 19th day of June, 2019.

Signed this 19th day of June, 2019.

Mayor, Sandi Benford

Chief Administrative Officer, Wendy Wildman



Proposed
New

Municipal Government Act RSA 2000 Chapter M-26
Section 210, Designated Officer
Section 456, Appoint Assessment Review Board Clerk

**A BYLAW OF THE MUNICIPALITY OF SOUTH VIEW, IN THE PROVINCE OF ALBERTA,
TO ESTABLISH THE POSITION OF DESIGNATED OFFICER**

WHEREAS, pursuant to the provisions of section 210 of the *Municipal Government Act*, the Council may pass a bylaw to establish one or more positions to carry out the powers, duties, and functions of a designated officer.

AND WHEREAS, pursuant to section 456 of the *Municipal Government Act*, the council of a municipality must appoint a designated officer to act as the clerk of the assessment review boards having jurisdiction in the municipality.

NOW THEREFORE, the Council of the Summer Village of South View, in the Province of Alberta, duly assembled, enacts as follows:

1. The Assessment Review Board Clerk is hereby established as a Designated Officer.
2. The Assessment Review Board Clerk is the designated officer for the purpose of the following sections of the *Municipal Government Act*:
 - i) section 456(1) – Duties of the Clerk of the Assessment Review Board
 - ii) section 461 & 462 – Assessment Complaints
 - iii) section 469(1) – Notice of Decision of the Assessment Review Board
 - iv) section 483 – Decision Admissible on Appeal
3. That as the Summer Village has entered into an agreement with Capital Region Assessment Services Commission for the provision of Assessment Review Board services within the Summer Village, Richard Barham be appointed Assessment Review Board Clerk for the Summer Village of South View.
4. That this bylaw is effective upon the date of its third and final reading.
5. That bylaw 210-2019 be rescinded.

THAT this Bylaw shall come into force and effective on the date of the third and final reading.

Read a first time on this 17th day of March, 2021.

Read a second time on this 17th day of March, 2021.

Unanimous Consent to proceed to third reading on this 17th day of March, 2021.

Read a third and final time on this 17th day of March, 2021.

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**Municipal Government Act RSA 2000 Chapter M-26
Section 210, Designated Officer
Section 456, Appoint Assessment Review Board Clerk**

Signed this 17th day of March, 2021.

Mayor, Sandi Benford

Chief Administrative Officer, Wendy Wildman

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Existing

Municipal Government Act RSA 2000 Chapter M-26
Section 210, Designated Officer
Section 456, Appoint Assessment Review Board Clerk

**A BYLAW OF THE MUNICIPALITY OF SOUTH VIEW, IN THE PROVINCE OF ALBERTA,
TO ESTABLISH THE POSITION OF DESIGNATED OFFICER**

WHEREAS, pursuant to the provisions of section 210 of the *Municipal Government Act*, the Council may pass a bylaw to establish one or more positions to carry out the powers, duties, and functions of a designated officer.

AND WHEREAS, pursuant to section 456 of the *Municipal Government Act*, the council of a municipality must appoint a designated officer to act as the clerk of the assessment review boards having jurisdiction in the municipality.

NOW THEREFORE, the Council of the Summer Village of South View, in the Province of Alberta, duly assembled, enacts as follows:

1. The Assessment Review Board Clerk is the designated officer for the purpose of the following sections of the *Municipal Government Act*:
 - i) section 456(1) – Duties of the Clerk of the Assessment Review Board
 - ii) section 461 & 462 – Assessment Complaints
 - iii) section 469(1) – Notice of Decision of the Assessment Review Board
 - iv) section 483 – Decision Admissible on Appeal
2. That as the Summer Village has entered into an agreement with Lac Ste. Anne County for the provision of Assessment Review Board services within the Summer Village, Mike Primeau be appointed Assessment Review Board Clerk for the Summer Village of South View.
3. That this bylaw is effective upon the date of its third and final reading.
4. That bylaw 236 – Assessment Complaints Designated Officer - be rescinded.

THAT this Bylaw shall come into force and effective on the date of the third and final reading.

Read a first time on this 19th day of June, 2019.

Read a second time on this 19th day of June, 2019.

Unanimous Consent to proceed to third reading on this 19th day of June, 2019.

Read a third and final time on this 19th day of June, 2019.

Signed this 19th day of June, 2019.

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**Municipal Government Act RSA 2000 Chapter M-26
Section 210, Designated Officer
Section 456, Appoint Assessment Review Board Clerk**

Mayor, Sandi Benford

Chief Administrative Officer, Wendy Wildman

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Safety Codes Council

February 11, 2021

Victoria Message
QMP Manager
Summer Village of South View
P.O. Box 8
Alberta Beach AB T0E 0A0

Dear Victoria Message:

**RE: 2020 Annual Internal Review
Summer Village of South View - Accreditation No: M000305**

The Summer Village of South View 2020 Annual Internal Review (AIR) for the building, electrical, gas and plumbing disciplines has been approved. You can view the signed AIR document on your organization dashboard on Council Connect.

I would like to thank you for the thorough and comprehensive review and the effort put into completing the review.

Should you have any questions, please do not hesitate to call the Accreditation Department. We can be reached toll-free at 1-888-413-0099 or by email at accreditation@safetycodes.ab.ca.

Best wishes,

A handwritten signature in blue ink that reads "PJ Burrows".

Peter Burrows
Acting Administrator of Accreditation

JV

A handwritten number "17" in blue ink, enclosed within a hand-drawn blue circle.

2020

Annual Internal Review

Accredited Municipality

Summer Village of South View



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2020- Municipal Accreditation

Accreditation Information

Accreditation ID: M000305
Municipal Name: Summer Village of South View
Population Size: 67
Municipal Type: Summer Village
Accredited Disciplines: Building, Electrical, Gas, Plumbing
Application Disciplines: Building, Electrical, Gas, Plumbing

QMP Information

QMP	Disciplines Covered	QMP Approved Date	QMP Manager Name (First name , Last name)	QMP Manager Job Title
293	Gas, Building, Electrical, Plumbing	2019-09-20	Victoria Message	Admin Assistant

Operational Activity

Activity	Building	Electrical	Gas	Plumbing	PSDS	Total
Permits Issued	2	6	2	3	2	15
Permits Closed	2	3	3	1	2	11
Permits Open	4	5	2	3	0	14
Inspection Completed	2	4	3	1	2	12
Orders Issued	0	0	0	0	0	0
Orders Closed	0	0	0	0	0	0
Orders Outstanding	0	0	0	0	0	0
Variances Issued	0	0	0	0	0	0

QMP Administration

a.	Is an accredited agency under contract to provide safety codes services?	Yes
b.	Please provide the following verifications:	
i.	The list of active Designation of Powers in Council Connect is up-to-date.	Yes
ii.	SCO certifications are current and have not expired.	Yes
iii.	SCO training is current.	Yes
iv.	A registry of SCO training is maintained.	Yes
v.	Municipal staff and contractors have access to the approved QMP	Yes
vi.	Municipal staff and contractors have received training on the approved QMP.	Yes
vii.	All and any changes to the QMP have been approved by the Administrator prior to implementation.	Yes
viii.	All safety codes services files are managed under a formal records management program.	Yes
ix.	All safety codes services files closed by a contracted accredited agency are returned to the municipality	Yes

Accredited Agency Contract Information

Agency Name	B	EL	G	P	PS	Mun. %	Ag. %	Other
The Inspections Group	Yes	Yes	Yes	Yes	Yes	45	55	

Agency Monitoring and Oversight

a.	Does the accredited agency submit the Council levy on behalf of the municipality?	Yes
i.	The municipality is not in arrears in its remittance of the Council Levy.	Yes
b.	Please provide the following verifications	
i.	An agency monitoring and oversight program is in place.	Yes
ii.	Agency inspections services are delivered in accordance to the municipality's QMP.	Yes
iii.	Signed formal agency contracts are in place.	Yes
iv.	Agency contracts are current and up-to-date.	Yes



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v.	Agency contracts address the transition of safety codes services upon termination.	Yes
vi.	Closed agency safety codes services files are returned to the municipality.	Yes

Agency Satisfaction

Please rate the following statements in relation to the corporation's satisfaction with the safety codes services provided by their contracted agency or agencies.

		Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
a.	Overall satisfaction.		Yes		
b.	Delivery of permit services.		Yes		
c.	Delivery of inspection services.		Yes		
d.	Timeliness and responsiveness of service delivery.		Yes		
e.	Competency and knowledge of SCOs.		Yes		
f.	Actions taken to improve the delivery of safety codes services.		Yes		
g.	Actions taken to promote compliance to the Safety Codes Act, its regulations and the codes and standards in force in Alberta.		Yes		

Technical Service Delivery Standards File Review Instructions

- Complete a review of one (1) closed permit file in each of the disciplines covered by the accreditation (i.e. building, electrical, gas, and plumbing)
- Files closed in the fire discipline **do not have** to be reviewed.
- An organization accredited in all disciplines will complete a maximum of four (4) file reviews.
- If a permit file was not closed in a discipline in the year which the AIR applies, a file review **is not required**.

File Information

Discipline: Private Sewage	Permit Issue Date:	Permit Closure Date:
Issuing Organization:		
Permit Issuer:	DOP Number:	
Inspecting Organization:		
Inspecting SCO:	DOP Number:	
Discipline: Building	Permit Issue Date: 2020-04-22	Permit Closure Date: 2020-05-05
Issuing Organization: Summer Village of South View		
Permit Issuer: Steve Henderson	DOP Number: D6798	
Inspecting Organization: The Inspections Group		
Inspecting SCO: Steve Henderson	DOP Number: D6798	
Discipline: Gas	Permit Issue Date: 2019-11-18	Permit Closure Date: 2020-01-20
Issuing Organization: Summer Village of South View		
Permit Issuer: Jeri Mitchell	DOP Number: P8632	
Inspecting Organization: The Inspections Group		
Inspecting SCO: Scott Laviolette	DOP Number: D8679	
Discipline: Plumbing	Permit Issue Date: 2020-05-05	Permit Closure Date: 2020-07-16
Issuing Organization: Summer Village of South View		
Permit Issuer: Tarla DeGroot	DOP Number: P8604	
Inspecting Organization: The Inspections Group		
Inspecting SCO: Scott Laviolette	DOP Number: D8680	

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Discipline: Electrical

Permit Issue Date: 2020-06-15

Permit Closure Date: 2020-09-02

Issuing Organization: Summer Village of South View

Permit Issuer: Jill Kluthe

DOP Number: P1425

Inspecting Organization: The Inspections Group

Inspecting SCO: Dan Bridges

DOP Number: D9497

File Review

Building	a.	Construction Document Review	
		Was a construction document review required?	No
		If yes, Please verify the following	
	i.	Plans were reviewed as prescribed in the municipality's QMP.	
	ii.	Professional involvement occurred as required in the municipality's QMP.	
	iii.	Plans were reviewed and approved by an SCO with the proper certification.	
		Note: Seek the assistance of an SCO to answer questions i and ii if necessary.	
	b.	Permit Issuance	
		Please verify the following:	
	i.	The permit is compliant with the section 21 and 22 of the Permit Regulation	Yes
	ii.	The permit was approved and signed by a Permit Issuer with the proper designation.	Yes
	iii.	The permit was issued in compliance with the Permit Regulation and the approved QMP.	Yes
	iv.	The permit was monitored in compliance with section 20 or 25 of the Permit Regulation, whichever is applicable.	Yes
	c.	Orders	
	i.	Was an order issued?	No
	ii.	If yes, the order is registered with the Council.	
	d.	Variances	
	i.	Was a variance issued?	No
	ii.	If yes, the variance is registered with the Council.	
	e.	Inspections and File Closure	
		Please verify the following:	
	i.	Inspections completed within the prescribed time frame.	Yes
	ii.	The mandatory minimum number of inspections required by the municipality's QMP were completed	Yes
	iii.	The inspection reports describe the "work in place" at the time of inspection	Yes
	iv.	An SCO with the proper certification and designation completed the inspections.	Yes
	v.	The permit was not closed with an unsafe condition.	Yes
	vi.	Did the inspections identify deficiencies?	No
1.	Were the deficiencies resolved prior to permit closure?		
2.	Were the deficiencies an unsafe conditions?		
3.	Was a verification of compliance accepted?		
Electrical	a.	Construction Document Review	
		Was a construction document review required?	No
		If yes, Please verify the following	
	i.	Plans were reviewed as prescribed in the municipality's QMP.	
	ii.	Professional involvement occurred as required in the municipality's QMP.	
	iii.	Plans were reviewed and approved by an SCO with the proper certification.	
		Note: Seek the assistance of an SCO to answer questions i and ii if necessary.	
	b.	Permit Issuance	
		Please verify the following:	
	i.	The permit is compliant with the section 21 and 22 of the Permit Regulation	Yes
	ii.	The permit was approved and signed by a Permit Issuer with the proper designation.	Yes

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Electrical	iii.	The permit was issued in compliance with the Permit Regulation and the approved QMP.	Yes	
	iv.	The permit was monitored in compliance with section 20 or 25 of the Permit Regulation, whichever is applicable.	Yes	
	c. Orders			
	i.	Was an order issued?	No	
	ii.	If yes, the order is registered with the Council.		
	d. Variances			
	i.	Was a variance issued?	No	
	ii.	If yes, the variance is registered with the Council.		
	e. Inspections and File Closure			
	Please verify the following:			
	i.	Inspections completed within the prescribed time frame.	Yes	
	ii.	The mandatory minimum number of inspections required by the municipality's QMP were completed	Yes	
	iii.	The inspection reports describe the "work in place" at the time of inspection	Yes	
	iv.	An SCO with the proper certification and designation completed the inspections.	Yes	
	v.	The permit was not closed with an unsafe condition.	Yes	
	vi.	Did the inspections identify deficiencies?	No	
	1.	Were the deficiencies resolved prior to permit closure?		
	2.	Were the deficiencies an unsafe conditions?		
	3.	Was a verification of compliance accepted?		
	Gas	a. Construction Document Review		
			Was a construction document review required?	No
		If yes, Please verify the following		
		i.	Plans were reviewed as prescribed in the municipality's QMP.	
ii.		Professional involvement occurred as required in the municipality's QMP.		
iii.		Plans were reviewed and approved by an SCO with the proper certification.		
Note: Seek the assistance of an SCO to answer questions i and ii if necessary.				
b. Permit Issuance				
Please verify the following:				
i.		The permit is compliant with the section 21 and 22 of the Permit Regulation	Yes	
ii.		The permit was approved and signed by a Permit Issuer with the proper designation.	Yes	
iii.		The permit was issued in compliance with the Permit Regulation and the approved QMP.	Yes	
iv.		The permit was monitored in compliance with section 20 or 25 of the Permit Regulation, whichever is applicable.	Yes	
c. Orders				
i.		Was an order issued?	No	
ii.		If yes, the order is registered with the Council.		
d. Variances				
i.		Was a variance issued?	No	
ii.		If yes, the variance is registered with the Council.		
e. Inspections and File Closure				
Please verify the following:				
i.		Inspections completed within the prescribed time frame.	Yes	
ii.		The mandatory minimum number of inspections required by the municipality's QMP were completed	Yes	
iii.	The inspection reports describe the "work in place" at the time of inspection	Yes		
iv.	An SCO with the proper certification and designation completed the inspections.	Yes		
v.	The permit was not closed with an unsafe condition.	Yes		
vi.	Did the inspections identify deficiencies?	No		
1.	Were the deficiencies resolved prior to permit closure?			
2.	Were the deficiencies an unsafe conditions?			

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Gas	3. Was a verification of compliance accepted?	
Plumbing	a. Construction Document Review	
	Was a construction document review required?	No
	If yes, Please verify the following	
	i. Plans were reviewed as prescribed in the municipality's QMP.	
	ii. Professional involvement occurred as required in the municipality's QMP.	
	iii. Plans were reviewed and approved by an SCO with the proper certification.	
	Note: Seek the assistance of an SCO to answer questions i and ii if necessary.	
	b. Permit Issuance	
	Please verify the following:	
	i. The permit is compliant with the section 21 and 22 of the Permit Regulation	Yes
	ii. The permit was approved and signed by a Permit Issuer with the proper designation.	Yes
	iii. The permit was issued in compliance with the Permit Regulation and the approved QMP.	Yes
	iv. The permit was monitored in compliance with section 20 or 25 of the Permit Regulation, whichever is applicable.	Yes
	c. Orders	
	i. Was an order issued?	No
	ii. If yes, the order is registered with the Council.	
	d. Variances	
	i. Was a variance issued?	No
	ii. If yes, the variance is registered with the Council.	
	e. Inspections and File Closure	
	Please verify the following:	
	i. Inspections completed within the prescribed time frame.	Yes
	ii. The mandatory minimum number of inspections required by the municipality's QMP were completed	Yes
	iii. The inspection reports describe the "work in place" at the time of inspection	Yes
	iv. An SCO with the proper certification and designation completed the inspections.	Yes
	v. The permit was not closed with an unsafe condition.	Yes
	vi. Did the inspections identify deficiencies?	No
1. Were the deficiencies resolved prior to permit closure?		
2. Were the deficiencies an unsafe conditions?		
3. Was a verification of compliance accepted?		
Private Sewage	a. Construction Document Review	
	Was a construction document review required?	
	If yes, Please verify the following	
	i. Plans were reviewed as prescribed in the municipality's QMP.	
	ii. Professional involvement occurred as required in the municipality's QMP.	
	iii. Plans were reviewed and approved by an SCO with the proper certification.	
	Note: Seek the assistance of an SCO to answer questions i and ii if necessary.	
	b. Permit Issuance	
	Please verify the following:	
	i. The permit is compliant with the section 21 and 22 of the Permit Regulation	
	ii. The permit was approved and signed by a Permit Issuer with the proper designation.	
	iii. The permit was issued in compliance with the Permit Regulation and the approved QMP.	
	iv. The permit was monitored in compliance with section 20 or 25 of the Permit Regulation, whichever is applicable.	
	c. Orders	
	i. Was an order issued?	
	ii. If yes, the order is registered with the Council.	
	d. Variances	

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Private Sewage	i.	Was a variance issued?	
	ii.	If yes, the variance is registered with the Council.	
	e.	Inspections and File Closure	
		Please verify the following:	
	i.	Inspections completed within the prescribed time frame.	
	ii.	The mandatory minimum number of inspections required by the municipality's QMP were completed	
	iii.	The inspection reports describe the "work in place" at the time of inspection	
	iv.	An SCO with the proper certification and designation completed the inspections.	
	v.	The permit was not closed with an unsafe condition.	
	vi.	Did the inspections identify deficiencies?	
	1.	Were the deficiencies resolved prior to permit closure?	
	2.	Were the deficiencies an unsafe conditions?	
	3.	Was a verification of compliance accepted?	

Annual Internal Review Findings

Use the results of the File Review and any other information to answer the following questions

1. Are there any notable issues with respect to the accreditation that was discovered through the completion of the Annual Internal Review?

There were no issues noted with respect to Accreditation.

2. Any other general comments, concerns or issues the municipality would like to raise with the Administrator and council in regards to its accreditation or operation of the safety codes system.

No significant area requiring improvements were noted however the Summer Village of South View strives to improve our Safety Codes processes and delivery program on an ongoing basis.

Municipal Acknowledgement and Signature

Signature: Victoria Message

Date: 2021-02-09

Job Title: QMP Manager

Note: This information is being collected for the purpose of administering and monitoring organizations accredited under the Safety Codes Act. The information collected will be managed in compliance with section 33,39 and 40 of the Freedom of Information and Protection of Privacy Act, section 63 of the Safety Codes Act, and in accordance with the policies, practices and procedures of the Safety Codes Council. Questions about the collection and use of this information can be directed to the Safety Codes Council at 780-413-0099, or toll-free at 1-888-413-0099.

For Safety Council Use Only

Administrator of Accreditation Review and Approval

Signature: *PJ Barrows*

Date: 2021-02-11

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From: Archie Grover <archie.r.grover@gmail.com> on behalf of archie.grover@crasc.ca
Sent: March 3, 2021 9:51 PM
To: aboffice@albertabeach.com; 'Dennis Evans'; kvickery@barrhead.ca; doyarzun@countybarrhead.ab.ca; cao@betulabeach.ca; burnsticklake@gmail.com; information@sofficepl.com; cao@cremona.ca; 'Alvin Allim'; 'Therese Kleeberger'; info@itaska.ca; ino@silverbeach.ca; info@sundancebeach.ca; 'Stacey Wagner'; cao@lakeview.ca; debbie.hackman@lamontcounty.ca; 'Christine Beveridge'; 'Gizele St. Jean'; cao@mayerthorpe.ca; 'Lana Spencer'; bancroftkim@hotmail.com; cao@onoway.ca; admin@parklandbeachsv.ca; cao@redwater.ca; cao@rosshaven.ca; bancroftkim@hotmail.com; 'Summer Village of Seba Beach'; mwoyen@sprucegrove.org; bploulouin@xplornet.com; admin@parklandbeachsv.ca; 'Jen Boleski'; cao@silverbeach.ca; cao@smolylake.ca; jboleski@stonyplain.com; cao@sundancebeach.ca; bancroftkim@homail.com; office@sunsetpoint.ca; bill@townofswanhills.com; vilnamayor@shaw.ca; waskenau@mesnt.ca; svwestcove@outlook.com; petersmyl@whitecoute.ca; d.evans@explornet.com; sylvvaroy@officepl.com; 'MGB Mail'; cao@sundancebeach.ca; bill@townofswanhills.com; cao@smokylake.ca; 'SV of Silver Beach Administrator'; mwoyen@sprucegrove.org; vilnamayor@shaw.ca; 'Village Of Waskatenau'; 'Summer Village of West Cove'; 'Peter Smyl'; 'Dennis Evans'; 'Sylvia Roy'; 'Barbara Williams'; 'Falon Fayant'
Cc: richard.barham@crasc.ca
Subject: 2021 ARB Officials.

Good evening to you all,

This email is to provide you with your list of ARB Officials for 2021. We only have 5 panelists this year due to the retirement of Judy Bennett. We do have some feelers out in hopes that we will be able to find a suitable candidate.

I have been having a problem with my computer so if you find a duplicate just ignore one of them, also if you received this information

before please excuse me for that. Better 2 then none.

We have some new ARB members listed here and if that is you please have your Council appoint by resolution the following as your ARB Officials for 2021.

If you have any questions or concerns with this request please do not hesitate to contact me.

Archie.

ARB Chairman – Raymond Ralph

Certified ARB Clerk – Richard Barham

Certified Panelists – Darlene Chartrand

Tina Groszko
Stewart Hennig
Richard Knowles
Raymond Ralph.

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Archie Grover, Manager
Capital Region Assessment Services Commission
11810 Kingsway Avenue NW
Edmonton AB T5G 0X5
Archie.Grover@crasc.ca
(780) 438-2052

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COUNTY'S ICF DEAL WITH THE TOWN OF MAYERTHORPE PROVES ELUSIVE

Town remains the sole outlier in the County's good-faith efforts to collaborate with its municipal neighbours.

Sangudo, Alberta, Thursday, February 25, 2021 – After two years of earnest efforts to find common ground with the Town of Mayerthorpe – and mere months away from the provincially-mandated deadline for such initiatives – a fundamental rift in fiscal policy threatens to derail the entire process. Simply put, the County finds the Town's arbitrary expectations of financial support unwarranted; unsustainable; irresponsible; and unnecessarily burdensome on the County and its ratepayers.

At risk is the County's final Intermunicipal Collaboration Framework, or ICF for short. ICFs are mandated by the Province as a way for neighbouring municipalities to share knowledge, combine resources and do more with less. All municipalities need to structure ICFs with their bordering neighbours, and the deadline for doing so is April 1, 2021.

Following 19 successful ICF outcomes with all other adjacent municipalities (17 completed and two pending), the sole outlier in the County's good-faith efforts to collaborate with its municipal neighbours is the Town of Mayerthorpe. It should also be noted that Mayerthorpe is the one and only municipality that has attached a financial stipulation to its ICF negotiations.

Ratepayers are advised to visit LSAC.ca/icf to get the facts on this consequential County matter and weigh in with insights of their own. The key points are as follows:

- Mayerthorpe is the County's only remaining municipal neighbour without an ICF at or near completion.
- To satisfy Mayerthorpe's conditions for the ICF, the County would have to pay considerably more for the Town's recreation facilities.
- Failure to enter into an ICF by April 1, 2021 may force the Town and County into binding arbitration, which generally results in a matter being split down the middle to appear equitable.
- Splitting the matter down the middle represents considerable financial gain for Mayerthorpe, and a stark loss to the County.
- The County's loss will mean less funding to more than 150 other local organizations, service reductions, a tax increase for County ratepayers, and a diminished capacity for the County to determine its own future.

It defies logic to suggest that the cost structure for Town facilities like the Aquatic Centre has increased several fold. This is the same swimming pool that existed last year and the year before. Regardless, it is wrong-headed for any municipality to think that the County should adjust its own tax rate to absorb that municipality's shortfalls.

"The Town expects us to increase OUR taxes during a time of financial hardship so that THEY can benefit from increased funding," stated Lac Ste. Anne County Reeve Joe Blakeman. "Such a complete abdication of responsibility is appalling, and underscores just how differently our two leadership teams view the present realities of Rural Alberta."

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MEDIA RELEASE: COUNTY'S ICF DEAL WITH THE TOWN OF MAYERTHORPE PROVES ELUSIVE
Town remains the sole outlier in the County's good-faith efforts to collaborate with its municipal neighbours.

The County continues to weather a perfect storm of continued economic downturn; provincial cost downloading and assessment model changes; uncollectable linear tax revenue; diminishing funding resources; and the financial impacts of COVID-19. As a result of these events, the County anticipates a total financial impact in excess of \$1,500,000 or approximately 5% of its operating budget.

County Council and administration have worked together to make difficult financial decisions in support of fiscal responsibility. These decisions include no changes to the County's salary structure, and a tax increase for 2021 as close to 0.0% as possible. In parallel to this lean and sustainable business model, County residents continue to provide hundreds of thousands of dollars in broad financial support to a spectrum of vital recreational, cultural and social programs and services throughout the region.

"In this time of unprecedented financial strain and austerity, the last thing we would do is further burden our ratepayers," shared Reeve Blakeman. "It is unfortunate that Mayerthorpe is experiencing viability difficulties, but when their solution is to shift its financial challenges onto the County, we're going to have a problem. This is just not right, and it will be to the detriment of everyone in the region...except perhaps Mayerthorpe in the short term."

"Transferring your financial burden onto your next-door neighbour is certainly not the spirit of the ICF," he continued. "From Council's perspective, Mayerthorpe has two options: accept the substantial financial funding provided to the Town and start to manage your affairs responsibly, or we say enough is enough and have a different conversation. If our administrations cannot see eye-to-eye on the fundamentals of sound governance, then perhaps it's time to talk about a single administration."

The Municipal Government Act allows for the amalgamation of two municipalities as a solution for creating long-term sustainable communities. Among other potential benefits, amalgamation could save money, provide more expertise, resolve intractable issues, reduce taxes, and give municipalities a stronger voice.

"If a municipality wants us to be their bank, then so be it," muses Reeve Blakeman. "But what does the bank do when you can't pay your mortgage? I think we all know the answer to this question."

Lac Ste. Anne County acknowledges the positive and participatory process it has experienced when working with the vast majority of its neighbours throughout the ICF process. Agreements are already in place, or close to completion, with all bordering municipalities – with the unfortunate exception of the Town of Mayerthorpe.

For more details on this evolving matter, please visit LSAC.ca/icf.

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Media Contact:
Joe Blakeman | Reeve
Lac Ste. Anne County

TEL 780.918.1916
jblakeman@LSAC.ca

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Mayerthorpe

TOWN OF MAYERTHORPE
P.O. Box 420
Mayerthorpe, Alberta
Canada T0E 1N0

PRESS RELEASE
COUNTY ABANDONS TALKS
ON CRITICAL ICF NEGOTIATIONS WITH TOWN

- ✓ Government of Alberta mandated process
- ✓ Town ratepayers bear the burden
- ✓ County's fundamental responsibility

Mayerthorpe, Alberta, February 26, 2021 – The Government of Alberta mandated Intermunicipal Collaboration Frameworks (ICFs) on October 26, 2017 for the purpose of fostering cooperation between neighboring municipalities. The key areas of focus are transportation, water/wastewater, solid waste, emergency services, recreation and any other services that benefit residents in more than one of the municipalities who are party to the ICF.

The legislation specifically mentions cost-sharing to ensure municipalities contribute adequately to facilities and services that benefit their residents, including those supplied by another municipality. Although not rooted in finances, out of necessity, these ICF negotiations must include discussions about the dollars and cents.

In addition, the legislation states that efficiencies must be sought through integrated strategic planning and delivery of services and that thoughtful stewardship of scarce resources be at the forefront of the conversations.

'I'm disappointed in this turn of events. The Town's ICF Committee members were determined to remain optimistic during often tense talks with the County. In an effort to foster a productive relationship with our County colleagues, we embraced the process, even though we knew it wasn't going to be easy.' – Mayor Janet Jabush

Users from around the region enjoy the services and facilities available in the Town of Mayerthorpe. The burden of funding these public services has long been disproportionately borne by the Town's ratepayers. Securing a more equitable arrangement was the goal of the Town's ICF Committee members, current Council, and previous Councils.

From the outset, the Town of Mayerthorpe has provided consistent, factual data to Lac Ste. Anne County in support of its position. Using modelling developed by Stantec and vetted by both the Alberta Urban Municipalities Association (AUMA) and the Rural Municipalities of Alberta (RMA), the Town has proposed that the County fairly contribute to the facilities and services their ratepayers enjoy in the Town of Mayerthorpe.

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ADMINISTRATION
TEL 780.786-2416
FAX 780.786-4590

FIRE DEPARTMENT
TEL 780.786-2422
FAX 780.786-2422

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SERVICE AGREEMENT AMENDMENT

This AMENDMENT made as of April 30, 2021 between:

THE INSPECTIONS GROUP INC (the "Agency")

and

SUMMER VILLAGE OF SOUTH VIEW (the "The Summer Village")

The Inspections Group Inc.
12010-111 Avenue
Edmonton AB T5G 0E6
Attention: Tim Roskey
Email: troskey@inspectionsgroup.com

Summer Village of South View
PO Box 8
Alberta Beach AB T0E 0A0
Attention: Wendy Wildman
Email: administration@wildwillowenterprises.com

Agency and Summer Village hereby agree as follows:

- A. The Agency and Summer Village are parties to the Service Agreement dated May 2, 2018 which sets out terms and conditions which they have agreed shall apply to the Agreement and any Amendment thereto between them.
- B. The Agency and Summer Village have agreed to amend the Service Agreement as described below.
 - i) Section 3 **TERMS OF AGREEMENT** will hereby be amended as follows;

This Amended Agreement shall be effective May 1, 2021 and will continue on a year by year automatic renewal April 30th of each year up to a maximum number of six (6) additional successive option one (1) Year Term renewals unless terminated by either party assigned hereto and terminated in accordance with the terms of the original Agreement dated May 1, 2018.

Executed by the Parties' duly authorized representative.

The Inspections Group Inc.

Summer Village of South View

Signed this 8 day of MARCH, 2021

Signed this ___ day of _____, 20___

(31)



Tim Roskey, Chief Executive Officer

Wendy Wildman, Chief Administrative Officer



To whom it may concern,

My name is Candis Scott, I am contacting you on behalf of the Lake Isle & Lac Ste. Anne Water Quality Management Society (LILSA). We have established a Blue Green Algae Committee that will be applying to the Land Stewardship Centre's Watershed Stewardship Grant for their 2021 call for applications.

Our draft plan at the moment is, rather than to start with a demonstration site which was proposed last year, to elevate education/knowledge sharing in the watershed first. Our project name is the Lake Water Quality Education Project. Our target audience is shoreline owners, backlot residents, councilors and agriculture producers which reside in or around Lake Isle and Lac Ste Anne. Lake quality is affected not only from lakefront properties but various actions occurring throughout the watershed. Our proposed first step is to release a survey in order to gain more insight on what landowners in the areas current and/or lack of knowledge is around lake health, along with what their main concerns are. The second step is to gather the survey content and cater an educational package to each that requests one, ultimately filling knowledge gaps. As a last step, we'd like to create a digital narrative that captures the story of the Lake Isle and Lac Ste. Anne watershed. Covering various topics such as riparian health, nutrient run-off, and blue-green algae while having residents and experts contribute to this educational video.

To that end, LILSA is asking for the Summer Village of Southview to provide in-kind support to the Lake Water Quality Education Project in several ways: outreach support in form of advertising/distributing our survey via social media, mailout, newsletter and website, contributing/distributing educational resources to residents, and if possible expert volunteer time towards the digital story.

Please let me know if you require more information for our in-kind contribution ask. Your support will not only help us be successful in the grant application but will also boost awareness not only of our small organization but yours as well!

Thank you for your time and consideration, I look forward to hearing your response.

Sincerely,

Candis Scott
Vice-Chair, LILSA
780-717-6201
candis1972@gmail.com

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265 East 400 South – Box 291 – Raymond – Alberta – T0K 2S0
Tel: 403 752-4585 – Fax: 403 752-3643 – Website: www.abfarmsafety.com

February 17, 2021

Summer Village of South View
PO Box 8
Alberta Beach, Alberta T0E 0A0

*Pol # 150W
in 2020*

RECEIVED
FEB-23-2021

Dear Sir or Madam,

I apologize in advance for the length of this correspondence, but the challenges and changes caused by COVID and other circumstances are many. Acknowledging the burden of budget deliberations and the fact that choices between good, better, and best can be difficult; a certain amount of detail and explanation are needed at this time.

From the beginning of the 2019-2020 school year in September 2019 until school classes in Alberta were suspended in mid-March 2020 - 40,662 rural children in 339 schools had already received our in-class farm safety presentations. Students in an additional 152 schools were booked for Safety Smarts delivery during the remaining months of the school year. A full 2019-2020 year-end report can be accessed on our website: abfarmsafety.com

In April 2020 we began working to add content to our website which would allow students to access interactive farm safety learning tools during the COVID disruption in school attendance. By the first week of May two of the game-based teaching activities typically used in-class had been adapted and made available on our website. Parent feedback has been very positive.

With the return of in-person program delivery uncertain, the following activities were completed between Apr - Oct 2020

- Hundreds of farm safety related still images gathered over time have been tagged, for improved access/use
- Video resources developed previously by the Centre have been reformatted to allow on-line, web-based access
- Re-formatted video resources have all been tagged, for improved access/use in adapted program delivery
- Safety Smarts materials, models, tools etc. have been gathered from regional instructors across the province
- Sorting and cleaning of models, displays and other in-class teaching materials gathered from regional instructors
- Adaptation of some existing personal experience safety videos to make them more virtual delivery friendly
- Gathering of an additional 18 personal experience safety videos – for use virtually and face to face
- Remake of the Welcome to the Farm video with both female and male youth narrators
- Completion of new K/Gr 1 book – for virtual use. Available in hardcopy when in-person delivery resumes
- Development of 65+ new age and topic specific activity sheets – for virtual and in-person use
- Adaptation of Safety Smarts presentations to make them accessible/usable virtually
- Launch of updated website to better support schools, families and organizations looking for farm safety materials
- Procurement of PPE in anticipation of new disease prevention protocols when in-person delivery resumes

We did not begin reaching out to schools in September 2020, as it seemed apparent that COVID had greatly complicated their day-to-day responsibilities in the new 2020-2021 school year. School contacts began in October as we inquired about their interest in continued farm safety learning. Without exception schools suggested we wait until 2021 to attempt any sort of outreach again.

Research into virtual delivery possibilities began in October 2020, with the purchasing of video conferencing equipment for November trials. Extensive training of delivery contractors, for potential video conferenced Safety Smarts delivery began in December 2020 and continued into January 2021.

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In late January rural schools were made aware of our intention to attempt virtual delivery of adapted Safety Smarts presentations. Actual Zoom delivery began on February 1, 2021 and by the mid-month writing of this letter 110 rural schools have already set up delivery schedules, and individual classes in 15 schools have received farm safety presentations via Zoom. Over the coming weeks we will get a better idea how virtual engagement is working and what improvements are needed to make the most of the precious classroom time invested by rural schools. We anxiously await the opportunity to again meet with students in-person, but until that is possible, we will continue to engage with individual classes of rural students virtually.

A few other items of note:

In October of 2020, the Farm Safety Centre was informed by GOA representatives that ALL their involvement in and support of farm safety learning and extension would end in December 2020. Their departmental staff were laid off and online resources were withdrawn at the end of the year. A portion of the printed materials and learning models they had on-hand were sent to the centre. Visit the Resources area of our website to view lists of farm safety reinforcing materials available.

In December of 2020, an updated website was launched by the Farm Safety Centre. It is extremely straightforward to navigate and has many new resources available for schools, families, and organizations. Portions are still under constructions, but I would encourage you to spend a few minutes reviewing what is available. We would be happy to promote any of your upcoming happenings in our News & Events section, or on our social media platforms.

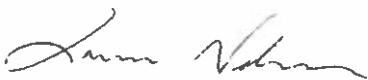
In January of 2021, the organization began a strategic assessment of our strengths, weaknesses, opportunities, and risks/threats. We anticipate some findings by mid-April. Results will be available on our website in "About Us" section. Since inception in the early 1990's the FSC has had eye-to-eye learning moments with more than 780,000 rural individuals. What will and should the next 20+ years include, to ensure we continue serving rural Albertans in a meaningful way? This is THE question....

In March of 2021, I will be retiring as Executive Director after 20 wonderful years. I very much appreciate the enriching interactions I have had with exceptional individuals across the province. Jordan Jensen will be stepping in as the new Executive Director. **He can be reached at j.jensen@abfarmsafety.com or 403 593-8960 (cell) or 403 752-4585 (office).**

And lastly, the Farm Safety Centre is hopeful that in 2021 your organization will consider supporting our extension efforts. **Within the financial realities of an economically challenged province, any financial support supplied in 2021 would be greatly appreciated.**

Exactly how farm safety learning will evolve moving forward, is uncertain at this time but our organization is doing all it can to prepare itself to continue helping things go right for farmers and their families across our amazing province.

Sincerely,



Laura Nelson
Outgoing Executive Director
Farm Safety Centre

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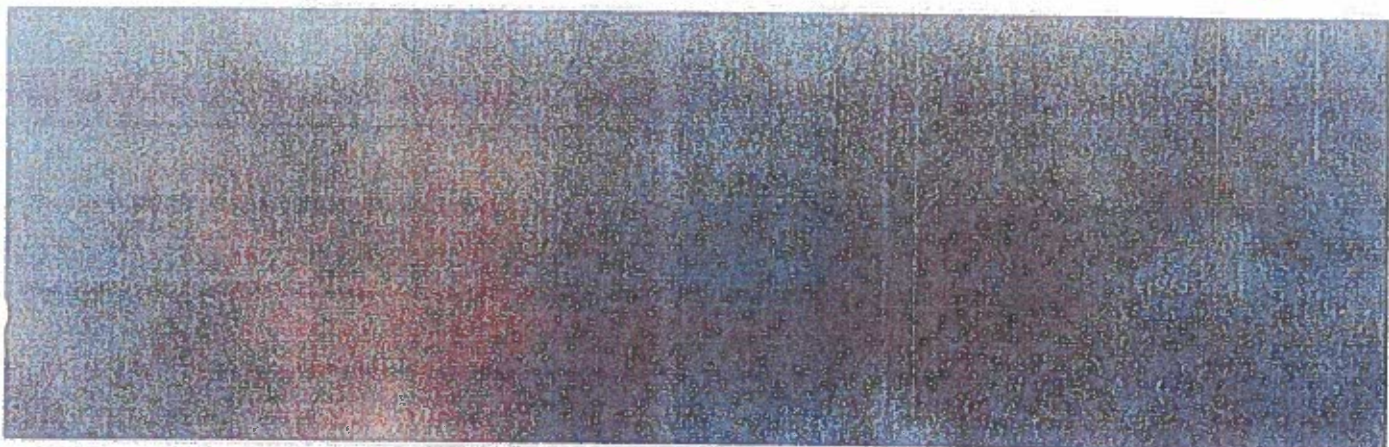
'Probably overdue': Alberta turns to municipalities for portion of disaster recovery funds

This year's budget includes \$2.5 billion in contingency amounts for disasters and emergencies

Jeff Labine

Mar 01, 2021 • 1 day ago • 2 minute read • 41 Comments

35





Residents of Fort McMurray flee southbound on Highway 63 in May 2016. PHOTO BY ROBERT MURRAY /Postmedia, file

Municipalities and Metis settlements as of April 1 will be on the hook for 10 per cent of damages caused by natural disasters like floods and wildfires, says Alberta's municipal affairs minister.

The inclusion of a new disaster recovery program cost-sharing arrangement between municipalities, Metis settlements and all private sector applicants for all eligible costs was hinted at in Thursday's budget but no details were provided. This week the minister will be sending formal notices out about the changes.



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The province is also bringing in a funding cap of \$500,000 and a one-time assistance limit per property, though it won't be applied retroactively.

Municipal Affairs Minister Ric McIver, who took on the portfolio in January, said the change brings Alberta in line with other provinces.

"We're normalizing our coverage to what other provinces do now," he said. "It's something that's probably overdue. Budget time is when you think about these things that's why we're doing it. We'll still be tied for the best coverage in Canada. We also said ... our objective was to bring government programs and expenditures more in line with other provinces and this policy change does that."

STORY CONTINUES BELOW

37

According to the province, six of the top 10 costliest Canadian natural disasters for insurance payouts happened in Alberta, including the 2016 Fort McMurray wildfires, the 2013 Calgary floods and the Slave Lake fire in 2011.

A report by auditor general Doug Wylie last fall found disaster costs increased by over 2,500 per cent to approximately \$9 billion with the government incurring an estimated \$2.3 billion from 2010 to 2016. The federal government will reimburse Alberta for about \$1.4 billion of the \$2.2 billion in disaster expenses

This year's budget includes \$2.5 billion in contingency amounts for disasters and emergencies.

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Municipal Affairs Minister Ric McIvor said the changes to the cost-sharing agreement with municipalities for disaster recovery brings Alberta in line with other provinces. Postmedia file

The province also made changes to the Emergency Evacuation Payments (EEP). The new criteria for payments include requiring a mandatory evacuation order, the evacuation exceeding seven days, and if the event is uninsurable. Adults will get \$625 plus accommodations while dependents under the age of 18 will get \$300.

Provincial documents provided to Postmedia show Alberta did not have a formalized and consistent approach for how to handle disaster payments as it was done on a case-by-case basis.

McIver said he hopes these changes also spark a conversation about where municipalities are building.

“A lot of the disaster uninsurable losses that government has been paying for are in areas that are in floodways or flood zones,” he said. “My experience, so far, in discussing this with municipal leaders is they are ready for that discussion about new policies about what’s allowed to be built in flood-prone areas.”

When asked about giving municipalities more time to adjust to the change, McIver said no one knows when a disaster will hit.

“I’m more focused on looking at the policies when floods or fires do happen and work together to make sure that the total (number) of fires and floods is lower,” he said. “I think that’s the win for municipalities, I think that’s the win for government.”

Monday also marks the first day of Alberta’s wildfire season. There were 704 wildfires in 2020, the fewest reported in years.

jlabine@postmedia.com

twitter.com/jefflabine



39

South View

2021 MSI ALLOCATION - February 2021 Report from Municipal Affairs

Year	Description	Amount
2021	MSI-Capital & BMTG Allocation	\$ 82,079
2021	MSI-Operating Allocation	\$ 5,892
2021	Gas Tax Fund Allocation	\$ 9,012
2021	Total	\$ 96,983

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VENDOR		VENDOR ID		DATE ISSUED	
SUMMER VILLAGE OF SOUTH VIEW		0070000539		02-Feb-2021	
DEPOSITED AT BANK:		DEPOSIT NO	DATE	AMOUNT	
BRANCH:	ACCOUNT:	2000563042	02-Feb-2021	\$292.00	
				TOTAL	
				\$292.00	

DEPOSIT NO: 2000563042		DEPOSIT DATE: 02-Feb-2021		
VOUCHER	DESCRIPTION/REASON FOR PAYMENT	INVOICE/CREDIT NOTE	AMOUNT	SUB-TOTAL
1900684705	FCSS FEBRUARY PAYMENT	095261319FCS0221	\$292.00	
	Total Payment From C&SS For Inquiries Call 825 468 4314			\$292.00
			DEPOSIT TOTAL	
			\$292.00	

RECEIVED
FEB 09 2021

JCA6159234-0006435-03218-0001-0001-00-

JCA6159234 E D

03218

SUMMER VILLAGE OF SOUTH VIEW
PO BOX 8
ALBERTA BEACH, AB
T0E 0A0

41





Box 8, Alberta Beach, Alberta T0E 0A0
Phone: 587-873-5765 Fax: 780-967-0431
Email: administration@wildwillowenterprises.com

March 3, 2021

Mark & Amanda Heidt


Dear Mr. & Mrs. Heidt:

Re: Placement of a Seasonal Dock adjacent to Municipal Reserve Lands located at Lot P Block 1 Plan 2647KS within the Summer Village of South View (the "Lands")

This letter is in response to your request, as the "Upland Landowner", for the placement of a Seasonal Dock adjacent to the noted "Lands" as required by Alberta Public Lands.

The Council for the Summer Village of South View (Motion #91-20) herein provides this letter of no objection to your application for a Temporary Field Authorization (TFA) to allow for the installation of a Seasonal Dock adjacent to the noted "Lands".

Note: This letter is in no way to be construed as authorization to construct any works prior to obtaining required approvals through the various Provincial and Federal agencies.

If you have any questions or concerns, please feel free to contact the administration office at 587-873-5765

Sincerely,



Wendy Wildman,
Chief Administrative Officer

cc: Diane Burtnick, Development Officer

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----- Original Message -----

Subject: Request for letter of consent to put in seasonal dock

From: "Mark Heidt" [REDACTED]

Date: 3/2/21 12:15 pm

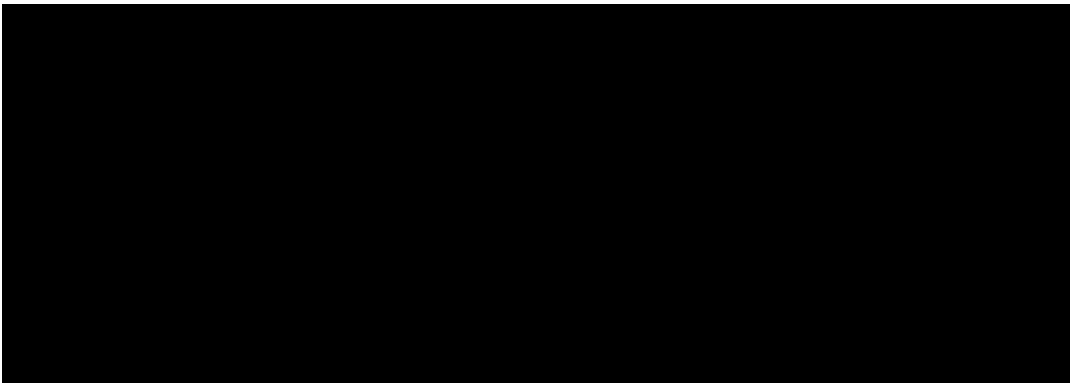
To: "administration@wildwillowenterprises.com" <administration@wildwillowenterprises.com>

Good afternoon I am currently working on our dock application and require a consent to install our shared seasonal dock. The dock will be placed in front of 9909-101ave south view lot #3 block #4 plan 4772KS , we have had the dock in this shared location since the summer of 2013. Please feel free to contact me by cell if required,

Thank-you

<![if !vml]>

<![endif]>Mark Heidt



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Town of Mayerthorpe

Report Title : SOUTHVIEW DAILY EVENTS
Report Range 11/1/2020 12:00 am to 11/30/2020 11:59 pm

Daily Event Log Report

Date: 2020/11/05

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT

Backup Officer:

Group: TOWN OF MAYERTHORPE

Event Start: 2020/11/05 1430

Event End: 2020/11/05 1600

Event: GENERAL PATROL

Location: SOUTHVIEW

Specific Location: SUMMER VILLAGE

Notes: PATROL THE SUMMER VILLAGE CHECK C IDENCE AND IT APPEARS MR.
HAS BEEN AROUND PROPERTY BUT DON'T KMNOW IF ANYTHING IS MISSING. WILL CONTINUE
TO MONITOR

RECEIVED
JAN 21 2021

Total Group Events: 1 Total Time on Events: 0 Days 2 Hours 30 Minutes

Total Events By Date: 1

Date: 2020/11/21

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Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT

Backup Officer:

Group: TOWN OF MAYERTHORPE

Event Start: 2020/11/21 1200 **Event End:** 2020/11/21 1500

Event: GENERAL PATROL

Location: SOUTHVIEW

Specific Location: SUMMER VILLAGE

Notes: STOPPED A RESIDENCE TO ENSURE BUILDING WAS SECURE. FOUND [REDACTED] INSIDE RESIDENCE UPON ARRIVAL, WE HAD A SHORT DISCUSSION AND HE GOT HEATED WITH ME WHEN HE WOULD NOT LEAVE THE RESIDENCE AFTER I EXPLAINED HE WAS TRESSPASSING, HE THEN TRIED TO PUSH ME OUT THE PATIO DOOR, WHICH I HELD MY GROUND AND HE THEN WENT BACK IN THE HOUSE AND LAYED DOWN ON THE COUCH AS HE SAID HIS BACK WENT OUT FROM THE PUSHING MATCH. I RADIOED FOR THE RCMP AND STAYED INSIDE THE RESIDENCE WITH [REDACTED] TIL THEY ARRIVED. [REDACTED] R REFUSED AN AMBULANCE. 2 MEMBERS ARRIVED AND THEY ASSISTED ME WITH GETTING [REDACTED] OUT OF THE RESIDENCE AND I SECURED THE PATIO DOORS THE BEST I CAN

Total Group Events: 1 **Total Time on Events:** 0 Days 3 Hours 0 Minutes

Total Events By Date: 1

Date: 2020/11/24

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT

Backup Officer:

Group: TOWN OF MAYERTHORPE

Event Start: 2020/11/24 1330 **Event End:** 2020/11/24 1500

Event: GENERAL PATROL

Location: SOUTHVIEW

Specific Location: SUMMER VILLAGE

Notes: CHECKED OF RESIDENCE AND WENT INSIDE ON REQUEST OF WENDY TO VERIFY IF WATER NEEDED TO BE SHUT OFF, BUT THERE IS NO WATER IN THE RESIDENCE, ALSO DID DISCOVER OUTHOUSE WAS JUST AN OLD SCHOOL ONE WITH A HOLE IN THE GROUND AND NO HOLDING TANK.

Total Group Events: 1 **Total Time on Events:** 0 Days 2 Hours 30 Minutes

Total Events By Date: 1

Total Report Events: 3

45

Town of Mayerthorpe

Report Title : SOUTHVIEW DAILY EVENTS
Report Range 12/1/2020 12:00 am to 12/31/2020 11:59 pm

Daily Event Log Report

Date: 2020/12/04

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT
Backup Officer:
Group: TOWN OF MAYERTHORPE
Event Start: 2020/12/04 1500 Event End: 2020/12/04 1630
Event: GENERAL PATROL
Location: SOUTHVIEW
Specific Location: SUMMER VILLAGE
Notes: PATROLLED THE VILLAGE, CHECKED RESIDENCE AND STILL SECURE. MADE CALL TO ARRANGE A MEETING WITH A CLEAN UP CREW FOR RESIDENCE ON THE 18TH OF THE MONTH

Total Group Events: 1 Total Time on Events: 0 Days 2 Hours 30 Minutes

Total Events By Date: 1

Date: 2020/12/10

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT
Backup Officer:
Group: TOWN OF MAYERTHORPE
Event Start: 2020/12/10 1200 Event End: 2020/12/10 1315
Event: GENERAL PATROL
Location: SOUTHVIEW
Specific Location: SUMMER VILLAGE
Notes: PATROL THE VILLAGE WITH RADAR ON THE WEST SIDE OF VILLAGE. ALL PRETTY QUIET TODAY

Total Group Events: 1 Total Time on Events: 0 Days 2 Hours 15 Minutes

Total Events By Date: 1

46

Date: 2020/12/18

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT

Backup Officer:

Group: TOWN OF MAYERTHORPE

Event Start: 2020/12/18 0900

Event End: 2020/12/18 1030

Event: GENERAL PATROL

Location: SOUTHVIEW

Specific Location: SUMMER VILLAGE

Notes: MEET WITH CLEAN UP CREW AT [REDACTED] RESIDENCE SO THEY COULD GIVE US A QUOTE FOR CLEAN UP OF SEVERAL ITEMS

Total Group Events: 1

Total Time on Events: 0 Days 2 Hours 30 Minutes

Total Events By Date: 1

Date: 2020/12/22

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT

Backup Officer:

Group: TOWN OF MAYERTHORPE

Event Start: 2020/12/22 1330

Event End: 2020/12/22 1500

Event: GENERAL PATROL

Location: SOUTHVIEW

Specific Location: SUMMER VILLAGE

Notes: PATROLLED THE SUMMER VILLAGE, SAW ONLY 2 VEH'S TODAY, CHECKED ON RESIDENCES

Total Group Events: 1

Total Time on Events: 0 Days 2 Hours 30 Minutes

Total Events By Date: 1

Total Report Events: 4

47

Town of Mayerthorpe

Report Title : SOUTHVIEW DAILY EVENTS
Report Range 1/1/2021 12:00 am to 1/31/2021 11:59 pm

Daily Event Log Report

Date: 2021/01/08

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT
Backup Officer:
Group: TOWN OF MAYERTHORPE
Event Start: 2021/01/08 1500 **Event End:** 2021/01/08 1630
Event: GENERAL PATROL
Location: SOUTHVIEW
Specific Location: SUMMER VILLAGE
Notes: PATROLLED VILLAGE CHECKING SECURITY OF RESIDENCES, DID A LITTLE RADAR BUT IT WAS VERY QUIET, NOT ONE VEHICLE DROVE BY TODAY. NOT MUCH HAS CHANGED AT RESIDENCE, STILL APPEARED SECURED.

Total Group Events: 1 **Total Time on Events:** 0 Days 2 Hours 30 Minutes

Total Events By Date: 1

Date: 2021/01/20

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT
Backup Officer:
Group: TOWN OF MAYERTHORPE
Event Start: 2021/01/20 1545 **Event End:** 2021/01/20 1700
Event: GENERAL PATROL
Location: SOUTHVIEW
Specific Location: SUMMER VILLAGE
Notes: DEALT WITH COMPLAINT OF SEWAGE AT [REDACTED], HOPEFULLY PROBLEM RESOLVED, OCCUPANTS WERE VERY ACCOMODATING AND UNDERSTANDING, AND PLUMBING INSPECTOR WAS STILL GOING TO STOP BY NEXT DAY TO HELP THEM OUT AND I GAVE THEM A COUPLE SEPTIC COMPANY NAMES, THEN QUICK PATROL OF VILLAGE

RECEIVED
FEB-11-2021

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Total Group Events: 1 **Total Time on Events:** 0 Days 2 Hours 15 Minutes

Total Events By Date: 1

Date: 2021/01/30

Group: TOWN OF MAYERTHORPE

Officer: DAWN, DWIGHT

Backup Officer:

Group: TOWN OF MAYERTHORPE

Event Start: 2021/01/30 1230

Event End: 2021/01/30 1400

Event: GENERAL PATROL

Location: SOUTHVIEW

Specific Location: SUMMER VILLAGE

Notes: PATROLLED SUMMER VILLAGE THEN RAN ACROSS THE ROAD AND WE DISCUSSED SOME THINGS THAT WERE GOING TO HAPPEN IN THE NEAR FUTURE, AND OF COURSE IT TURNED INTO A DISCUSSION AS TO WHETHER I WAS GOING TO BE SERVING "THE MAN" OR "THE PERSON" BUT REGARDLESS WE ARE TRADED AS LIVESTOCK.

Total Group Events: 1

Total Time on Events: 0 Days 2 Hours 30 Minutes

Total Events By Date: 1

Total Report Events: 3

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From: Angela Duncan <duncan.angela.ad@gmail.com>
Sent: February 22, 2021 11:24 AM
To: undisclosed-recipients:
Subject: AUMA Villages West Update
Attachments: Feb 2021 Quarterly Report.pdf

Hello Villages West Mayors, Councillors, and CAO's,

I hope that everyone is doing well. I do not have a lot to report on since my update last month, however there are a few topics and events that I would like to bring to your attention.

Municipal Sustainability Program Reporting

Based on information that some small communities have had their MSP reports sent back to them, AUMA reached out to the province to find out what is happening. The province assures us that they are simply following up with a few municipalities to clarify or obtain additional information and that their expectations on red tape reduction reporting will be in line with the size and capacity of the municipality. We are hopeful that there will be minimal back and forth with the province on these reports and that they will not be unduly burdensome to small municipalities. If you have any issues with your reporting, please let me know as this will help inform our advocacy with the province.

Policing

Thank you to those who attended the President's Summit on Policing this month, I hope that you found it useful and I appreciate your engagement and feedback. I am attaching to this email the latest quarterly report from the Interim Police Advisory Board, included in the report is the Interim Police Advisory Board's Report on Municipal Policing Priorities, the most recent information on the rollout of resources from the Police Funding Model, and some information on Alberta RCMP Community Safety Initiatives. I would like to hear any thoughts that you have on policing in Alberta, in particular as it relates to a Provincial Police Force, the Police Act Review, or the work of the Interim Police Advisory Board.

Upcoming Events

There are some upcoming events and programs that I would like to make sure you are aware of.

- **AUMA's Provincial Budget Webinar** (Feb 26, 2-3:30) - AUMA will dive into the numbers and release a report with our analysis of how the provincial budget will impact municipalities. During the Webinar we will walk through the numbers, share our perspectives, and provide you the opportunity to ask questions. You can register at https://auma-ca.zoom.us/webinar/register/WN_ftMcByFcQIW7s0741huQig.
- **AUMA's International Women's Day Virtual Gathering** (Mar 8, 12-1) - In recognition of International Women's Day, AUMA is hosting a virtual gathering promoting and supporting the participation of women in local government. To register visit <https://www.eventbrite.ca/e/aumas-international-womens-day-virtual-gathering-tickets-141737431473>.
- **Rural Connectivity Forum** (Mar 23-24) - This is being put on by a private company and is not an AUMA event, however, considering the topic, I thought it may be of interest to you. You can find more information and register at <https://www.cybera.ca/event/alberta-rural-connectivity-forum/>.
- **Municipal Leaders Caucus (MLC)** - Work is underway planning this spring's MLC, which is currently being planned for April. Due to Covid, we are planning for a virtual event. Please keep an eye out for dates and more information, coming soon.
- **Upcoming EOEP Courses** (online, register at eoep.ca)
 - Council's Role in Service Delivery (Mar 4, 11, 18, 25 from 7-8:30pm)
 - Council's Role in Strategic Planning (Apr 8, 15, 22, 29 from 2:30-4)

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As always, I would appreciate any feedback on these or anything else. Also, if there is anything in particular that you would like to see an update on in my next email, please let me know.

I hope you have a great day,

Angela Duncan

Deputy Mayor, Alberta Beach
Vice President & Director, AUMA
780-868-5103
duncan.angela.ad@gmail.com

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February 1, 2021

RE: Approved FortisAlberta 2021 Distribution Rates - REVISED

As a follow up to our correspondence in September 2020, FortisAlberta has received approval from the Alberta Utilities Commission (AUC) for its distribution rates, effective Jan. 1, 2021. In addition, the AUC has approved the Alberta Electric System Operator (AESO) 2021 tariff resulting in adjustments to the Base Transmission Adjustment Rider, the Quarterly Transmission Adjustment Rider and Balancing Pool Allocation. FortisAlberta collects and flows through all transmission and Balancing Pool costs billed by the Alberta Electric System Operator (AESO) as approved by the AUC.

The attached charts illustrate the estimated percentages and average changes for each rate class based on estimated consumption and demand between December 2020 and January 2021 on a *distribution rate only* basis and a *bundled bill* basis from your retailer. The bundled bill percentages indicated on the attached chart will vary slightly compared to the version you received in September, as it reflects the transmission rate rider adjustments.

We thank you for the opportunity to advise you of these updates. Please feel free to contact me or your Stakeholder Relations Manager should you have any questions or require further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Hunka".

Dave Hunka, Manager, Municipalities & Key Accounts North
P: (780) 464-8311
C: (780) 868-7040
E: Dave.Hunka@FortisAlberta.com

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2021 Approved Rates
Average Monthly Bill Impacts by Rate Class
DISTRIBUTION ONLY

Rate	Rate Class Description	Consumption Usage	Demand Usage	Dec 2020 Bill	Jan 2021 bill	\$ Difference	% Change
		300 kWh		\$31.75	\$32.15	\$0.40	1.2%
11	Residential	640 kWh		\$39.57	\$40.07	\$0.55	1.2%
		1200 kWh		\$52.46	\$53.12	\$0.66	1.2%
		900 kWh	5 kVA	\$84.06	\$85.06	\$1.00	1.2%
21	FortisAlberta Farm	1,400 kWh	10 kVA	\$153.98	\$155.79	\$1.81	1.2%
		7,500 kWh	25 kVA	\$363.77	\$368.00	\$4.23	1.1%
		6,000 kWh	20 kW	\$781.94	\$788.22	\$6.28	0.8%
26	FortisAlberta Irrigation	14,518 kWh	33 kW	\$1,324.69	\$1,335.31	\$10.62	0.8%
	*Seasonal bill impact	45,000 kWh	100 kW	\$4,021.74	\$4,053.98	\$32.24	0.8%
31	Streetlighting (Investment)	5,144 kWh	12,500 W	\$2,288.25	\$2,327.79	\$39.54	1.7%
33	Streetlighting (Non-Investment)	7,900 kWh	12,000W	\$819.12	\$833.42	\$14.30	1.7%
38	Yard Lighting	5,000 kWh	12,000 W	\$1,436.58	\$1,462.13	\$25.55	1.7%
	Rates 31, 33 and 38 is based on 100 HPS Lights in assorted fixture wattages.						
		1,083 kWh	5 kW	\$72.76	\$73.59	\$0.83	1.1%
41	Small General Service	2,165 kWh	10 kW	\$129.04	\$130.52	\$1.48	1.1%
		10,825 kWh	50 kW	\$579.34	\$585.96	\$6.62	1.1%
		2,590 kWh	7.5 kW	\$178.57	\$180.51	\$1.94	1.1%
44/45	Oil and Gas Service	5,179 kWh	15 kW	\$333.11	\$336.72	\$3.61	1.1%
		25,895 kWh	75 kW	\$1,501.36	\$1,517.52	\$16.16	1.1%
		32,137 kWh	100 kW	\$590.52	\$589.40	-\$1.12	-0.2%
61	General Service	63,071 kWh	196 kW	\$942.62	\$940.88	-\$1.74	-0.2%
		482,055 kWh	1500 kW	\$4,848.13	\$4,840.13	-\$8.24	-0.2%
		824,585 kWh	2500 kW	\$9,623.97	\$9,525.10	-\$98.87	-1.0%
63	Large General Service	1,529,869 kWh	4638 kW	\$11,199.66	\$11,081.29	-\$118.37	-1.1%
		3,298,338 kWh	10,000 kW	\$15,151.44	\$14,984.13	-\$167.31	-1.1%
65	Transmission Connected Service	The Distribution component will increase from \$37.49/day to \$39.17/per day. The Transmission Component is the applicable rate of the AESO					

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2021 Approved Rates
Average Monthly Bill Impacts by Rate Class
BUNDLED BILL Including Energy, Retail, and DT Rates & Riders

Rate	Rate Class Description	Consumption Usage	Demand Usage	Dec 2020 Bill	Jan 2021 bill	\$ Difference	% Change
		300 kWh		\$75.40	\$76.94	\$1.54	2.0%
11	Residential	640 kWh		\$123.68	\$126.59	\$2.91	2.3%
		1200 kWh		\$203.24	\$208.36	\$5.12	2.5%
		900 kWh	5 kVA	\$193.79	\$200.12	\$6.33	3.2%
21	FortisAlberta Farm	1,400 kWh	10 kVA	\$321.64	\$331.74	\$10.10	3.0%
		7,500 kWh	25 kVA	\$1,237.47	\$1,286.11	\$48.64	3.8%
		6,000 kWh	20 kW	\$1,587.94	\$1,723.51	\$135.57	7.9%
26	FortisAlberta Irrigation	14,518 kWh	33 kW	\$3,234.64	\$3,558.05	\$323.41	9.1%
	*Seasonal bill impact	45,000 kWh	100 kW	\$9,886.93	\$10,888.68	\$1,001.75	9.2%
31	Streetlighting (Investment)	5,144 kWh	12,500 W	\$3,029.68	\$3,082.75	\$53.07	1.7%
33	Streetlighting (Non-Investment)	7,900 kWh	12,000W	\$1,669.39	\$1,698.42	\$29.03	1.7%
38	Yard Lighting	5,000 kWh	12,000 W	\$1,979.14	\$2,012.07	\$32.93	1.6%
	Rates 31, 33 and 38 is based on 100 HPS Lights in assorted fixture wattages.						
		1,083 kWh	5 kW	\$212.43	\$218.99	\$6.56	3.0%
41	Small General Service	2,165 kWh	10 kW	\$400.44	\$413.35	\$12.91	3.1%
		10,825 kWh	50 kW	\$1,904.50	\$1,968.26	\$63.76	3.2%
		2,590 kWh	7.5 kW	\$467.36	\$478.72	\$11.36	2.4%
44/45	Oil and Gas Service	5,179 kWh	15 kW	\$899.08	\$921.85	\$22.77	2.5%
		25,895 kWh	75 kW	\$4,284.27	\$4,394.69	\$110.42	2.5%
		32,137 kWh	100 kW	\$3,828.11	\$3,892.65	\$64.54	1.7%
61	General Service	63,071 kWh	196 kW	\$7,143.33	\$7,270.46	\$127.13	1.7%
		482,055 kWh	1500 kW	\$52,152.08	\$53,129.02	\$976.94	1.8%
		824,585 kWh	2500 kW	\$87,932.39	\$87,418.81	-\$513.58	-0.6%
63	Large General Service	1,529,869 kWh	4638 kW	\$148,716.35	\$147,831.52	-\$884.83	-0.6%
		3,298,338 kWh	10,000 kW	\$311,502.17	\$309,683.77	-\$1,818.40	-0.6%
65	Transmission Connected Service	The Distribution component will increase from \$37.49/day to \$39.17/per day. The Transmission Component is the applicable rate of the AESO.					

Riders Included:

Municipal Franchise Fee
(Average by Rate Class)
Municipal assessment Rider (0.73% on July 1, 2020)
Average EPCOR Default Supply Rate
2020 Q4 QTAR and 2021 Q1 QTAR
January 2020 BPAR and 2021 BPAR

Retail/Energy Price Assumptions

Rates 11 through 44 – October 2019 to September 2020
Average EEAI RRT Rates
Rates 61 and 63 – August 2019 to July 2020-2020 Base TAR and 2021 Base TAR

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CUSTOMER CONTRIBUTIONS SCHEDULES **

**Table 1
Maximum Investment Levels for Distribution Facilities
When the Investment Term is 15 years or more**

Type of Service	Maximum Investment Level
Rate 11 Residential	\$2,638 per service
Rate 11 Residential Development	\$2,638 per service, less FortisAlberta's costs of metering and final connection
Rate 21 Farm and Rate 23 Grain Drying	\$5,984 base investment, plus \$857 per kVA of Peak Demand
Rate 26 Irrigation	\$5,984 base investment, plus \$952 per kW of Peak Demand
Rate 38 Yard Lighting	\$851 per fixture
Rate 31 Streetlighting (Investment Option)	\$3,080 per fixture
Rate 41 Small General Service	\$5,984 base investment, plus \$952 per kW of Peak Demand
Rate 45 Oil and Gas Service	\$5,984 base investment, plus \$952 per kW of Peak Demand FortisAlberta invests as required per unmetered to metered service conversion program.
Rate 61 General Service (less than or equal to 2 MW)	\$5,984 base investment, plus \$952 per kW for the first 150 kW, plus \$120 for additional kW of Peak Demand
Rate 63 Large General Service (over 2 MW) (Distribution Connected)	\$108 per kW of Peak Demand, plus \$119 per metre of Customer Extension

**Alberta Utilities Commission (AUC) Decision 24843-D01-2020, Dec. 18, 2020.

Maximum Investment Levels are reduced if the expected Investment Term is less than 15 years.

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Municipal District of Spirit River No. 133

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Fax (780) 864-4303

January 27, 2021

Honourable Premier Kenney
Alberta Premier

Email: premier@gov.ab.ca

Dear Honourable Premier Kenney,

Thank you for your response to our letter regarding our position on the handling of COVID-19 restrictions. We appreciate the tenuous position the government is in when making decisions surrounding the containment of COVID-19.

The MD of Spirit River appreciates the importance of preserving life, however we also recognize that the loss of lives during the shutdown will not be limited to those who die from COVID-19.

The aftermath of the lockdown as identified in the paper *COVID-19: Rethinking the Lockdown Groupthink*, by Ari R Joffe MD ,FRCPC with the Stollery Hospital, clearly outlines the massive cost both financially and to human lives if we continue with the lockdowns.

In the paper Joffe states, " ... lockdowns are far more harmful to human health than COVID-19 can be." We have attached a copy of his paper.

There are numerous other Physicians and papers, including the Great Barrington Declaration (gbdeclaration.org), a statement written by three public health experts from Harvard, Stanford and Oxford, that back the findings of Joffe.

Our council wishes to publicly state that we support the governments steps to reopening the economy and choosing a balanced approach to ensure a quick return to our economy and our wellbeing. We commend the leadership role you are taking.

Sincerely,

Tony Van Rootselaar, Reeve
Municipal District of Spirit River

Cc: Honourable Tyler Shandro Minister of Health
Honourable Nate Glubish, Minister of Service Alberta
Honourable Doug Schweitzer, Minister of Jobs, Economy and Innovation
Todd Loewen, MLA Central Peace Notley
Dan Williams, MLA Peace River

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Rethinking the Lockdown Groupthink

COVID-19: Rethinking the Lockdown Groupthink

Author: Ari R Joffe MD, FRCPC*

Affiliation: Department of Pediatrics, Division of Critical Care Medicine, University of Alberta and Stollery Children's Hospital, Edmonton, Alberta, Canada; John Dossetor Health Ethics Center, University of Alberta, Edmonton, Alberta, Canada.

Corresponding Author: Ari R Joffe MD; Email: ari.joffe@ahs.ca ORCID: <http://orcid.org/0000-0002-4583-707X>

Keywords: Cost-benefit analysis; COVID-19; Groupthink; Lockdowns; Public Health

Abstract: The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) has caused the Coronavirus Disease 2019 (COVID-19) worldwide pandemic in 2020. In response, most countries in the world implemented lockdowns, restricting their population's movements, work, education, gatherings, and general activities in attempt to 'flatten the curve' of COVID-19 cases. The public health goal of lockdowns was to save the population from COVID-19 cases and deaths, and to prevent overwhelming health care systems with COVID-19 patients. In this narrative review I explain why I changed my mind about supporting lockdowns. First, I explain how the initial modeling predictions induced fear and crowd-effects [i.e., groupthink]. Second, I summarize important information that has emerged relevant to the modeling, including about infection fatality rate, high-risk groups, herd immunity thresholds, and exit strategies. Third, I describe how reality started sinking in, with information on significant collateral damage due to the response to the pandemic, and information placing the number of deaths in context and perspective. Fourth, I present a cost-benefit analysis of the response to COVID-19 that finds lockdowns are far more harmful to public health than COVID-19 can be. Controversies and objections about the main points made are considered and addressed. I close with some suggestions for moving forward.

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Introduction

The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) initially caused Coronavirus Disease 2019 (COVID-19) in China in December 2019, and has caused a worldwide pandemic in 2020. In response, most countries in the world implemented lockdowns, restricting their population's movements, work, education, gatherings, and general activities in attempt to 'flatten the curve' of COVID-19 cases. Even now, as the so-called 'second-wave' of COVID-19 cases is occurring, governments are considering and some implementing another lockdown to again 'flatten the curve'. The public health goal of lockdowns is to save the population from COVID-19 cases and deaths, and to prevent overwhelming health care systems with COVID-19 patients. I was a strong proponent of lockdowns when the pandemic was first declared.¹

In this narrative review I explain why I changed my mind. First, I explain how the initial modeling predictions induced fear and crowd-effects [i.e., groupthink]. Second, I summarize important information that has emerged relevant to the modeling. Third, I describe how reality started sinking in, with information on significant collateral damage from the response to the pandemic, and on the number of deaths in context. Fourth, I present a cost-benefit analysis of the response to COVID-19. I close with some suggestions for moving forward.

An important point must be emphasized. The COVID-19 pandemic has caused much morbidity and mortality. This morbidity and mortality have been, and continue to be, tragic.

1. The initial predictions induce fear

1.1 How it started: modelling

Early modeling made concerning predictions that induced fear (Table 1). Kissler et al. predicted the need for intermittent lockdowns occurring for a total of 75% of the time, even after July 2022, to avoid "overwhelming critical care capacity."²⁻⁴ In their discussion they wrote that the response "is likely to have profoundly negative economic, social, and educational consequences... We do not take a position on the advisability of these scenarios given the economic burden...."² On March 16, 2020, the Imperial College COVID-19 Response Team published modelling of the impact of non-pharmaceutical interventions (NPI) to reduce COVID-19 mortality and healthcare demand in the United States (US) and United Kingdom (UK).⁵ They wrote that suppression "needs to be in force for the majority [$>2/3$ of the time] of the 2 years of the simulation," without which there would be 510,000 deaths in Great Britain and 2.2 million deaths in the United States by mid-April, surpassing ICU demand by 30 times.⁵ In their discussion they wrote that "we do not consider the ethical or economic implications [page 4]... The social and economic effects of the measures which are needed to achieve this policy goal will be profound [page 16]...."⁵ The Imperial College COVID-19 Response Team extended this to the global impact of the pandemic on March 26, 2020,⁶ and estimated that without lockdowns there would be "7.0 billion infections and 40 million deaths globally this year."⁶ In their discussion they wrote "we do not consider the wider social and economic costs of suppression, which will be high and may be disproportionately so in lower income settings."⁶ In a later publication, this group modeled that "across 11 countries [in Europe], since the beginning of the epidemic [to May 4], 3,100,000 (2,800,000 – 3,500,000) deaths have been averted due to [NPI] interventions...."⁷ Another group similarly claimed that, in 5 countries [China, South Korea, Iran, France, US], NPIs "prevented or delayed [to April 6] on the order of 62 million confirmed cases."⁸

Rethinking the Lockdown Groupthink

1.2 How it took off: Crowd Effects [Groupthink]

There ensued a contagion of fear and policies across the world.⁹⁻¹² Social media spread a growing sense of panic.¹³ Popular media focused on absolute numbers of COVID-19 cases and deaths independent of context, with a “sheer one-sided focus” on preventing infection.¹² There was an appeal of group hysteria; “everyone got a break from their ambitions and other burdens carried in normal life”, and became united in crowds, which have a numbing effect.⁹ There was talk of “acting together against a common threat”, “about seeming to reduce risks of infection and deaths from this one particular disease, to the exclusion of all other health risks or other life concerns”, with virtue signaling to the crowd, of “something they love to hate and be seen to fight against.”⁹ A war effort analogy is apt, with the “unquestioning presumption that the cause is right, that the fight will be won, that naysayers and non-combatants [e.g., not wearing a mask] are basically traitors, and that there are technical solutions [e.g., vaccine and drugs] that will quickly overcome any apparent problem or collateral damage.”⁹ This was associated with a “disregard and disinterest on the part of individuals in the enormity of the collateral damage, either to their own kids, people in other countries, their own futures....”⁹ The crisis was framed as a “war against an invisible enemy,” presenting the false choice between “lives and livelihood,” spreading fear and anxiety while ignoring the costs of the measures taken - this resulted in conformity and obedience.^{12,13} There has been a strong positive association between new daily and total confirmed COVID-19 cases in a country and support for the heads of government, reflecting the “rally ‘round the flag’” effect [“the perception that one’s group is under attack and hence unity is required to defend the group”].¹⁴

The NPIs spread to ~80% of OECD countries within a 2-week period in March 2020.¹⁵ A main predictor of a country implementing NPIs was prior adoptions of a policy among spatially proximate countries, i.e., the number of earlier adopters in the same region.¹⁵ Variables not predicting adoption of NPIs included the number of cases or deaths, population >65 years old, or hospital beds per capita in the country.¹⁵ It seems we were all “stuck in this emotional elevation of COVID-19 deaths and suffering above everything else that could possibly matter.”¹⁶ There was the unquestioned assumption that “there were and are no alternatives to extreme measures implemented on entire populations with little consideration of cost and consequences [externalities].”¹⁰ Even now, how a country ‘performed’ is measured by COVID-19 cases and deaths without denominators, without other causes of deaths considered, without considering overall population health trade-offs “that cannot be wished away” [e.g., the future of our children from lack of education and social interaction, and “changes to our wealth-generating capacity that has to pay for future policies”],⁹ and without considering how sustainable current policies are [protection is temporary and leaves us susceptible; “there is no exit from the pandemic; there is only an exit from the response to it”¹⁰].

All of this, even though in October 2019 the WHO published that for any future Influenza pandemic: travel-related measures are “unlikely to be successful... are likely to have prohibitive economic consequences”; “[measures] not recommended in any circumstances: contact tracing, quarantine of exposed individuals, border closure”; social distancing measures [closures of workplace, avoiding crowding and closing public areas] “can be highly disruptive, and the cost of these measures must be weighed against their potential impact”; and “border closures may be considered only by small island nations in severe pandemics... but must be weighed against potentially serious economic consequences.”¹⁷ Referring to the 2009 influenza pandemic, Bonneux and Van Damme wrote that “the culture of fear” meant that “worst-case thinking replaced balanced risk assessment” on the part of influenza “experts”.¹⁸ But “the modern disease expert knows a lot about the disease in question, but does not necessarily know much about general public health, health economics, health policy, or public

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policy, which are much more about priority setting and hence resource allocation between competing priorities [because resources are limited, wise allocation saves lives].”¹⁹

Some of this crowd effect is related to cognitive biases, “the triumph of deeply human instincts over optimal policy.”²⁰ Identifiable lives bias included the identifiable victim effect [we ignore hidden ‘statistical’ deaths reported at the population level], and identifiable cause effect [we prioritize efforts to save lives from a known cause even if more lives would be saved through alternative responses]. Present bias made us prefer immediate benefits to even larger benefits in the future [steps that would prevent more deaths over the longer term are less attractive].²⁰⁻²² The proximity and vividness of COVID-19 cases (i.e., availability and picture superiority bias), and anchoring bias [we adhere to our initial hypothesis, and disregard evidence that disproves our favorite theory] affected our reasoning.^{21,23} Superstitious bias, that action is better than non-action even when evidence is lacking, reduced anxiety.¹² Escalation of commitment bias, investing more resources into a set course of action even in the face of evidence there are better options, made us stand by prior decisions.²⁴ We need to take an “effortful pause”, reflecting on aspects of the pandemic that don’t fit with our first impressions.²⁵ The groupthink [“the tendency for groups to let the desire for harmony and conformity prevail, resulting in dysfunctional decision-making processes... becoming less willing to alter their course of action once they settle on it”] needs to be replaced by deliberative consideration of all the relevant information.²⁴

2. Important New Information Emerging

2.1 The Infection Fatality Rate (IFR)

Based on seroprevalence data as of September 9, 2020, including 82 estimates from across 51 locations in the world, Ioannidis found that the median corrected IFR was 0.23% [range 0.00 to 1.54%].²⁶ Among those <70 years old the median crude and corrected IFR was 0.05% [range 0.00 to 0.31%]. He estimated that for those <45 years old the IFR was almost 0%, 45-70 years old about 0.05-0.30%, and ≥70 years old ≥1%, rising to up to 25% for some frail elderly people in nursing homes.²⁷ He estimated that at that point there were likely 150-300 million infections that had occurred in the world, not the reported 13 million, most being asymptomatic or mildly symptomatic.^{26,27} The WHO recently estimated that about 10% of the global population may have been already infected, which, with a world population of 7.8 billion, and 1.16 million deaths, would make a rough approximation of IFR as 0.15%.²⁸

Even these numbers are most likely a large *over-estimate* of the IFR. First, in serosurveys the vulnerable [e.g., homeless, imprisoned, institutionalized, disadvantaged people], who have higher COVID-19 incidence, are more difficult to recruit. Second, there is likely a healthy volunteer bias in serosurvey studies. Third, and most importantly, there is a lack of sensitivity of serology.²⁹⁻³⁴ Many reports now document there is often a rapid loss of antibody in COVID-19 patients that were less severely ill.²⁹⁻³⁶ Moreover, at least 10% of COVID-19 patients never seroconvert, and many more may only develop a mucosal IgA response,^{37,38} or only a T-cell response [which may be the case in up to 50% of mild infections].^{39,40} Finally, most data come from unusual epicenters where “infection finds its way into killing predominantly elderly citizens” in nursing homes and hospitals,²⁶ and where “[in Italy, Spain, France] an underfunded, understaffed, overstretched and increasingly privatized and fractured healthcare system contribute to higher mortality rates... [Lombardy] has long been an experimental site for healthcare privatization.”¹⁰ With “precise non-pharmacological measures that selectively try to protect high-risk vulnerable populations and settings, the IFR may be brought even lower.”²⁶

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A serology-informed estimate of the IFR in Geneva, Switzerland put the IFR at: age 5-9 years 0.0016% (95% CrI 0, 0.019), 10-19 years 0.00032% (95% CrI 0, 0.0033), 20-49 years 0.0092% (95% CrI 0.0042, 0.016), 50-64 years 0.14% (95% CrI 0.096, 0.19), and age 65+ outside of assisted care facilities 2.7% (95% CrI 1.6, 4.6), for an overall population IFR 0.32% (95% CrI 0.17, 0.56).⁴¹ Similarly, a large study from France found an inflection point in IFR around the age of 70 years [see their Figure 2D].⁴²

2.2 High-risk groups

Ioannidis et al. analyzed reported deaths from epicenters, in 14 countries and 13 states in the United States, to June 17, 2020.⁴³ They found that in those age <65 years the relative risk of death was 30-100X lower in Europe and Canada, and 16-52X lower in the USA, compared to those ≥65 years old.⁴³ They estimated that those age 40-65 years old have double the risk of the overall <65 year old group, and females have 2X lower risk than males.⁴³ This is compatible with a steep inflection point in the IFR around the age of 70 years old. Older adults in nursing homes accounted for at least half of the COVID-19 deaths in Europe and North America, and over 80% in Canada.^{44,45} In nursing homes the usual median survival is ~2.2 years, with a yearly mortality rate >30%, even without COVID-19.⁴⁶ Outbreaks of the seasonal respiratory coronavirus in adults living in long-term care facilities are common, with case-fatality rates of 8%.⁴⁷ Ioannidis et al estimated that the average daily risk of COVID-19 death for an individual <65 years old was equivalent to the risk from driving between 12-82 miles/day during the pandemic period, higher in the UK and 8 states [106-483 miles/day], and only 14 miles/day in Canada.⁴³

By far the most important risk factor is older age.⁴¹⁻⁴³ There is a ~1000 fold difference in death risk for people >80 years old versus children.⁴³ In the largest observational study I am aware of, the OpenSAFELY population in the UK, including over 17 million people with 10,900 COVID-19 deaths, compared to those age 50-59 years old, the Hazard Ratio for death from COVID-19 ranged from 0.06 for those age 18-39 years, to >10 for those age >80 years.⁴⁸ In comparison, even important co-morbidities such as severe obesity, uncontrolled diabetes, recent cancer, chronic respiratory or cardiac or kidney disease, and stroke or dementia rarely had HR approaching ≥2.⁴⁸ Those co-morbidities with HR>2, including hematological malignancy, severe chronic kidney disease, and organ transplant, affected only 0.3%, 0.5%, and 0.4% of the total population.⁴⁸

A rapid systematic review found that only age had a “consistent and high strength association with hospitalization and death from COVID-19... strongest in people older than 65 years...”⁴⁹ Other risk groups for mortality had either a low-moderate effect [obesity, diabetes mellites, male biological sex, ethnicity, hypertension, cardiovascular disease, COPD, asthma, kidney disease, cancer] and/or were inconsistently found to have an effect in the literature [obesity, diabetes mellites, pregnancy, ethnicity, hypertension, cardiovascular disease, COPD, kidney disease].⁴⁹ Even with these risk factors, the absolute risk may still be low, given the overall IFR in the population at that age.

2.3 Objection: Is This Age Discrimination?

An objection may be that singling out the elderly as high risk is age discrimination. This is false on two counts. First, pointing out the truly high-risk group is the elderly is only emphasizing that this is the group that requires protection from severe COVID-19 outcomes. Second, as Singer has pointed out, “what medical treatment does, if successful, is prolong lives. Successfully treating a disease that kills children and young adults is, other things being equal, likely to lead to a greater prolongation, and thus do more good, than successfully treating a disease that kills people in the 70’s, 80’s, and 90’s.”⁵⁰ In fact, when we try to stay healthy “what we are trying to do is to live as long as we can, compatibly with

Rethinking the Lockdown Groupthink

having a positive quality of life for the years that remain to us. If life is a good, then, other things being equal, it is better to have more of it rather than less.⁵⁰ We should count every quality adjusted life year equally, whether it is in the life of a teenager or a 90-year old.^{50,51} This was also the conclusion of “The Fair Priority Model” for global vaccine allocation, prioritizing preventing premature death using a standard expected years of life lost metric.⁵²

Different from discrimination such as racism [“no one who is black was ever white”], in this case “everyone who is old was once young”, i.e., there is an impartial age-neutral perspective from which we can all see that it is in everyone’s interests to save the lives of younger people.⁵¹ In a thought-experiment, Singer asks us to imagine that you have just become a parent, at some stage in your child’s life she is likely to be infected with a dangerous virus, and her chances of being infected and dying from the infection are the same in any year of her life. Now imagine that curative drug A, effective if <40 years old, and drug B, effective if >40 years old, are so costly that the government cannot afford both to be produced. Which drug should be produced? It is clearly contrary to your child’s interests to vote for drug B: this would increase her risk of dying before her 40th birthday; to improve her chances of living a longer life, we vote for drug A.⁵¹

Veil of ignorance reasoning is a widely respected and transparent standard for adjudicating claims of fairness. A fair distribution of resources is said to be one that people would choose out of self-interest, without knowing whom among those affected they will be: what would I want if I didn’t know who I was going to be? In an experimental study participants were asked to decide whether to give the last available ventilator in their hospital to the 65 year old who arrived first and is already being prepped for the ventilator, or the 25 year old who arrived moments later, assuming whoever is saved will live to age 80 years old. In the veil of ignorance condition, the participant was asked to “imagine that you have a 50% chance of being the older patient, and 50% the younger.”⁵³ Asked if “it is morally acceptable to give the last ventilator to the younger patient”, 67% in the veil of ignorance condition vs. 53% in control answered ‘yes’ (odds ratio 1.69; 95% CI 1.12, 2.57); compared to younger age participants (18-30 years), older participants (odds ratio 3.98) and middle age participants (odds ratio 2.02) were more likely to agree.⁵³ Asked if “you want the doctor to give the ventilator to the younger patient”, 77% answered ‘yes’, maximizing the number of life-years saved rather than the number of lives saved.⁵³

2.4 The Herd Immunity Threshold

The classical herd immunity level is calculated based on the basic reproduction number (R_0) as $(1 - 1/R_0)$, and is the proportion of the population that must be immune to a virus before the effective reproduction number (R_e) is <1, and thus the virus cannot perpetuate itself in the population. This calculation assumes a homogeneously mixing population, where all are equally susceptible and infectious. For R_0 2.5, the threshold is ~60% of the population. However, the assumption is not valid, as there is heterogeneity in social mixing and connectivity, with higher and lower levels of activity and contacts. One model incorporating heterogeneity of social mixing found the threshold, for R_0 2.5, to be 43%, and likely lower as other heterogeneity in the population was not modelled [e.g., sizes of households, attending school or big workplaces, metropolitan versus rural location, protecting the elderly, etc.].⁵⁴ A model that incorporated variation in connectivity compatible with other infectious diseases found that for R_0 3, the threshold is 10-25% of the population developing immunity.⁵⁵ Another model that “fit epidemiological models with inbuilt distributions of susceptibility or exposure to SARS-CoV-2 outbreaks” calculated “herd immunity thresholds around 10-20% [because]... immunity induced by infection... [contrary to random vaccination] is naturally selective.”⁵⁶ In support of this heterogeneity,

Rethinking the Lockdown Groupthink

it is now known that there is overdispersion of transmission of SARS-CoV-2, with 80% of secondary infections arising from just ~10% of infected people.⁵⁷⁻⁵⁹

2.5 Objection: consider Sweden

It has been claimed that Sweden's strategy of achieving herd immunity failed, with excess deaths and a suffering economy. However, that is not clear. First, cases and deaths fell consistently in later July/August, with deaths continuing at a very low level into October despite no lockdown.⁶⁰ Second, serosurveys in mid-July found 14.4% of the population may be seropositive; thus, with 5761 deaths as of August 1, in a population of 10.23 million, the crude IFR may have been 0.39%, and even lower considering the sensitivity of serology discussed above.⁶¹ Early on, Sweden did not adequately protect those in nursing homes, a failing that also inflates the IFR.⁶² The excess all-cause mortality per 100,000 up to July 25, 2020 in Sweden was 50.8, lower than in England and Wales, Spain, Italy, Scotland, Belgium, Netherlands, France, and the US.^{62,63} Third, in a globalized world, with entangled webs of supply, demand, and beliefs, "what we do here will devastate people not just here, but also elsewhere and everywhere."⁶⁴ Compared to Denmark, with an economy heavily dependent on pharmaceuticals, Sweden's recession looks bad. However, compared to the European Union, Sweden looks good; the European Commission forecasts a better 2020 economic result for Sweden (GDP -5.3%) than many other comparable European countries (e.g., France -10.6%, Finland -6.3%, Austria -7.1%, Germany -6.3%, Netherlands -6.8%, Italy -11.2%, Denmark -5.2%).⁶⁵

2.6 The Exit Strategy

Herd immunity appears to be the only exit from the response to COVID-19. This can be achieved naturally, or through vaccine. For the reasons given here, it is very possible that the lockdowns are only delaying the inevitable.

There are problems with the natural herd immunity approach involving the currently projected and implemented waves of lockdowns. First, this will take years to occur, causing economic and social devastation. This also assumes immunity is long-lasting such that cycles of shutting down can be successful over 2 or 3 years, and without which it is more likely COVID-19 will be an annual occurrence.² Second, the less devastating test-trace-isolation/quarantine strategy seems not feasible. In the United States it was estimated that there would be a need to train an extra 100,000 public health workers, and to do >5 million SARS-CoV-2 tests per day, necessitating the building of many new very large testing factories.⁶⁶ Countries would still need to keep borders closed and maintain physical distancing (e.g., no large events) in order to make contact tracing feasible; this would be for years, during which people may become very reluctant to be tested. Modeling suggests that to be successful, because asymptomatic and pre-symptomatic individuals may account for 48-62% of transmission (even in nursing home residents),⁶⁷ contact tracing and quarantine would have to occur within 0.5 days for >75% of contacts, necessitating mobile app technology that has its own feasibility and ethical problems.⁶⁸⁻⁷⁰

Vaccine induced herd immunity involves many assumptions. First, there will be the discovery of an effective and safe vaccine that does not cause antibody-dependent (or other immune) enhancement; this, even though the problem in severe COVID-19 may be the host response, especially in the elderly and children.⁷¹⁻⁷³ Second, the immune response will be durable, not last for only months, and have little immunosenescence [reduced response to vaccine with rapid decline of antibody levels] in the elderly.^{72,74} Third, that mass production and delivery of the vaccine will occur very soon, and be done equitably to all humans on Earth; otherwise, there is the risk of conflict, war, and terrorism in response

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to gross inequity in vaccine distribution.⁵² In response to the 2009 pandemic of H1N1 Influenza the United States achieved a weekly vaccination rate of only 1% of the population.⁷² Vaccine refusers may include 30% of the population in North America and globally,^{72,75} and if they have “increased contact rates relative to the rest of the population, vaccination alone may not be able to prevent an outbreak.”⁷² There is already competition among high income countries, and likely crowding out of low-income countries that represent about half of the human population.⁷⁶ The only globally eradicated human disease is smallpox, which took “30 years to achieve”, and the “fastest historical development of a [new] vaccine was 4 years (Merck: mumps), while most take 10 years.”⁷⁷

3. Reality Sinking In

3.1 Iatrogenic Collateral Harms: lockdown as a ‘drug’ with dangerous side-effects when its use is prolonged

The COVID-19 response has threatened to make, and likely has already made, several Sustainable Development Goals for the most vulnerable among us in low-income countries out of reach.⁷⁸⁻⁸² The numbers involved are staggering, and in the many millions (Table 2). The response has had major detrimental effects on childhood vaccination programs, education, sexual and reproductive health services, food security, poverty, maternal and under five mortality, and infectious disease mortality.⁷⁸⁻⁹³ The effect on child and adolescent health will “set the stage for both individual prosperity and the future human capital of all societies.”⁹⁴ The destabilizing effects may lead to chaotic events (e.g., riots, wars, revolutions).^{95,96}

In high-income countries, the collateral damage has also been staggering (Table 3), affecting visits to emergency departments and primary care for acute (e.g., myocardial infarction, stroke) and ‘non-urgent’ (‘elective’ surgery, and cancer diagnosis and treatment) conditions, intimate partner violence, deaths of despair, and mental health.^{12,97-112} Of excess deaths occurring during the pandemic in high-income countries, 20-50% are not due to COVID-19.^{62,113-115} There was an unexplained 83% increase of 10,000 excess deaths from dementia in England/Wales in April, and an increase in non-COVID-19 Alzheimer disease/dementia deaths in the US, attributed to lack of social contact causing a deterioration in health and wellbeing of these patients.^{115,116}

COVID-19 “Is a disease of inequality and it also creates even more inequality.”⁹⁵ Unequal structural determinants of health meant that disadvantaged minorities have experienced a greater toll from the COVID-19 “Great Lockdown”,¹¹⁷ with contributors including lower income (e.g., economic and job insecurity), homelessness or crowding at home (and in transportation), worse health care (and pre-existing health disparities), and inability to work from home (e.g., for essential, manual, and temporary workers).^{45,95,118,119} COVID-19 policing has involved “racial profiling and violence, crippling punishments for those living in poverty, and criminalization of mental health.”¹²⁰ Refugees are particularly vulnerable, undertaking “arguably the most essential form of travel... with little access to water, space or health care.”¹²⁰ The effect on the health of women and girls is particularly severe, disproportionately affecting sexual and reproductive health services, income, and safety.^{121,122}

3.2 Numbers in Context

Numbers without denominators and without context are deceiving. Some data in this section may put the COVID-19 pandemic numbers in perspective.

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Assuming all deaths *with* COVID-19 are deaths *from* COVID-19, in the USA as of August 22, 2020, COVID-19 was the cause of 9.24% of overall deaths; this means that >90% of deaths are not a focus of our attention (ETable 1, see Additional file 1).¹²³ Similarly, in Canada, COVID-19 was the cause of 5.96% of estimated deaths over the first 6 months of 2020, again meaning >94% of deaths are not a focus of our attention, and not being reported daily in the press as are COVID-19 deaths (ETable 2, see Additional file 1).^{124,125} A similar analysis in the UK found that, during 16 weeks of the pandemic, the risk of death was “equivalent to experiencing around 5 weeks extra ‘normal’ risk for those over [age] 55, decreasing steadily with age, to just 2 extra days for schoolchildren... [and in those] over 55 who are [detected as] infected with COVID-19, the additional risk of dying is slightly more than the ‘normal’ risk of death from all other causes over one year.”¹²⁶

Across the world in 2019 there were 58,394,000 deaths, >4.87 million deaths/month and >159,983 deaths/day; COVID-19 deaths are shown relative to these underlying deaths in Table 4.^{127,128} The number of deaths is highly unequal, with far more deaths at earlier ages in low-income countries and Sub-Saharan Africa.¹²⁷ If all countries were to achieve the Sustainable Development Goal of Under 5 Mortality Rate <25 deaths/1000 by 2030, from the year 2015 this would avert 12.8 million deaths.¹²⁹ From 2000-2017, if all units had an Under 5 Mortality Rate that matched the best performing unit in each respective country, this would have averted 58% of deaths in those under 5 years, that is, 71.8 (68.5 to 74.9) million deaths.¹³⁰ A realistic projection was that if the pandemic takes 5 years for “full cycling”, 60% of the global population is infected, and the IFR is 0.19%, COVID-19 will account for 2.9% of global deaths. If only 10% of the high-risk population are infected, COVID-19 will account for 0.6% of global deaths over 5-years.⁹⁵

Some causes of death in the world are given in Table 5; COVID-19 deaths (~3500/day up to September 4, 2020) are also shown.¹³¹⁻¹⁴³ For example, there are an estimated 4110 deaths/day from Tuberculosis,¹³³ 3699 deaths/day from motor vehicle collisions,¹³¹ 21,918 deaths/day due to use of tobacco,¹³² >3400 deaths/day from Under 5 cases of pneumonia or diarrhea,^{137,138} and 30,137 deaths per day from dietary risk factors.¹³⁹ The WHO has estimated that if all people would adopt a vegan diet this would avert 13.7 M (95% CI 7.9, 19.4) deaths by 2030.⁸⁴ Some of these deaths are preventable if we were to take appropriate action, and some we as a society have decided we are willing to accept in trade-off for our freedom and wellbeing.

4. An Informed Cost-Benefit Analysis of Lockdowns

4.1 The Corona Dilemma

The economist Paul Frijters has asked us to consider “The Corona Dilemma” (Figure 1a and 1b) modelled after the so-called “Trolley Problem” in philosophy.¹⁴⁴ He asks us to imagine “you are the decision maker who can pull the lever on the train tracks to avoid the coming train from going straight.”¹⁴⁴ Our options are to divert the train or not. “If you do not divert the train – you are letting the virus rage unchecked [i.e., COVID-19 deaths].”¹⁴⁴ On the other hand, “if you pull the lever – the diverted train will put whole countries into isolation, destroying many international industries and thus affecting the livelihood of billions, which through reduced government services and general prosperity will cost tens of millions of lives [i.e., COVID-19 reaction].”¹⁴⁴ The world pulled the lever, and the unintended health consequences of these measures did not play a part in modelling or policy.

4.2 Cost-Benefit Analysis

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Medical and Public Health experts are not expert in this type of analysis.^{18,19} Health resources are finite. We all take health risks to ensure a better future for ourselves, family, children, and society. "Wellbeing of the population is the ultimate goal of government."^{145,146} To compare outcomes of policies we need a common single metric of measurement to weigh trade-offs and make rational decisions. The goal is to maximize the sum of years lived by the population,⁵² weighted by the health quality of those years [i.e., Quality Adjusted Life Years, QALY] or the wellbeing quality of those years [i.e., Wellbeing Years, WELLBY]. The QALY misses some important things that are valued by individuals, including joy, status, and things that give fulfillment like jobs. The WELLBY measures the value of anything that makes life enjoyable, and captures almost everything that is important to people. It is measured by life satisfaction, asking "overall, how satisfied are you with your life nowadays?" and rated on a Likert Scale from 0 ["not at all"] to 10 ["completely"]; the usual healthy level is '8', and those indifferent between living on or not at all score '2' – 1 regular year of happy life (1 QALY) is worth 6 WELLBY.^{145,146} Despite some limitations, cost and benefit should be measured in terms of human welfare in the form of length, quality, and wellbeing of lives, and "to make no assessment is just to make policy in a vacuum."¹⁴⁷

First, consider the benefits of lockdown, preventing COVID-19 deaths. Using the age distribution of deaths and comorbidities, in the UK the average person who died due to COVID-19 had 3-5 healthy years left to live; that is, 3-5 QALY, or 18-30 WELLBY.^{95,144,147} This number was even lower in Italy.¹⁴⁴ We can calculate that lockdowns 'saved': 50% infected to herd immunity X 0.3% IFR X 7.8 Billion people X 5 QALY lost per death = 11.7 million deaths, 58.5 million QALY, or 360 million WELLBY. The number is likely much lower than this for several reasons: it is likely <40% to herd immunity, the IFR is likely <0.24%, some deaths would occur even with lockdowns [that might prevent at most 70% of deaths; in Sweden it was estimated lockdown could have prevented one-third of deaths],¹⁴⁸ with focus on retirement and nursing homes we might avoid many of the excess deaths, and we cannot stay locked down forever [if no 'exit strategy' exists, then lockdown is not really a 'strategy'¹⁰]. A more realistic number is at least 2X lower, well fewer than 5.2 million deaths 'saved'. It is also worth mentioning that the efficacy of lockdown has been questioned in several studies, reducing the benefit of lockdown potentially markedly further (ETable 3, see Additional file 1).¹⁴⁹⁻¹⁵⁵

Second, consider the costs of lockdown.^{144,156-158} An important point must be made here. We are not comparing COVID-19 deaths vs. economy as prosperity. Rather, it is COVID-19 deaths vs. recession deaths – it's lives versus lives, as the economy is about lives. "It's horrible either way... [we're] advocating for the least people to die as possible."¹⁵⁹

Expected costs of the recession in lives can be calculated based on two methods. One uses historical evidence of a strong long-run relation between government spending [economic development] and life expectancy.^{144,156-158} Government expenditures on healthcare, education, roads, sanitation, housing, nutrition, vaccines, safety, social security nets, clean energy, and other services determines the population wellbeing and life-expectancy.¹⁴⁴ If the public system is forced to spend less money on our children's future, there are statistical lives lost [people will die in the years to come]. The social determinants of health, including conditions of early childhood, education, work, social circumstances of elders, community resilience (transportation, housing, security), and fairness (economic security) determine lifespan.¹⁶⁰ As a general rule, US\$10K/year GDP buys an additional 10 years of life, so in a life of 75 years, US\$750K buys 10 years in life expectancy = US\$75K/QALY.^{144,156-158} This is a maximum cost; in India US\$25K/QALY is appropriate [most effect occurs for vulnerable and marginalized groups].¹⁴⁴ The other method is based on government numbers that are used to estimate how much health and life expenditures buy. Since the lockdown is a government public health policy, "it is saving lives which is what the lockdown was for... we are treating decisions on how to face COVID-19 in the same way as

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decisions... are made about resources to apply to the treatment of cancer, heart disease, dementia, and diabetes.¹⁴⁷ Based on research on how costly it is to save people from illness (how government services maintain health), in the UK it is US\$20K/QALY, and using consumer willingness to pay it is US\$80K/QALY.¹⁴⁴⁻¹⁴⁶ This again is a maximum cost, as this is for Western countries, who are at least 3X wealthier than the average country in the world; you can save a life in poor countries with US\$2-3K, and lives are saved more cheaply with the first few billions spent.^{144,161} It is estimated that in 2020-2021 the world economy will shrink by at least US\$8-9 trillion (about 6% of GDP), and this will take many years to recover (Figure 2).^{144,156,157,162,163} The loss in terms of GDP will be "easily US\$50 trillion over the coming decade",^{144,156} with lockdowns ordering businesses and workplaces to stop functioning, ports closed, business bankruptcies, and resultant disrupted supply and demand chains.^{64,164,165} We can calculate that the recession resulting from lockdowns 'cost': US\$50 trillion X 40% as government expenditure ÷ US\$100K/QALY = 200 million QALY, or 1.2 billion WELLBY. This is an underestimate, and the actual figure is likely at least 12X higher for several reasons: the number US\$100K/QALY was used when it is far less than this for half the world population residing in low-income countries and may be much lower even in high-income countries, and a conservative estimate of world GDP loss during the pandemic was used, particularly if there is another prolonged period of lockdown.

Another cost of lockdown is the loneliness and anxiety effect on individuals. It is estimated that loneliness from isolation costs 0.5 WELLBY/person/year.^{145,146} If lockdowns last for 2 months to 4 billion people, this results in a cost of 333 million WELLBY.¹⁵⁶ The cost is likely far higher, as this assumes only 2 months of lockdown, and does not include the effect of loneliness on life-span (i.e., early mortality) and disease that occurs particularly to young people.¹⁶⁶⁻¹⁷²

The last cost considered here is the effect of unemployment. It is estimated that unemployment costs 0.7 WELLBY/unemployed person/year.^{145,146} Since it is estimated there will be 400 million additional unemployment years due to the lockdowns, the cost is 280 million WELLBY/year.^{156,173} The cost is likely at least 3X higher, as recovery from unemployment will occur over several years, we do not consider the effect on wellbeing to the families of the unemployed, and we do not consider the effect on deaths of despair in young people or on loss of health insurance.

The effects of loneliness and unemployment on life-expectancy are not considered in the costs above, only the loss of life-satisfaction in WELLBYs. Recent literature has summarized the major effect of individual income, social network index (i.e., integration in a social network), and adverse childhood experiences on life-span, early mortality, risk of chronic diseases (including heart disease, diabetes, kidney disease, stroke, cancer, lung disease, Alzheimer's, substance use, depression), and suicide rates.¹⁶⁶⁻¹⁷² Recent financial difficulties, history of unemployment, lower life satisfaction, and history of food insecurity are associated with mortality in the United States.¹⁶⁷ Actual or perceived social isolation is one of the top 3 risk factors for death due to cardiovascular disease, increases risk of death in the next decade by 25-30%, and "risks creating cohorts of individuals who are less socially functional."^{168,174} Unemployment is associated with a mean adjusted hazard ratio for mortality of 1.63.¹⁷⁵ Life stress is associated with development and exacerbation of asthma, rheumatoid arthritis, anxiety disorders, depression, cardiovascular disease, chronic pain, HIV/AIDS, stroke, certain types of cancer, and premature mortality.¹⁷⁶ Especially concerning are the effects on children during "the early years" of life, increasingly recognized as the period of greatest vulnerability to, and greatest return on investment from, preventing adverse long-term outcomes that can have lasting and profound impacts on future quality of life, education, earning potential, lifespan, and healthcare utilization.¹⁶⁹⁻¹⁷² The early years of life are a critical period when a child's brain develops from social interaction and experiences, thus providing the foundation for their entire future life potential. During the pandemic children are being

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exposed to increased intimate partner violence, family financial crises, disrupted education, an increasing achievement gap (i.e., low-income families who do not have access to computer, internet, space, food, and parental support cannot participate in online learning), loneliness, physical inactivity, lack of support services (e.g., school lunches, access to early childhood services and aids for those with disability), etc.^{87,88,104,107,177-179} These adverse childhood experiences have permanent impacts that cannot be compensated for by later improvements in social situations.

The cost-benefit analysis is shown in Table 6, finding on balance the lockdowns cost a minimum of 5X more WELLBY than they save, and more realistically, cost 50-87X more. Importantly, this cost does *not* include the collateral damage discussed above [from disrupted healthcare services, disrupted education, famine, social unrest, violence, and suicide] nor the major effect of loneliness and unemployment on lifespan and disease. Frijters and Krekel have estimated that “the [infection] fatality rate should be about 7.8% to break-even and make a radical containment and eradication policy worthwhile, presuming that would actually eliminate the disease.”¹⁸⁰ A similar cost-benefit analysis for Canada is shown in ETable 4 (see Additional file 1), with the cost at least 10X higher for lockdowns than the benefit. A different analysis for Australia is shown in Table 7, estimating the minimum cost is 6.6X higher than the benefit of lockdown.^{181,182} Another cost-benefit analysis for the UK used National Institute for Health and Care Excellence guidelines for resource decisions, that 1 QALY should cost no more than US\$38.4K. Assuming lockdown could save up to 440K people [although more likely at most: 66.65 million population X 40% to herd immunity X 0.24% IFR = 64K people] of 5 QALY each, and a minimum GDP loss of 9% [i.e., assuming lost output comes back quickly, and not including any health costs of unemployment or disrupted education], “the economic costs of the lockdown... is far larger than annual total expenditure on the UK national health service... the benefits of that level of resources applied to health... would be expected to generate far more lives saved than is plausibly attributable to the lockdown in the UK... The cost per QALY saved of the lockdown looks to be far in excess... (often by a factor of 10 and more) of that considered acceptable for health treatments in the UK.”¹⁴⁷ The authors estimated the benefit of easing restrictions for over the next 3 months outweighs the cost by 7.3-14.6X.¹⁴⁷ “A cost-benefit analysis of 5 extra days at COVID-19 alert level 4” for New Zealand found that the cost in QALY was 94.9X higher than the benefit.¹⁸³ Finally, a cost-benefit analysis for the US is shown in Table 8, finding the cost of lockdown would be at least 5.2X the benefit.^{184,185}

4.3 Objection: the economic recession would happen without lockdown

This is unlikely, particularly if the fear is appropriately controlled with clear communication on risk, numbers with denominators and context, and important trade-offs, as this information becomes available. The resources and attention should be directed towards protecting the most vulnerable (i.e., the elderly). The evidence for policy impact on total human welfare should be based on a wide range of expertise, including economists, and not only health experts. The CIDRAP group published suggestions for communication during a crisis, which included advice to not over-reassure (i.e., be realistic about the course post-lockdown – cases and deaths will climb), to express uncertainty (i.e., explain the difficult dilemmas and trade-offs, and why we choose which course; explain that the initial reaction was temporary, buying time to figure out next steps); to validate emotions (i.e., admit waves of disease will occur and there may be economic devastation); and to admit and apologize for errors (i.e., we must resurrect a devastated economy in order to save lives).¹⁸⁶

The severity of mandated lockdowns was directly linked with the severity of the economic collapse.^{147,181,187-191} These were direct commands to halt work, restrict travel, restrict the number of people inside dwellings, close factory floors, stay at home, etc. Economic activity, GDP loss, and

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unemployment were temporally, within weeks, related to lockdown orders.¹⁸¹ There was a dramatic decline in employment, consumer spending, and economic outcomes largely accounted for by different degrees of restrictions in different countries.^{181,188,189} The consensus, for example by the Bank of England, the Reserve Bank of Australia, the Organization for Economic Co-operation and Development, the International Monetary Fund (e.g., the “calamitous Great Lockdown”), and the Chief Medical Officer of Health in Canada (e.g., “the extensive slowdown in the Canadian economy as a result of public health emergency measures” on p. 29), is that the economic recession is a result of the lockdowns.^{45,117,190,191,192}

4.4 Objection: consider the ‘long-haulers’

The long-term effects of COVID-19 illness need to be studied and clarified. Much of the current information is based on anecdotes (i.e., single cases) in the press. It may be expected that survivors of ARDS due to COVID-19 will have significant quality of life sequelae similar to ICU survivors from other causes of ARDS, or even lower given the lower cytokine levels in COVID-19.^{193,194} It may also be expected that some survivors of COVID-19 that did not require hospitalization will have significant lingering symptoms for months similar to what occurs with other causes of community acquired pneumonia.¹⁹⁵ The few studies reported to date do not well quantify the severity and duration of long-term symptoms such as fatigue, breathlessness, ‘foggy thinking’, etc., making it difficult to interpret the impact on cost-benefit analyses.¹⁹⁶⁻²⁰⁰ The highest rates of ‘long-COVID-19’ are from crowdsourced online data where there is likely a strong selection bias in participation.²⁰¹⁻²⁰³ In addition, most of these reports do not compare to contemporary controls during the pandemic, controls who are often experiencing social isolation, unemployment, and loneliness. For example, one survey of people without COVID-19 in the United States found a high prevalence of anxiety (25.5%), depressive (24.3%), and trauma and stressor related (26.3%) disorders, with 13.3% who started or increased substance use to cope, and 10.7% who seriously contemplated suicide in the last 30 days.²⁰⁴ The Household Pulse Survey in the US found that in 2019 11% of adults had symptoms of anxiety or depressive disorder, while in April-August 2020 35-40% did.²⁰⁵ Another survey in US adults found the prevalence of depression symptoms was more than 3-fold higher during COVID-19 than before, and worse for those with lower social and economic resources.²⁰⁶ A survey in Australia found worse exercise (47.1%), mental wellbeing (41%), weight gain (38.9%), screen time (40-50%), and life satisfaction (down by an average of 13.9%) during the pandemic.²⁰⁷ In Canada, 57% of children 15-17 years old reported their mental health was “somewhat worse” or “much worse” than it was prior to physical distancing measures during the pandemic, and Canadians ≥ 15 years old had a 23% decrease in reported “excellent or very good self-perceived mental health”.^{177,208} Although there will likely be many ‘long-haulers’, the incidence, severity, and duration of long-term symptoms would need to be very high to change the cost-benefit balance. Given that at a generous minimum the cost-benefit balance is at least 5X against lockdowns, the sequelae of COVID-19 would need to cost well over 200 million QALY worldwide, and likely >10X that number, to make the cost-benefit analysis in need of reconsideration.

4.5 Objection: Low-income countries are particularly susceptible and need protection

The Imperial College COVID-19 Response Team modeled the effect on low-income countries.²⁰⁹ These countries were hypothesized to be more susceptible to COVID-19 deaths, even with markedly lower population over age 65 years (about 3%), due to several factors: larger size of households [i.e., more homogeneous contact patterns], far fewer hospital and ICU beds, lower quality of health care, and unique co-morbidities [e.g., HIV in >1%, tuberculosis in >25%, and malnutrition in >30% of the population].²⁰⁹ For suppression to have benefit, it was estimated to need to be in force 77% of the time [compared to 66% in high-income countries] over the 18 months of modeling [and “well beyond the



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time window of our simulations”].²⁰⁹ However, modeling inputs were overestimated, with >90% of the population infected, and baseline IFR at in high-income countries 1.03%. Moreover, low-income countries are more vulnerable to lockdown adverse effects for several reasons: lower ability to work from home, more household based transmission (when confined to home), economic vulnerability [a higher degree of informal labor markets, and marginal capacity to provide support for ensuring livelihoods], slower build-up of herd immunity [given limited health care capacity], little testing capacity, wider health risks from diverting all attention to a single disease, and future health system failure once suppression measures are lifted (also see Table 1).^{209,210} The effects of a recession on government spending is magnified when this spending was already insufficient to improve the social determinants of health. In India, the desperation is leading to an increase in child trafficking.²¹¹ Surveys in Africa indicate a very low IFR; for example, in Kenyan blood donors 5% were seropositive yet the country reported only 100 deaths, in Bantyre, Malawi, a serosurvey found 12.3% of healthcare workers were seropositive yet only 17 deaths were reported, and in two cities in Mozambique seropositivity was 3% and 10% yet only 16 deaths were reported.²¹² It is extremely likely the cost-benefit analysis is even more against lockdown in low-income countries for these reasons.

5. Discussion:

5.1 What to do now: change the trolley track

5.1.1 Other calls for a change in response priorities

Several other groups and individuals have made calls for a change in COVID-19 response priorities (Table 9).²¹³⁻²²⁰ In an open letter on July 6, 2020, to the Prime Minister and Premiers of Canada signed by many former deputy ministers of health, chief public health officers, and medical deans, the authors called for “A Balanced Response.”²¹³ They write that the current approach “carries significant risks to overall population health and threatens to increase inequalities... Aiming to prevent or contain every case of COVID-19 is simply no longer sustainable...”²¹³ In an open letter to the National Cabinet in Australia signed by many economists and medical experts with the Australian Institute for Progress, the authors make similar points.²¹⁴ They write that “to analyze the COVID-19 effect it is necessary to understand it as shortening life. But the lockdowns and the panic have also had a cost in shortening life for others.”²¹⁴ Ioannidis called for evidence to guide policy, noting many of the collateral and recession effects discussed above.²¹⁵⁻²¹⁹ “Shutdowns are an extreme measure. We know very well that they cause tremendous harm.”²¹⁶ A resignation letter by an economist in the Australian Treasury wrote that “the pandemic policies being pursued in Australia... are having hugely adverse economic, social and health effects... The need for good policy process does not disappear just because we face a public health crisis...”²²⁰ The “Great Barrington Declaration” written on October 4, 2020, by infectious disease epidemiologists and public health scientists recommends “Focused Protection.”²²¹ The declaration writes that “current lockdown policies are producing devastating effects on short and long-term public health... leading to greater excess mortality in years to come...”²²¹

A caveat to quoting these open letters is that “petitions cannot and should not be used to prove that the positions of the signatories are scientifically correct,” as this would be based on the fallacies of ‘argument ad populum’ and ‘invoking authority’, and have other drawbacks.²²² These open letters are used only to show that many have expressed views similar to those expressed here, and this might open the door to serious consideration of the empirical evidence and arguments presented above.

5.1.2 Objection: Herd Immunity Is a Dangerous Idea

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There are several objections that have been made to the idea of opening up society to achieve natural herd immunity.²²³⁻²²⁶

First, an objection is that natural herd immunity assumes the immunity is long lasting, and this may not be the case.²²³⁻²²⁶ If immunity is short-lived, then COVID-19 may become an endemic and likely yearly viral infection as predicted by Kissler.² In the event of short-lived immunity it will still be important to achieve natural herd immunity to protect the high-risk groups (i.e., the elderly) now and yearly (until a vaccine is widely available) without recurrent and prolonged lockdowns that devastate the economy and thus population life-expectancy and wellbeing. Notably, if immunity is not long-lasting this will be a problem for possible vaccine induced herd immunity as well, as the world population will need vaccines to be produced and delivered everywhere at least each year.

Second, another objection is that the costs in deaths, mental and physical health and suffering, socioeconomic inequities, and harming the economy will be too high.^{223,224} This objection ignores the discussion above of the trade-offs involved that include not only COVID-19 direct effects, but also indirect effects of the response to COVID-19, the collateral damage and cost-benefit analysis where it was shown that the costs of all these effects is in fact much higher with lockdowns.

Third is the objection that uncontrolled transmission in younger people would inevitably result in infections in high-risk groups with high mortality.²²³⁻²²⁶ The ability to successfully shield continuing care facilities and hospitals from COVID-19 is questioned.^{223,224} Prolonged isolation of high-risk groups is said to be "unethical".²²³ The objection is odd, as if we cannot protect those in nursing homes nor hospitals, why are we using personal protective equipment at all? In addition, prolonged isolation of *all* groups is what has occurred now, and based on the cost-benefit analysis this is what is unethical by causing far more harm to all, including the high-risk elderly. Of course, infection *can* still spread to high-mortality populations; however, the goal is to reduce this risk. Moreover, <10% of the population is at high-risk, accounting for >90% of potential deaths; surely we can focus on protecting this subgroup of people.²¹⁹ Monitoring in Europe shows that despite increasing COVID-19 cases, excess mortality has only shown a slight increase, suggesting protection of the most vulnerable may be feasible.²²⁷ Modelling has also suggested that social distancing of those over 70 years of age would prevent more deaths than a fixed duration of social distancing of the entire population.²²⁸

Fourth is the objection that healthcare systems will be overwhelmed by uncontrolled spread.^{223,224} This is a worrisome possibility, as health-care providers may be forced to make painful rationing decisions. If a healthcare system is overwhelmed, the effects would have to be extreme to make the benefit of lockdowns to save ICU capacity comparable to the long-term costs. There are several ways to minimize this possibility, including a focus on protecting those at high-risk (see below), information dissemination to cause fast awareness of voluntary sensible self-imposed use of handwashing and (in crowded areas) masks,^{229,230} limiting very large gatherings, and expanding critical care capacity when necessary. Forecasting of healthcare capacity needs in the short or medium term, even when built directly on data and for next day predictions, has consistently failed, and most healthcare systems were not overwhelmed despite sometimes being stressed with high peaks of cases.^{219,231} Forecasting failure led to elderly patients being discharged to nursing homes (where there was high mortality), and largely empty wards (unnecessarily affecting hospital utilization for other serious conditions); in Canada "overall ICU occupancy rates did not exceed 65% (p. 12)".^{45,219} Lockdowns in anticipation of forecast healthcare incapacity should not be done, especially if based on forecasting that is not released for public scrutiny nor repeatedly fit to real-time data to verify accuracy. In addition, if there are insufficient ICU beds for



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the population due to underfunding, the effects of the recession on government healthcare spending in the future will markedly adversely worsen this situation in the long-term.

Fifth is the objection that natural herd immunity is not achievable.²²³⁻²²⁶ This is based on the few case reports of re-infection, the Brazilian city of Manaus where seroprevalence was up to 66% yet there is currently a resurgence of COVID-19 cases, and the claim that natural herd-immunity has never occurred. The seven published case reports of re-infection, four with symptoms [one requiring hospitalization, and one death in an immunocompromised 89 year old with few details reported], when 10% of the world population has likely been infected over the past 10 months cannot yet provide evidence that severe reinfection and contagion is at all common.²³²⁻²³⁷ Regarding Manaus, the high seroprevalence likely reflected the special situation of a relatively homogeneous cohort of people in overcrowded low socioeconomic urban situations, with reliance on crowded long riverboat travel; now there seems to be a different demographic cohort of young wealthy individuals being exposed.²³⁸⁻²⁴⁰ In addition, the peak seroprevalence in blood donors in Manaus was 51.8% in June, while another study of household seroprevalence in Manaus on May 14-21 found this to be 12.7% [the respective numbers for Sao Paulo were closer, at 6.9% and 3.3% in the two serosurveys].^{240,241} Even correcting for a possible lower sensitivity of capillary blood used in the household survey does not explain the difference, as the corrected seroprevalence might be up to 19.3%.²⁴² Regarding historical natural herd-immunity, it is likely that this was achieved for several infections, with outbreaks that occurred as births added sufficient numbers of new susceptible young individuals (e.g., for Measles, Mumps, Rubella).

Finally, an important point to emphasize is that the information in this review does *not* depend on natural herd immunity being achieved. The collateral damage, and the cost-benefit analysis showed that lockdowns are far more harmful than a risk-tailored population specific response. "Public health is the science and action of promoting health, preventing disease, and prolonging life... ensuring that Canadians can live healthy and happier lives (p. 59-60);"⁴⁵ some suggestions for how to do this is discussed below.

5.1.3 Some suggestions: What can we do?

5.1.3.1. Focus on protecting those at high risk: A risk-tailored, population-specific response.²⁴³ This starts with better public understanding of the risks and trade-offs involved.¹⁸⁶ Protection should focus on high-risk groups: those hospitalized [e.g., prevent nosocomial infection],²¹⁶ in nursing homes [e.g., staff work in only one facility, adequate personal protective equipment supply, more staff, equitable pay],²⁴⁴ prisons, homeless shelters, and certain demographics [e.g., age ≥70 years, those with multiple severe co-morbidities].²⁴³ There should be investment in improving the social determinants of health [e.g., "invest in strategies that address health inequities and better serve the elderly, people experiencing homelessness, and those living with limited means"²⁴³].^{45,160,245} Don't lock everyone down, regardless of their individual risk, as this will cause more harm than benefit.²¹⁶ It is not true that "no one is protected until everyone is protected."⁴⁵

5.1.3.2. Open schools for children:^{87,246} School provides essential educational, social, and developmental benefits to children.²⁴⁷ Children have very low morbidity and mortality from COVID-19,¹⁷⁴ and, especially those ≤10 years old, are less likely to be infected by SARS-CoV-2^{57,249-251} and have a low likelihood to be the source of transmission of SARS-CoV-2.^{178,252} Children account for 1.9% of confirmed cases worldwide.²⁴⁸ School closures don't seem to have an impact on community outbreaks.^{178,253} Modelling predicted that school and university closures and isolation of younger people would increase the total number of deaths [postponed to a second and subsequent waves].²²⁸ Modelling also predicted that

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school closures alone would prevent only 2-4% of deaths.²⁵⁴ We need to educate parents and teachers regarding their low risk, and focus teachers with greater vulnerability due to age or multiple co-morbidity on remote learning. Until schools open, education is lacking especially for those with the fewest opportunities, worsening social disparities that education systems are intended to level. Similarly, allow visitation in children's hospitals and pediatric long-term care facilities, where the risk even with co-morbidities is so low as to not warrant the tragedy of sacrificing our most vulnerable in the false hope of protecting them.^{43,48,49,178}

5.1.3.3. Build back better: Maybe we have learned that the "government can intervene decisively once the scale of an emergency is [or seems] clear and public support is present."²⁵⁵ Maybe we can "recalibrate our sense of omnipotence seeing the ability of 'natural' forces to shock the global economy."²⁵⁵ Maybe we can tip "energy and industrial systems towards newer, cleaner, and ultimately cheaper modes of production that become impossible to outcompete."²⁵⁵ This would involve investment in clean technologies [e.g., renewable energy, green construction, natural capital, carbon capture and storage technologies], and conditional [on measurable transition] bailouts. This is because climate change, like the COVID-19 response, will involve market failures, externalities, international cooperation, and political leadership: the devastation is just in slow motion and far graver. The aggregate fiscal stimuli aimed at alleviating the consequences of the COVID-19 crisis for 149 countries amount to US\$12.2 trillion.²⁵⁶ Climate experts have estimated that "the additional investment needed to shift low-carbon energy investment onto a Paris-compatible pathway thus amounts to about US\$300 billion per year globally over the coming 5 years... 12% [of total pledged stimulus to date] when considered over the entire 2020-2024 period..."²⁵⁶ Moreover, "subtracting divestments from high-carbon fossil fuels... indicates that the overall increase in net annual investments to achieve an ambitious low-carbon transformation in the energy sector are notably small... 1% [of the total announced stimulus to date] over the 2020-2024 period."²⁵⁶ A green recovery may be a driver of employment, spur innovation and diffusion of technologies, reduce stranded assets, and result in a more sustainable and resilient society.^{117,256}

5.2. Some Research Priorities

More information will help to optimize responses to the pandemic. This particularly applies to possible prevention, prophylaxis, and treatment of COVID-19. How effective cloth masks are at preventing infection, or at reducing severity of infection needs more study.^{257,258} The safety, efficacy, and durability of protection from vaccines, particularly in high-risk groups, must be determined in large Phase III randomized controlled trials.²⁵⁹ Novel treatments are in clinical trials, with dexamethasone having benefit on mortality in those with severe COVID-19 requiring oxygen treatment.²⁶⁰ Research is also required to determine the frequency and severity of reinfections.²⁶¹ The frequency, duration, and severity of 'long-COVID' requires better study. The impact of influenza on COVID-19 morbidity and mortality requires study, as both viruses may compete for the same susceptible individuals.²⁶¹ Importantly, research on "the impending authoritarian pandemic... [the] toll being inflicted on democracy, civil liberties, fundamental freedoms, [and] healthcare ethics..." (e.g., due to those responses that were not strictly necessary nor proportionate, largely copied from the "authoritarian example of others") is required to prevent regression and "erosion of rights-protective democratic ideals and institutions"²⁶² across the globe.²⁶²⁻²⁶⁴

6. Conclusion

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“The destruction of lives and livelihoods in the name of survival will haunt us for decades.”¹⁰ The decisions we made entailed “trade-offs that cannot be wished away.”¹⁰ The most affected by the pandemic response are “the poor, the marginalized, and the vulnerable,” while we in high-income countries have shifted “negative effects... to places where they are less visible and presumably less serious.”¹⁰ We must open up society to save many more lives than we can by attempting to avoid every case (or even most cases) of COVID-19. It is past time to take an effortful pause, calibrate our response to the true risk, make rational cost-benefit analyses of the trade-offs, and end the lockdown groupthink.

Abbreviations

COVID-19: Coronavirus Disease 2019

GDP: Gross Domestic Product

IFR: Infection Fatality Rate

ICU: Intensive Care Unit

NPI: Non-pharmaceutical Intervention

QALY: Quality Adjusted Life Years

SARS-CoV-2: Severe Acute Respiratory Syndrome Coronavirus 2

UK: United Kingdom

US: United States

WELLBY: Wellbeing Adjusted Life Years

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Declarations

Ethics approval and consent to participate: Not applicable

Consent for publication: Not applicable

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Figure Titles and Legends

Figure 1(A). The Trolley Dilemma using numbers compatible with the Corona Dilemma.

Legend: Modified with permission from Frijters P, reference 144.

Figure 1(B). The Corona Dilemma choices explicitly explained.

Legend: Modified with permission from Frijters P, reference 144.

Figure 2. Explanation of how acute GDP loss of 6-7% will accumulate over the decade to a loss of at least US\$50 trillion.

Legend: Reproduced with permission from Frijters P [Personal Communication].

Additional Files

Additional file 1.pdf

Title: ETables

ETable 1. Total and COVID-19 deaths in the USA, as of August 22, 2020

ETable 2. COVID-19 deaths in Canada as of August 30, 2020 compared to deaths in 2018.

ETable 3. Studies suggesting that the efficacy of nonpharmaceutical interventions to prevent spread of COVID-19 are not as high as some predicted.

ETable 4. Cost-benefit analysis in WELLBYs for Canada's response to COVID-19.

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Table 1. Initial modeling predictions that induced fear and crowd-effects

Reference	Statements and Predictions from the modeling
Kissler et al. ²⁻⁴	“prolonged or intermittent social distancing may be necessary into 2022 [to avoid overwhelming critical care capacity]... expanded critical care capacity... would improve the success of intermittent distancing and hasten the acquisition of herd immunity”
	“projected that recurrent wintertime outbreaks of SARS-CoV-2 will probably occur after the initial, most severe pandemic wave [if immunity wanes over 40 weeks]”
	With a baseline reproductive number (Ro) 2.5, no seasonality to viral transmission, and the current intensive care capacity of the USA they projected the need for intermittent lockdowns occurring for a total of 75% of the time, even after July 2022.
Imperial College modeling of non-pharmaceutical interventions in USA and UK ⁵	“suppression [effective reproductive number (Re)<1] will minimally require a combination of social distancing of the entire population, home isolation of cases and household quarantine of their family members. This may need to be supplemented by school and university closures... [and] Will need to be maintained until a vaccine becomes available.”
	“we show that intermittent social distancing – triggered by trends in disease surveillance – may allow interventions to be relaxed temporarily in relative short time windows....[Suppression] needs to be in force for the majority [>2/3 of the time] of the 2 years of the simulation.”
	The modeling assumed an IFR of 0.9%, hospitalization rate of 4.4%, and that 81% of the population would be infected before herd immunity, resulting in 510,000 deaths in Great Britain and 2.2 million deaths in the United States by mid-April, surpassing ICU demand by 30X, if lockdowns did not occur.
Imperial College modeling of non-pharmaceutical interventions globally ⁶	“we estimate that in the absence of interventions, COVID-19 would have resulted in 7.0 billion infections and 40 million deaths globally this year... healthcare demand can only be kept within manageable levels through the rapid adoption of public health measures... to suppress transmission... sustained, then 38.7 million lives could be saved.”
	“[Suppression] will need to be maintained in some manner until vaccines or effective treatments become available.”
Imperial College estimate of lives saved so far in Europe ⁷	Used a “model [that] calculates backwards [infections] from observed deaths... [and] relies on fixed estimates of some epidemiological parameters [Ro 3.8; attack rates in different age groups from 60-99%; infection fatality rate in different countries of 0.91-1.26%]....”
	Concluded that “we find, across 11 countries [in Europe], since the beginning of the epidemic [to May 4], 3,100,000 (2,800,000 – 3,500,000) deaths have been averted due to [NPI] interventions....”
Hsiang et al. ⁸	In 5 countries [China, South Korea, Iran, France, US], using “reduced-form economic methods”, NPIs “prevented or delayed [to April 6] on the order of 62 million confirmed cases, corresponding to averting roughly 530 million total infections... we estimate that all policies combined slowed the average growth rate of infections [from 43%/day, a doubling time ~2 days] by -0.252 per day....”

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Table 2. Some effects of the COVID-19 response that put Sustainable Development Goals out of reach.

Sustainable Development Goal	Effect of COVID-19 Response: some details
Childhood vaccination	Programs stalled in 70 countries [Measles, Diphtheria, Cholera, Polio]
Education	School closures: 90% of students (1.57 Billion) kept out of school <u>-Early primary grades are most vulnerable, with effects into adulthood:</u> effects on outcomes of intelligence, teen pregnancy, illicit drug use, graduation rates, employment rates and earnings, arrest rates, hypertension, diabetes mellites, depression <u>-Not just education affected:</u> school closures have effects on food insecurity, loss of a place of safety, less physical activity, lost social interactions, lost support services for developmental difficulties, economic effects on families
Sexual and reproductive health services	Lack of access: estimated ~2.7 Million extra unsafe abortions For every 3 months of lockdown: estimated 2 Million more lack access to contraception, and over 6 months, 7 Million additional unintended pregnancies
Food security	Hunger pandemic: undernourished estimated to increase 83-132 Million (>225,000/day; an 82% increase) - <u>from disrupted food supply chains</u> [labor mobility, food transport, planting seasons] and access to food [loss of jobs and incomes, price increases]
End poverty	Extreme poverty (living on <US\$1.90/day): estimated to increase >70 Million - <u>Lost "ladders of opportunity"</u> and social determinants of health
Reduce maternal and U5M	Estimated increase of 1.16 Million children (U5M) and 56,700 maternal deaths, if essential RMNCH services are disrupted (coverage reduction 39-52%) for 6 months in 118 LMIC - <u>mostly (~60%) due to affected childhood interventions</u> [wasting, antibiotics, ORS for diarrhea]; and childbirth interventions [uterotonics, antibiotics, anticonvulsants, clean birth]
Infectious Disease Mortality	Tuberculosis: in moderate and severe scenario, projected excess deaths (mostly from reduced timely diagnosis and treatment) 342,000-1.36 Million over 5 years (an increase of 4-16%) Malaria: in moderate and severe scenario, projected excess deaths (mostly from delayed net campaigns and treatment) 203,000 to 415,000 over 1 year (an increase of 52-107%, with most deaths in children <5yo). HIV: in moderate projected excess deaths (mostly due to access to antiretrovirals) 296,000 (range 229,000-420,000) in Sub-Saharan Africa over 1 year (an increase of 63%). Also would increase mother to child transmission by 1.6 times.

LMIC: low- and middle-income countries; ORS: oral rehydration solution; RMNCH: Reproductive Maternal Newborn and Child Health; U5M: under 5 mortality.

References: 78-93

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Table 3. Some effects of the COVID-19 response on public health in mostly high-income countries.

Effect of COVID-19 Response	Some Details
Delayed/avoided/disrupted medical care	<p>Visits to emergency departments for myocardial infarction or stroke declined in USA by $\geq 20-48\%$</p> <p>Delayed cancer care and 'non-urgent' procedures</p> <ul style="list-style-type: none"> -weekly presentations with cancer diagnoses down 46% in USA and UK -90% reduction in non-cancer surgeries in Ontario in March/April -surgery backlog in Ontario March 15 to June 13: 148,000; clearance time estimated to take 84 weeks -in Canada at least \$1.3 billion additional funding is required to return to pre-pandemic wait times for six procedures (CABG, cataract surgeries, hip and knee replacements, MRI and CT scans) within 1 year <p>Of excess deaths in high-income countries during pandemic, 20-50% are <i>not</i> from COVID-19</p> <p>Unexplained 83% increase (10,000 excess) deaths from dementia in England/Wales in April [lack of social contact causing a deterioration in health and wellbeing]</p>
Violence against women [household stress; disrupted livelihoods, social/protective networks, support services]	<p>Intimate Partner Violence: estimated effect from 3 months lockdown is 20% increase [>15 Million additional cases]</p> <p>Female Genital Mutilation: 2 Million more cases over next decade</p> <p>Child Marriages: 13 Million more cases over next decade</p> <p>Increased police reports [France, UK, Ontario] and support line calls [China, Italy, Spain, Vancouver, Alberta] by 20-50%</p>
Deaths of despair [related to unemployment, and due to drugs, alcohol, and suicide]	<p>In USA alone: 68,000 (from 27,000 – 154,000) suicide deaths predicted</p> <p>Mental Health effects of 3 months [suicide, depression, alcohol use disorder, childhood trauma due to domestic violence, changes in marital status, social isolation]: Years of Life Lost in USA 67.58 Million, Canada 7.79 Million, UK 13.62 Million, etc.</p> <p>Surge in Canada in opioid deaths (by 40-50%), alcohol consumption (by 19%), cannabis use (by 8%), tobacco smoking (by 4%), and suicidal thoughts.</p>

References: 97-119

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Table 4. World mortality data 2019, with COVID-19 mortality to Sept 4 in 2020 for comparison.

Region	Annual deaths in thousands (per day)	Infant mortality Rate/1000	Under 5yo mortality Rate/1000 (% of deaths)	Age 15-60 mortality Rate/1000 (% of deaths)	Age 65+ (% of deaths)
World	58,394 (160)	28	38 (10%)	140 (32%)	(57%)
COVID-19 on Sept 4, 2020	865 (3.5)	(0%)	(0.06%)	(26%)	(74%)
High-income	11,161	4	5 (1%)	81 (19%)	(80%)
Middle-income	41,551	27	35 (9%)	144 (36%)	(55%)
Low-income	5,665	46	68 (31%)	234 (42%)	(27%)
Sub-Saharan Africa	9,052	49	74 (31%)	281 (46%)	(23%)
Canada	291	4	5 (1%)	62 (17%)	(82%)

References: 127,128. Effect of COVID-19 is in bold for emphasis.

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Table 5. Selected causes of death in the world, with deaths per year and day, compared to COVID-19 in 2020.

Cause of death	Deaths/year (/day)	Case Fatality Rate	Age Group predominant
COVID-19 on Sept 4, 2020	864,618 (3500)	0.24%	≥65-70 years old
Malaria	405,000 (1110)	0.2%	Children
Tuberculosis	1,500,000 (4110)	<15%	-
Measles	140,000 (384)	1.46%	Children
Influenza	389,213 (range 294-518K) ^a	0.01-0.02% for pH1N1	Children 34,800 [13-97K], and ≥65 years old. Respiratory deaths only
HIV	690,000 (1890)	-	Access to treatment for 67%
Motor Vehicle Collisions	1,350,000 (3699)	-	Young 5-29 years old, mostly in Low- to Middle-Income Countries
Tobacco	>8,000,000 (21918)	-	-
Childhood (U5M) pneumonia	808,920 (2216)	-	<5 years old
Childhood (U5M) diarrhea	533,768 (1462)	0.08% U5M	<5 years old
Dietary risk factors	11,000,000 (30137)	-	-

a. The 1957-1959 Influenza pandemic, when the world population was 2.87 billion, was estimated to cause 4 deaths/10,000 population totaling 1.1 million excess deaths due to respiratory disease, with the greatest excess mortality in school-aged children and young adults. If COVID-19 is of similar severity, given the world population of 7.8 billion, we would expect ~3 Million deaths, mostly in the elderly.¹⁴³

K: thousands; U5M: under 5 mortality. Effect of COVID-19 in bold for emphasis. References: 131-143

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Table 6. Cost-Benefit analysis in WELLBYs for the world's response to COVID-19

Factor in World	Benefit	Cost
COVID-19 deaths	360M WELLBY	-
Recession	-	1.2B WELLBY
Unemployment	-	280M WELLBY
Loneliness	-	333M WELLBY
Disrupted health services, disrupted education, famine, social unrest, violence, suicide	-	Not counted
TOTAL	360M WELLBY	1.813B WELLBY
BALANCE		5X [minimum]-87X [maximum]

B: Billion; M: Million; WELLBY: wellbeing years. See text for details of the calculations.

Maximum: benefit reduced in half; recession effect increased 12X, unemployment effect increased 3X, and still not counting the disruption of health services, education, life-span effects of loneliness, etc.

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Table 7. Cost-benefit analysis in Quality Adjusted Life Years for Australia's response to COVID-19

Consideration	Cost/month	Benefit overall	Comment
Wellbeing (immediate)	83,333 QALY	-	Attributes half of reduction (of 0.5 WELLBY) to lockdown
Reduced economic activity (government services)	25,812 QALY	-	Attributes half of yearly 6% loss in GDP to lockdown, and only government expenditure (not private) buys welfare (36% of GDP), at \$100,000/QALY
Increased suicides	600 QALY	-	Expected to rise 25% over next 5 years, and attributes only 40% of this to lockdown
Disrupted non-university schooling	740 QALY	-	Foregone wages of children: each year of schooling yields approximately 9% more future earnings; assumes 80-90% equivalence of disrupted to normal school days
Disrupted health services, future mental stress and violence	-	-	Not included. Also does not consider bad habits inculcated (reduced physical activity, increased weight gain (for 40%), increased alcohol intake)
Reduced COVID-19 deaths		50,000 QALY	This is for lockdown 'ad infinitum' (not per month); 0.04% of population saved
Total over 3 months of lockdown	331,485 QALY	50,000 QALY	Minimum cost is 6.6X any benefit

QALY: Quality Adjusted Life Years; WELLBY: Wellbeing Years. References: 181,182

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Table 8. A cost-benefit analysis for lockdown in the US, modified from Cutler & Summer.^{184,185}

Factor	Quoted ¹⁸⁴	Revised	Explanation of revision
COST			
GDP loss	\$7.592 Trillion	\$7.592 Trillion ^a	No revision made. Note that, as the US accounts for 15% of world GDP, this translates to the global loss of \$50.6 Trillion (as estimated in Table 6).
Mental Health	0	\$0.8 Trillion	Assuming that 50% of the mental health effect is from lockdowns
BENEFIT			
Deaths avoided	\$4.4 Trillion	\$0.3125 Trillion	Assuming the 625,000 deaths lose 5 QALY each at \$100,000 per QALY. This is better than assuming each death, regardless of age or comorbidity, is the loss of the entire value of a statistical life. This is also how the cost on mental health was calculated.
Health impairment	\$2.6 Trillion	\$0.4875 Trillion	Assuming 35% of quality of life is lost <i>for the remaining years left</i> [likely 15 remaining years of 80 on average in a statistical life].
Mental Health	\$1.6 Trillion	\$0.8 Trillion	Assuming 50% of the mental health effects are due to not having lockdowns to prevent COVID-19 cases.
Cost-benefit balance	Benefit 1.3X Cost	Cost 5.2X Benefit	A minimal estimate: the GDP loss will likely be higher; willingness to pay for QALY is usually <\$100,000/QALY, and NICE uses \$30,000/QALY; not all deaths could be avoided by lockdown; at least 20% of excess deaths are not due to COVID-19 (i.e., are more likely from the response); severe cases (i.e., those that do not need intensive care, and may only need oxygen) likely have lower risk for health impairment of the severity modeled.

a. If the Value of a Statistical Life is accepted as used in the reference at \$7 million, and the US economy will lose \$7.592 Trillion in GDP over the decade, that is equivalent to the loss of 1,084,571 whole (statistical 80-year duration) lives = 86,765,680 years of lost life; that is equivalent to (assuming 5 QALY lost per COVID-19 death) **17,353,136 COVID-19 deaths**.

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Table 9. Other calls for a change in COVID-19 response priorities

Reference	Content of the call for adjusting COVID-19 response priorities
Open letter on July 6, 2020, to the Prime Minister and Premiers of Canada ²¹³	The current approach “carries significant risks to overall population health and threatens to increase inequalities... Aiming to prevent or contain every case of COVID-19 is simply no longer sustainable... We need to accept that COVID-19 will be with us for some time and to find ways to deal with it.”
	The response risks “significantly harming our children, particularly the very young, by affecting their development, with life-long consequences in terms of education, skills development, income and overall health.”
	Suggest that we need “to focus on preventing deaths and serious illness by protecting the vulnerable while enabling society to function and thrive... While there is hope for a vaccine to be developed soon, we must be realistic about the time... We need to accept that there will be cases and outbreaks of COVID-19.”
	“Canadians have developed a fear of COVID-19. Going forward they have to be supported in understanding their true level of risk... while getting on with their lives – back to work, back to school, back to healthy lives and vibrant, active communities....”
	COVID-19 “is not the only nor the most important challenge to the health of people in Canada... The fundamental determinants of health – education, employment, social connection and medical and dental care – must take priority...”
Open letter to National Cabinet of Australia ²¹⁴	“exposure to COVID-19 is only temporarily avoidable”; “to analyze the COVID-19 effect it is necessary to understand it as shortening life. But the lockdowns and the panic have also had a cost in shortening life for others.”
	Some of these costs include that the lockdown: “will decrease national income... and this will have a measurable effect on the length of the average lifespan”, “[has] disrupted normal health services... estimated an increase in cancer deaths over the next 12 months of 20%”, [and will cause] future suicides by the unemployed and others whose lives have been ruined.”
	Urge for “a cost-benefit analysis, including lives saved versus lives lost, both directly and consequentially... [and] weekly or daily non-epidemic death figures should be posted as well as deaths from the epidemic...”
Ioannidis, JPA ^{95,215-219}	Called for evidence to guide policy, noting many of the collateral and recession effects discussed above.
	“Shutdowns are an extreme measure. We know very well that they cause tremendous harm.”
	“the excess deaths from the measures taken is likely to be much larger than the COVID-19 deaths... learning to live with COVID-19 and using effective, precise, least disruptive measures is essential to avoid such disasters and to help minimize the adverse impact of the pandemic” ⁹⁵
	“When major decisions (e.g., draconian lockdowns) are based on forecasts, the harms (in terms of health, economy, and society at large) and the asymmetry of risks need to be approached in a holistic fashion, considering the totality of the evidence.” ²¹⁹

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Resignation letter by economist in Victorian Treasury ²²⁰	<p>“the pandemic policies being pursued in Australia... are having hugely adverse economic, social and health effects... The need for good policy process does not disappear just because we face a public health crisis... the elderly are many times more vulnerable to a serious outcome than the young. It was necessary, therefore, to work out a targeted age-based strategy... The direct and indirect costs imposed by regulatory approaches may not be... immediately obvious. Risk regulation that is poorly targeted or costly will divert resources from other priorities... needed to commission a cost-benefit analysis of alternative policy options....”</p> <p>Governments should have realized “they are hostage to chronic groupthink and actively sought alternative advice... instead of performing its taxpayer-funded duty of providing forthright analysis of alternatives... can (even now) be managed by isolating the elderly and taking a range of voluntary, innovative measures.”</p>
The Great Barrington Declaration ²²¹	<p>“current lockdown policies are producing devastating effects on short and long-term public health... leading to greater excess mortality in years to come... keeping students out of school is a grave injustice... The most compassionate approach that balances the risks and benefits of reaching herd immunity, is to allow those who are at minimal risk of death to live their lives normally to build up immunity to the virus through natural infection, while better protecting those who are at highest risk.”</p>

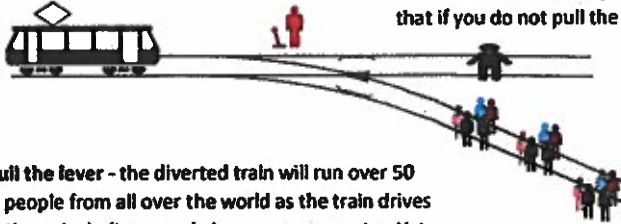


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Figure 1a and 1b

The Corona Dilemma


if you do not divert the train - one person, John, will get run over. He is elderly and suffering from many diseases. You know him personally and all his friends and family are watching you. They are all shouting at you to divert the train, claiming it is the moral and safe thing to do. You know that if you do not pull the lever, your life in the society you live in is over.



if you pull the lever - the diverted train will run over 50 random people from all over the world as the train drives through them, including people in your own country. Yet these people and their friends won't know where the train came from that hit them.

The Corona Dilemma

if you do not divert the train - you are letting the virus rage unchecked (COVID deaths).



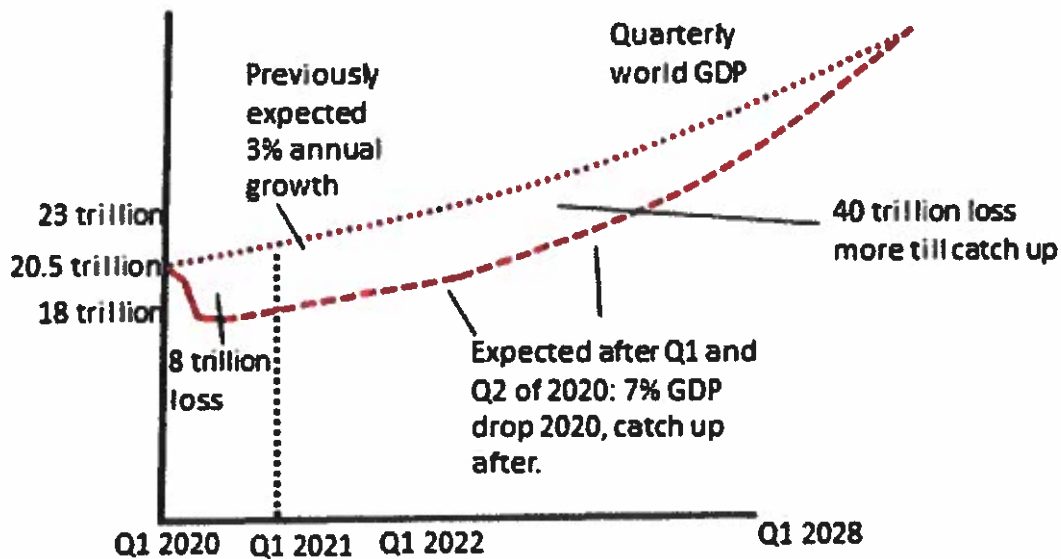
if you pull the lever - the diverted train will put whole countries into isolation, destroying many international industries and thus affecting the livelihood of billions, which through reduced government services and general prosperity will cost tens of millions of lives (COVID reaction).

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Figure 2

Previously projected GDP and later projected GDP: one-year loss versus cumulative loss



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ETable 1. Total and COVID-19 deaths in the USA, as of August 22, 2020.

Age group	COVID deaths in 6 months to Aug 22	Deaths from all causes to Aug 22	COVID as % of deaths in 2020
0-14	57	14679	0.39%
15-24	280	18594	1.51%
25-44	4558	93066	4.90%
45-54	8648	100926	8.57%
55-64	20655	231983	8.90%
65-74	34980	351806	9.94%
75-84	43392	430582	10.08%
85+	51710	537185	9.63%
TOTAL	164280	1778821	9.24%

Assumes all deaths *with* COVID-19 are deaths *from* COVID-19.

Reference: 123

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ETable 2. COVID-19 deaths in Canada as of August 30, 2020 compared to deaths in 2018.

Age group	COVID deaths in 6 months of 2020	Deaths in all of 2018	COVID as % of deaths over 6 months of 2020
0-19	1	3092	0.06%
20-29	9	3273	0.55%
30-39	15	4455	0.67%
40-49	50	7287	1.35%
50-59	211	19959	2.07%
60-69	651	40231	3.13%
70-79	1635	60143	5.16%
80+	6420	146266	8.07%
TOTAL	8992	283706	5.96%

In 2018 there were 23642 deaths/month and 777 deaths/day in Canada.

References: 124, 125

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ETable 3. Studies suggesting that efficacy of nonpharmaceutical interventions to prevent spread of COVID-19 are not as high as some predicted.

Study	Details of efficacy of non-pharmaceutical intervention
Luskin DL ¹⁴⁹	Using “highly detailed anonymized cellphone tracking data provided by Google... tabulated by the University of Maryland’s Transportation Institute into a ‘social distancing index’”, it was found that lockdown severity correlated with a greater spread of the virus, even when excluding states with the heaviest caseloads, and not with population density, age, ethnicity, prevalence of nursing homes, or general health, suggesting that “[heavy] lockdowns probably didn’t help.” This analysis also found that states that subsequently opened-up the most tended to have the lightest caseloads, suggesting that “opening up [a lot] didn’t hurt.”
Atkeson A, et al. ¹⁵⁰	An analysis across 23 countries and 25 states each with >1000 deaths by July 22 found that the growth rates of daily deaths from COVID-19 fell rapidly [from a wide range of initially high levels - doubling every 2-3 days] within the first 30 days after each region reached 25 cumulative deaths, and has hovered around zero or slightly below since. Epidemiological models found that this implied both the Re and transmission rates fell rapidly from widely dispersed initial levels [Re≥3], and the Re has hovered around 1 after the first 30 days of the epidemic virtually everywhere in the world. The authors suggest that there must be “an omitted variable bias” accounting for this finding [and similar findings in previous pandemics], that the role of region-specific NPI’s implemented in the early phase of the pandemic is likely overstated, and that the removal of lockdown policies has had little effect on transmission rates.
Chaudhry R, et al. ¹⁵¹	A study using data from the top 50 countries ranked by number of cases found that “rapid border closures, full lockdowns, and wide-spread testing were not associated with COVID-19 mortality per million people.”
Wood SN ¹⁵²	A mathematical model using “a Bayesian inverse problem approach applied to UK data on COVID-19 deaths and the disease duration distribution” suggested that “infections were in decline before the full UK lockdown (March 24), and that infections in Sweden started to decline only a day or two later.”
Chin V, et al. ¹⁵³	The model for Europe used in [7] was based on circular reasoning [i.e., having modelled Re “as a step function and only allowed to change in response to an intervention”]. Using a model allowing for gradual changes over time and better fitting the data, complete lockdown had “no or little effect, since it was introduced typically at a point when Rt was already low.” For example, when lockdown was adopted in the UK, “Rt had already decreased to 1.46.” In fact, “lockdown and event ban had similar effect sizes on the reduction of Rt”. Overall, “one cannot exclude that the attribution of benefit to complete lockdown is a modelling artefact.”
Homburg S, Kuhbandner C. ¹⁵⁴	The model in [7] used circular reasoning [“the purported effects are pure artefacts”] by “using as an a priori restriction that Rt may only change at those dates where interventions become effective.” In the UK “the growth factor had already declined... strongly suggests that the UK lockdown was both superfluous... and ineffective.” In addition, the attribution of the decline in Sweden’s Rt to banning of public events is odd because that was an “NPI that they found ineffective in all other countries.”
Islam N, et al. ¹⁵⁵	Implementation of any physical distancing intervention [including lockdown] was associated with an overall reduction in COVID-19 incidence of only 13% [IRR 0.87, 95% CI 0.85 to 0.89] in 149 countries. There was no effect on this estimate of days since the first reported case of COVID-19 until the first implementation of physical distancing policies.

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ETable 4. Cost-benefit analysis in WELLBYs for Canada's response to COVID-19

Factor in Canada	Benefit per month	Cost per month
COVID-19 deaths	37.59M X 0.5 for herd X 0.003 IFR X 5 QALY/ 12 months = 23,494 QALY = 140,963 WELLBY	-
Recession	-	(1.713T GDP/12 months X 0.15 GDP loss X 0.4 government spending)/100K = 85,650 QALY = 513,900 WELLBY
Unemployment	-	2M X 0.7/12 months = 116,667 WELLBY
Loneliness (if we end half of lockdown)	-	37.59M/2 X 0.5/12 months = 783,125 WELLBY
Disrupted health services, disrupted education	-	Not counted
TOTAL	0.141M WELLBY	1.41M WELLBY
BALANCE		10X [minimum]

IFR: infection fatality rate; K: thousands; M: Million; QALY: quality adjusted life years; WELLBY: wellbeing years

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