

EVIDENCE SYNTHESIS BRIEFING NOTE

TOPIC: EFFECTIVENESS OF INCENTIVES TO PROMOTE COVID-19 VACCINE UPTAKE

Information finalized as of June 17, 2021.^a This Briefing Note was completed by the [Research, Analysis, and Evaluation Branch \(Ministry of Health\)](#).

Purpose: This note summarizes the scientific evidence and jurisdictional experiences regarding the effectiveness of incentives to improve COVID-19 vaccine uptake. Findings related to incentives designed to promote the uptake of other vaccines or to modify other health-related behaviours were also included.

Key Findings:

- **Incentives for COVID-19 Vaccines:** Because incentive programs for COVID-19 vaccines have only recently been introduced, there is no direct evidence of their impact on vaccination rates. Mixed evidence was found from qualitative studies from the United States (US) examining the impact of financial incentives on willingness to be vaccinated among adults. One survey suggests that Israel's vaccination passport program may have led to an increase in willingness to be vaccinated.
 - **Risks:** Two articles raised concerns that financial incentives may either be ineffective at promoting, or may even discourage, COVID-19 vaccine uptake among individuals who have concerns about the safety of the vaccine.
 - **Implementation:** Vaccine lottery programs were launched in Alberta, Manitoba, and Nunavut; the evidence for whether lotteries are motivating Manitobans and Albertans to get vaccinated is mixed. In the US, 45 states, plus the District of Columbia, Puerto Rico, and the US Virgin Islands, have implemented COVID-19 vaccine lotteries. Preliminary outcomes of vaccine lottery programs in Ohio, California, and Oregon indicate a decrease in the number of vaccines administered following their launch. Across 10 international jurisdictions, prizes and awards are offered to encourage vaccination. Restrictions in access to public and private spaces (e.g., Israel, Saudi Arabia, United Arab Emirates) and disincentives in the form of fines (e.g., Indonesia) have also been implemented.
- **Incentives for Other Vaccines:** Evidence regarding the effectiveness of financial incentives in promoting uptake of other vaccines was mixed, with eight systematic reviews finding some evidence that financial incentives (either alone or in combination with other interventions like outreach programs) increased vaccination uptake (three of which noted the need for further study), and three reviews finding no evidence of effectiveness. Two systematic reviews found that the use of non-financial rewards was associated with an increase in vaccination uptake.
 - **Target Populations:** Some evidence for the effectiveness of incentives was found in programs targeting the general population, as well as: adolescents; seniors; individuals living in urban slums and low-income communities; health care workers; parents of school-age children; and people who inject drugs.
- **Incentives for Other Health-Related Behaviours:** Evidence from systematic reviews of incentive programs designed to modify other health-related behaviours (e.g., prenatal care use, smoking cessation) was mixed.

Implementation Implications: Given the expert guidance around risks and the limited evidence regarding effectiveness, it would be important to consider both the effectiveness of incentives and whether they risk discouraging vaccine uptake. Understanding why individuals remain unvaccinated may also be relevant. Finally, there is an ethical concern that significant incentives may be coercive.

^a This briefing note includes current available evidence as of the noted date. It is not intended to be an exhaustive analysis, and other relevant findings may have been reported since completion.

Supporting Evidence

[Table 1](#) below describes scientific evidence, expert guidance, and jurisdictional experiences regarding the effectiveness of incentives (primarily financial incentives) to improve COVID-19 vaccine uptake. In the Appendix, [Table 2](#) provides a summary of the scientific literature and expert guidance regarding the effectiveness, acceptability, and risks associated with the implementation of incentives to improve vaccine uptake and related modifications of health-related behaviour. [Table 3](#) provides a summary of the implementation of vaccine incentives across Canadian and international jurisdictions. The majority of the information presented is taken directly from the identified sources.

The following limitations should be noted:

- Limited information was available regarding outcomes of incentive programs targeting COVID-19 vaccines because such programs are still relatively new (mostly launched in May/June 2021). For this reason, evidence related to incentives designed to promote other health-related behaviours, including the uptake of other vaccines (e.g. influenza vaccines), was also included. The applicability of these findings to incentive programs in the context of COVID-19 is unknown.
- As of yet, there is no consensus in the identified literature regarding vaccine hesitancy or the explanations of why some people remain unvaccinated. Moreover, the unique circumstances surrounding the roll-out of the COVID-19 vaccines (including the unprecedented speed with which they were developed and approved, the urgency of the global pandemic, and the extent of the mobility restrictions imposed on unvaccinated individuals and communities) should be taken into consideration when evaluating these findings, as they may impact the effectiveness of incentive programs.
- Where expert guidance is cited, the recommendations are those of the authors of the original studies and the Research, Analysis, and Evaluation Branch does not have the expertise to evaluate such recommendations.

Table 1: Summary of Scientific Evidence, Expert Guidance, and Jurisdictional Experiences Regarding the Effectiveness of Incentives to Promote the Uptake of Vaccines

Scientific Evidence	<p>The following conclusions were drawn from a review of 14 systematic reviews (three with meta-analyses) and 12 single studies articles. Of these, five single studies specifically discussed incentives to promote the uptake of COVID-19 vaccines, while the rest evaluated the effectiveness of incentives to either promote uptake of other vaccines (e.g., influenza, Human papillomavirus [HPV]) or modify other health-related behaviours.</p> <p><u>Incentives for COVID-19 Vaccines:</u></p> <ul style="list-style-type: none"> • <u>Incentive Type/Size:</u> <ul style="list-style-type: none"> ○ <u>Financial Incentives:</u> There is mixed evidence of the effectiveness of financial incentive programs designed to improve the uptake of COVID-19 vaccines. <ul style="list-style-type: none"> ▪ Two studies based in the United States (US) conducted surveys to determine how incentives might affect individuals' willingness to receive a COVID-19 vaccine. One study found that while uptake was improved by the removal of cost barriers (CAD \$24 co-pay), financial incentives (of either CAD \$12 or CAD \$120) did not increase willingness to vaccinate, although they did not discourage vaccination either.¹ The other study (preprint) found that financial incentives between CAD \$1,200 and CAD \$2,400 yield an eight-percentage-point increase in vaccine uptake relative to
----------------------------	--

	<p>baseline, though the study only measured self-reported vaccine intentions at one point in time, not actual behaviours.²</p> <ul style="list-style-type: none"> ▪ One US study investigating COVID-19 vaccine incentives found that size of the cash transfer does not dramatically affect uptake rates.³ ○ Non-Financial Incentives: Two sources reviewed the implementation of Israel's 'Green Pass,' a vaccine passport designed to improve COVID-19 vaccine uptake among the general population.^{4,5} While there is no direct evidence of the impact of this program on vaccine coverage, the results of one survey suggested that it may have led to an increase in willingness to be vaccinated: 31% of respondents said the offer of a Green Pass and the associated benefits would possibly or definitely persuade them to get vaccinated, whereas 46% said that incentives would not persuade them.^{6,b} ● Target Population: The studies identified targeted the general population in the United States (US) and Israel. ● Implementation: One article suggested that financial incentives are likely to discourage vaccination (particularly among those most concerned about adverse effects), and that non-financial incentives are preferred.⁷ Another commentary article noted that financial incentives are unlikely to persuade individuals to get vaccinated if they have concerns about the safety of the vaccine, for example due to the expedited development of the vaccines. Additionally, there is the risk that a financial incentive will be too large and may therefore have a coercive effect on vulnerable populations.⁸ <p>Incentives for Other Types of Vaccines:^c</p> <ul style="list-style-type: none"> ● Incentive Type/Size: <ul style="list-style-type: none"> ○ Financial Incentives: Evidence regarding the effectiveness of financial incentives in promoting uptake of other vaccines was mixed, with eight systematic reviews finding some evidence that financial incentives (either alone or in combination with other interventions like outreach programs) increased vaccination uptake,^{9,10,11,12,13,14,15,16} and three reviews finding no evidence of effectiveness.^{17,18,19} However, among the eight systematic reviews that reported some evidence of a positive impact on vaccine uptake, three cautioned that further study was required^{20,21,22} and two noted the low quality of studies reviewed.^{23,24} The findings of two additional single studies suggested that financial incentives may boost vaccine uptake.^{25,26} <ul style="list-style-type: none"> ▪ The effect that the size of the financial incentive may have on improving vaccine uptake in general was rarely examined in the surveyed literature. One systematic review found; however, some limited evidence that the effect of financial incentives on improving attendance for vaccination decreased as post-intervention follow-up period and incentive value increased.²⁷ ○ Non-Financial Incentives: Two systematic reviews found that the use of rewards (e.g., gifts, cupcakes, raffle tickets, recognition for personal and work-group vaccination) was associated with an increase in vaccination uptake.^{28,29} One of the reviews, however, noted two important qualifications: 1) the target group in the study reviewed was very disadvantaged and as such the food-based incentive, so closely linked with basic
--	--

^b The possible impact of vaccine passports on the willingness to be vaccinated among the general population is briefly discussed in the previously completed [Evidence Synthesis Briefing Note #66: Guidance and Jurisdictional Evidence Regarding the Use of Vaccine Passports \(June 21, 2021\)](#).

^c Included here are incentive programs designed to improve uptake of HPV vaccines, influenza vaccines, and vaccines typically administered in early childhood.

	<p>survival, was unsurprisingly readily received; and 2) the baseline vaccination rates were very low (2%), which suggests that this target group was underserved and more likely to show greater outcome changes with an intervention.³⁰</p> <ul style="list-style-type: none"> • Target Population: The incentive programs covered in the literature targeted the general population, elderly, parents of school-age children, adolescents, individuals living in urban slums, people who inject drugs, health care workers, parents of new babies, and the vaccine hesitant. Some evidence for the effectiveness of incentives was found in programs targeting the general population,³¹ as well as for the following sub-populations: adolescents;³² individuals living in urban slums and low-income communities;^{33,34} health care workers;³⁵ parents of school-age children;³⁶ people who inject drugs;³⁷ and the elderly.³⁸ <ul style="list-style-type: none"> ○ It should be noted, however, that one systematic review found no evidence that financial incentives (i.e., a lottery for free groceries) had any effect on improving the vaccination rate against influenza among individuals aged 60+ years.³⁹ • Implementation: A qualitative study found that there was little appetite for parental financial incentives designed to improve vaccination coverage among preschool-aged children, though financial incentives would be preferable to mandatory interventions. Moreover, universal incentives were more likely to be deemed acceptable by the public than targeted incentives.⁴⁰ <p>Other Health-Related Behaviours:</p> <ul style="list-style-type: none"> • Incentive Type/Size: <ul style="list-style-type: none"> ○ Financial Incentives: Evidence drawn from systematic reviews of incentive programs designed to modify other health-related behaviours (e.g., prenatal care use, smoking cessation) was mixed. One systematic review found that financial incentive interventions were more effective than usual care or no intervention for encouraging healthy behaviour change;⁴¹ another found no evidence from reviews that examined the effect of financial incentives on patient outcomes;⁴² and a third concluded that there is insufficient evidence to fully evaluate the impact of incentives on prenatal care initiation.⁴³ The evidence drawn from single studies was also mixed on incentive effectiveness: <ul style="list-style-type: none"> ▪ One study found that conditional lottery incentives shortened the time to antiretroviral therapy (ART) initiation among South African men.⁴⁴ ▪ Another study found that non-cash financial incentives do not appear to affect the rate of specimen return in a chlamydia screening program among 16- to 24-year-olds in England.⁴⁵ • Target Population: The incentive programs covered in the literature targeted the general population, individuals aged 16-24 years in the United Kingdom (UK), pregnant women, and men living with HIV in South Africa. Some evidence for the effectiveness of incentives was found in programs targeting the general population,⁴⁶ pregnant women,⁴⁷ and men living with HIV in South Africa.⁴⁸ • Implementation: One UK study on the acceptability of financial incentives found that cash or shopping voucher-type financial incentives for healthy behaviours are not necessarily less acceptable than no incentives to adults. The study also noted that lower value incentives and those offered to all eligible individuals were preferred.⁴⁹
International Scan	<p>Information was available on COVID-19 vaccine incentive programs for nine organizations at the federal level in the United States (US), 30 jurisdictions/organizations at the state level in the US, and 10 jurisdictions/organizations internationally (Australia, France, Hong Kong, Israel, Indonesia, Philippines, Saudi Arabia, Serbia, Russia, and United Arab Emirates).</p> <ul style="list-style-type: none"> • Incentive Type/Size:

	<ul style="list-style-type: none"> ○ In the US, 45 states, plus the District of Columbia, Puerto Rico, and the US Virgin Islands, have set up COVID-19 vaccine lotteries.⁵⁰ Through public health departments and/or public private partnerships, a number of states have also offered prizes and other rewards. These incentives have been classified according to type, with categories such as: financial, scholarship, sports, transit, travel, experiences, food and drink, and other (e.g., provision of free childcare for adults seeking vaccine appointments or in need of backup while recovering from potential side effects; easing/termination of restrictions at a certain percentage vaccination rate). For example: <ul style="list-style-type: none"> ▪ Ohio was one of the first states to offer cash incentives to combat vaccine hesitancy by launching the Vax-a-Million lottery on May 12, 2021, which offers a CAD \$1.2 million prize to a vaccine recipient every week for five weeks, along with college scholarships for those aged 12-17 years.⁵¹ ▪ California implemented a similar lottery program to the one in Ohio, offering vaccine recipients a chance to win 10 prizes of CAD \$1.8 million, 30 prizes of CAD \$60,000, and CAD \$60 gift cards for two million others.⁵² ▪ Oregonians 18 years and older have the chance to win CAD \$1.2 million or one of 36 CAD \$12,000 prizes (with one winner in each county in Oregon), while Oregonians aged 12 to 17 years will have a chance to win one of five CAD \$120,000 Oregon College Savings Plan scholarships.⁵³ ○ Across the 10 international jurisdictions, the type of incentives used for encouraging COVID-19 vaccination are similar to the prizes and awards on offer in the US. Restrictions in access to public and private spaces (e.g., Israel, Saudi Arabia, United Arab Emirates) and disincentives in the form of fines (e.g., Indonesia) have also been implemented. ● Target Population: In general, COVID-19 vaccine incentive programs in the US were designed to be universal, but focus groups and surveys suggest that the most reluctant, least motivated, and/or vaccine-hesitant individuals skew younger, male, and/or Republicans.⁵⁴ ● Effectiveness: Preliminary outcomes of COVID-19 vaccine incentive programs in Ohio, California, and Oregon suggest a decrease in the number of vaccines administered despite the announcement of lotteries.^{55,56,57} For example: <ul style="list-style-type: none"> ○ In Ohio, in the week following the announcement, vaccination numbers increased during the two weeks following the lottery announcement on May 12, 2021 when compared with the week prior to the announcement.⁵⁸ Though Ohio does not track the motive of those getting the vaccine, officials said the boost in vaccination was promising.⁵⁹ However, vaccinations dropped by about a quarter in the following week, and again by almost a half the week after that.⁶⁰
<p>Canadian Scan</p>	<p>Information was available on COVID-19 vaccine incentive programs for Alberta, Manitoba, and Nunavut.</p> <ul style="list-style-type: none"> ● Incentive Type/Size: Vaccine lottery programs were launched in all three jurisdictions. <ul style="list-style-type: none"> ○ On June 14, 2021, Alberta offered residents 18 years and older the chance to win one of three CAD \$1 million prizes as part of its 'Open for Summer' lottery. Since then, the province has since expanded the incentive structure and is now offering several additional travel-related prizes (e.g., vacation packages, vouchers for business- and economy-class flights).⁶¹ ○ On June 9, 2021, Manitoba announced the financial incentives of CAD \$2 million in cash and scholarships to encourage people to get vaccinated. Two draws will be held: 1) all

	<p>Manitobans aged 12+ years who have received at least one dose of vaccine by August 2, 2021 will be eligible for the first draw; and 2) Manitobans aged 12+ years who have received two doses by September 6, 2021 will be eligible for the second draw.⁶²</p> <ul style="list-style-type: none"> ○ In January 2021, the municipality of Arviat, Nunavut (approximately 3,000 people) encouraged residents to get vaccinated by offering the chance to win one of five CAD \$2,000 prizes.⁶³ ● Target Population: The programs were designed to be universal. ● Effectiveness: The evidence for whether lotteries are inspiring Manitobans and Albertans to get vaccinated is mixed: <ul style="list-style-type: none"> ○ As of June 17, 2021, a spokesperson for Manitoba said there has been a ‘slight uptick’ in first doses since the announcement was made but analysis is still ongoing.⁶⁴ ○ As of June 16, 2021, the day after the lottery was announced in Alberta, the province has recorded its three lowest number of first vaccine tallies since February 2021.⁶⁵
Ontario Scan	<ul style="list-style-type: none"> ● No information was identified.

APPENDIX

Table 2: Scientific Evidence and Expert Guidance Regarding Financial and Non-Financial Incentives/Rewards to Encourage Health-Related Behaviours

Source	Type of Source	Summary of Findings
Vaccination		
Thomas, Roger E, and Diane L Lorenzetti. Interventions to Increase Influenza Vaccination Rates of Those 60 Years and Older in the Community . Edited by Cochrane Acute Respiratory Infections Group. <i>Cochrane Database of Systematic Reviews</i> , May 30, 2018.	Systematic Review	<p>Overview</p> <ul style="list-style-type: none"> This review aimed to assess access, provider, system, and societal interventions to increase influenza vaccination rates in those 60 years or older. 44 randomized controlled trials (RCTs) were included. All included randomized control trials (RCTs) studied seniors in the community and in high-income countries. No RCTs of society-level interventions were included. <p>Lottery Incentives</p> <ul style="list-style-type: none"> One study of a lottery for free groceries was not effective.
Abdullahi, Leila H, Benjamin M Kagina, Valantine Ngum Ndze, Gregory D Hussey, and Charles S Wiysonge. Improving Vaccination Uptake among Adolescents . Edited by Cochrane Effective Practice and Organisation of Care Group. <i>Cochrane Database of Systematic Reviews</i> , January 17, 2020.	Systematic Review	<p>Overview</p> <ul style="list-style-type: none"> This review aimed to evaluate the effects of interventions to improve vaccine uptake among adolescents. The study included 16 studies (eight individually RCTs, four cluster RCTs, three non-randomized trials, and one controlled before-after study). Twelve studies were conducted in the US, while there was one study each from: Australia, Sweden, Tanzania, and the United Kingdom (UK). Ten studies had unclear or high risk of bias. <p>Financial Incentives</p> <ul style="list-style-type: none"> Financial incentives may improve human papillomavirus (HPV) vaccine uptake compared to usual practice (RR 1.45, 95% CI 1.05 to 1.99; one study, 500 participants; low-certainty evidence). <ul style="list-style-type: none"> The authors were uncertain, however, whether combining health education and financial incentives has an effect on hepatitis B vaccine uptake, compared to usual practice (RR 1.38, 95% CI 0.96 to 2.00; one study, 104 participants; very low certainty evidence). <p>Implications</p> <ul style="list-style-type: none"> Most of the evidence is of low to moderate certainty. While this research provides some indication of the likely effect of these interventions, the likelihood that the effects will be substantially different is high. Additional research is needed to further enhance adolescent immunization strategies, especially in low- and middle-income countries where there are limited adolescent vaccination programs.

Source	Type of Source	Summary of Findings
<p>Adams, Jean, Belinda Bateman, Frauke Becker, Tricia Cresswell, Darren Flynn, Rebekah McNaughton, Yemi Oluboyede, et al. Effectiveness and Acceptability of Parental Financial Incentives and Quasi-Mandatory Schemes for Increasing Uptake of Vaccinations in Preschool Children: Systematic Review, Qualitative Study and Discrete Choice Experiment. <i>Health Technology Assessment</i> 19, no. 94 (November 2015): 1–176.</p>	<p>Systematic review, qualitative study, discrete choice experiment (DCE)</p>	<ul style="list-style-type: none"> It is critical to understand the factors that influence hesitancy, acceptance, and demand for adolescent vaccination in different settings. <p>Overview</p> <ul style="list-style-type: none"> This review aimed to provide evidence on the effectiveness, acceptability, and economic costs and consequences of parental financial incentives and quasi-mandatory schemes for increasing the uptake of preschool vaccinations. The review included studies exploring the effectiveness, acceptability, or economic costs and consequences of interventions that offered contingent rewards or penalties with real material value for preschool vaccinations, or quasi-mandatory schemes that restricted access to ‘universal’ services, compared with usual care or no intervention. Qualitative Study: Ten focus groups were conducted with parents and carers ($n = 91$) of preschool children living in the north-east of England. Discrete Choice Experiment and Questionnaire: Two groups of participants were recruited (via convenience sampling): those at high risk of not completely immunising their children (those living in a deprived area, with a preschool child with a disability, living alone, aged under 20 years, or with more than three children; $n = 259$); and those not at high risk of not completely immunising their children ($n = 262$). <p>Financial Incentives</p> <ul style="list-style-type: none"> Qualitative Study: There was little appetite for parental financial incentives. DCE and Questionnaire: Universal parental financial incentives were preferred to quasi-mandatory interventions, which were preferred to targeted incentives. Those reporting that they would need an incentive to vaccinate their children completely required around £110. Those who did not felt that the maximum acceptable incentive was around £70. <p>Implications</p> <ul style="list-style-type: none"> There was insufficient evidence to conclude that the interventions considered are effective. There is little current evidence on the effectiveness or economic costs and consequences of parental financial incentives and quasi-mandatory interventions for preschool vaccinations. Universal incentives are likely to be more acceptable than targeted ones. Preferences concerning incentives versus quasi-mandatory interventions may depend on the context in which these are elicited.
<p>Crocker-Buque, Tim, Michael Edelstein, and Sandra Mounier-Jack. Interventions to Reduce Inequalities in Vaccine Uptake in Children and Adolescents Aged <19 Years: A Systematic Review. <i>Journal of Epidemiology and</i></p>	<p>Systematic review</p>	<p>Overview</p> <ul style="list-style-type: none"> This systematic review updates a 2009 systematic review on effective interventions to decrease vaccine uptake inequalities in light of new technologies applied to vaccination and new vaccine programs (e.g., HPV in adolescents). The 41 included studies evaluated complex multicomponent interventions ($n=16$), reminder/recall systems ($n=18$), outreach programs ($n=3$), or computer-based interventions ($n=2$). <p>Financial Incentives</p> <ul style="list-style-type: none"> The evidence for client-side financial incentives was mixed in the previous review, and the authors found one additional study that showed an increase in adolescent HPV uptake.

Source	Type of Source	Summary of Findings
<i>Community Health</i> 71, no. 1 (January 2017): 87–97.		<p>Implications</p> <ul style="list-style-type: none"> The study concludes that locally designed, multicomponent interventions have evidence of effectiveness in urban, ethnically diverse, deprived populations. There is some evidence emerging for text-message reminders, particularly in adolescents, but that other types of technology have not yet been evaluated.
Crocker-Buque, Tim, Godwin Mindra, Richard Duncan, and Sandra Mounier-Jack. Immunization, Urbanization and Slums – a Systematic Review of Factors and Interventions . <i>BMC Public Health</i> 17, no. 1 (December 2017): 556.	Systematic review	<p>Overview</p> <ul style="list-style-type: none"> This study aims to identify factors associated with immunization coverage in poor urban areas and slums, and to identify interventions to improve coverage. The authors identified 63 studies for inclusion: 44 considering factors and 20 evaluating interventions (one in both categories) in 16 low- or middle-income countries. A wide range of socio-economic characteristics were associated with coverage in different contexts. <p>Financial Incentives</p> <ul style="list-style-type: none"> Some evidence was found for the effective use of financial incentive, which warrants further evaluation.
Tressler, Stacy, and Ruchi Bhandari. Interventions to Increase Completion of Hepatitis B Vaccination in People Who Inject Drugs: A Systematic Review and Meta-Analysis . <i>Open Forum Infectious Diseases</i> 6, no. 12 (December 1, 2019): ofz521.	Systematic review and meta-analysis	<p>Overview</p> <ul style="list-style-type: none"> The authors conducted a systematic review and meta-analysis of RCTs and randomized studies to determine the effect (pooled odds ratio) of interventions to increase hepatitis B vaccination completion in people who inject drugs (PWID). 11 studies met the eligibility criterion of having a randomized intervention to increase hepatitis B virus vaccination completion among PWID. <p>Financial Incentives</p> <ul style="list-style-type: none"> Subgroup analyses comparing the interventions by type indicated that financial incentives were most effective (OR, 7.01; 95% CI, 2.88–17.06), followed by accelerated vaccine schedules (OR, 1.90; 95% CI, 1.14–3.14). <p>Implications</p> <ul style="list-style-type: none"> Interventions using financial incentives and accelerated vaccine schedules are moderately effective at increasing hepatitis B vaccination completion in PWID.
Rashid, Harunor, Jiehui Kevin Yin, Kirsten Ward, Catherine King, Holly Seale, and Robert Booy. Assessing Interventions To Improve Influenza Vaccine Uptake Among Health Care Workers . <i>Health Affairs</i> 35, no. 2 (February 2016): 284–92.	Systematic review	<p>Overview</p> <ul style="list-style-type: none"> This systematic review of RCTs was conducted to understand the evidence about interventions to improve influenza vaccine uptake among health care workers. The authors identified 12 RCTs that, collectively, assessed six major categories of interventions involving 193,924 health care workers in high-income countries. One of the included categories was non-financial rewards (i.e., gifts, cupcakes, raffle tickets, coupons, coat pins, T-shirts, buttons, bracelets, and recognition for personal and work-group vaccination). <p>Non-Financial Rewards</p> <ul style="list-style-type: none"> Two studies were in a sense two different stages of one study conducted over two years. In the first year, there was only an educational intervention, and no significant difference in vaccine uptake between the study arms was found. However, in the second year, when the researchers added other interventions (lead advocates and rewards), there was a significant increase in vaccine uptake in the intervention arm.

Source	Type of Source	Summary of Findings
		<p>Implications</p> <ul style="list-style-type: none"> Despite the low quality of the studies identified, the data suggest that combined interventions can moderately increase vaccine uptake among health care workers.
<p>Ryan, Rebecca, Nancy Santesso, Dianne Lowe, Sophie Hill, Jeremy M Grimshaw, Megan Pricor, Caroline Kaufman, Genevieve Cowie, and Michael Taylor. Interventions to Improve Safe and Effective Medicines Use by Consumers: An Overview of Systematic Reviews. Edited by Cochrane Consumers and Communication Group. <i>Cochrane Database of Systematic Reviews</i>, April 29, 2014.</p>	<p>Systematic review</p>	<p>Overview</p> <ul style="list-style-type: none"> This is an update of a 2011 overview of systematic reviews, which synthesizes the evidence, irrespective of disease, medicine type, population, or setting, on the effectiveness of interventions to improve consumers' medicines use. The authors included 75 systematic reviews of varied methodological quality. The reviews assessed interventions with diverse aims, including support for behaviour change, risk minimization, and skills acquisition. Medicines adherence was the most frequently reported outcome, but others such as knowledge, clinical, and service-use outcomes were also reported. <p>Financial Incentives</p> <ul style="list-style-type: none"> For immunization uptake, there is sufficient-to-some evidence that financial incentives are generally effective, though the authors caution that further study is required to be more certain of the effect. <p>Implications</p> <ul style="list-style-type: none"> Despite a doubling of the number of included reviews in this update, uncertainty remains about the effects of many interventions, and the evidence on what works was particularly sparse for several populations, including children and young people, carers, and people with multimorbidity.
<p>Hutchinson, Anastasia F., and Sheree M. Smith. Effectiveness of Strategies to Increase Uptake of Pertussis Vaccination by New Parents and Family Caregivers: A Systematic Review. <i>Midwifery</i> 87 (August 2020): 102734.</p>	<p>Systematic review</p>	<p>Overview</p> <ul style="list-style-type: none"> The objective of this systematic review was to evaluate the effectiveness of strategies to increase uptake of vaccination against <i>Bordetella pertussis</i>^d infection by parents and family caregivers of newborn children (greater than three old). Eight studies were included in this review. Strategies used to promote vaccination included: <ul style="list-style-type: none"> Written and verbal education; Promotional videos; Provision of vaccine prescriptions and financial incentives; Opportunistic vaccination of family members; and Population-based health promotional messaging. <p>Financial Incentives</p> <ul style="list-style-type: none"> The only study that provided financial incentives to increase vaccine uptake demonstrated no effect. <p>Implications</p> <ul style="list-style-type: none"> Promotion of pertussis vaccination to new parents and the provision of vaccination during the obstetric admission or post-natal visit were the most successful strategies to increase uptake of pertussis vaccination by family caregivers.

^d *Bordetella pertussis* is the causative agent of pertussis or whooping cough, one of the diseases inoculated against with the diphtheria, tetanus and pertussis (DTaP) immunization.

Source	Type of Source	Summary of Findings
<p>Bassani, Diego G, Paul Arora, Kerri Wazny, Michelle F Gaffey, Lindsey Lenters, and Zulfiqar A Bhutta. Financial Incentives and Coverage of Child Health Interventions: A Systematic Review and Meta-Analysis. <i>BMC Public Health</i> 13, no. Suppl 3 (2013): S30.</p>	<p>Systematic review and meta-analysis</p>	<p>Overview</p> <ul style="list-style-type: none"> • The objective of this review is to provide estimates on the effect of six types of financial incentive programs: <ul style="list-style-type: none"> ○ Unconditional cash transfers (CT); ○ Conditional cash transfers (CCT); ○ Microcredit (MC); ○ Conditional Microcredit (CMC); ○ Voucher schemes (VS); and ○ User fee removal (UFR) on the uptake and coverage of health interventions targeting children under the age of five years. • The authors conducted systematic searches of a series of databases until September 1, 2012 to identify relevant studies reporting on the impact of financial incentives on coverage of health interventions and behaviours targeting children under five years of age. • Meta-analyses were undertaken to estimate the effect when multiple studies meeting our inclusion criteria were available. <p>Financial Incentives</p> <ul style="list-style-type: none"> • There is no effect of financial incentives on immunization coverage although there was moderate quality evidence of conditional cash transfers leading to a small but non-significant increase in coverage of age-appropriate immunization. <p>Implications</p> <ul style="list-style-type: none"> • Financial incentives may have potential to promote increased coverage of several important child health interventions, but the quality of evidence available is low. • The more pronounced effects seem to be achieved by programs that directly removed user fees for access to health services. • Some indication of effect was also observed for programs that conditioned financial incentives on participation in health education and attendance to health care visits. • This finding suggests that the measured effect may be less a consequence of the financial incentive and more due to conditionalities addressing important informational barriers.
<p>Jarrett, Caitlin, Rose Wilson, Maureen O’Leary, Elisabeth Eckersberger, and Heidi J. Larson. Strategies for Addressing Vaccine Hesitancy – A Systematic Review. <i>Vaccine</i> 33, no. 34 (August 2015): 4180–90.</p>	<p>Systematic review</p>	<p>Overview</p> <ul style="list-style-type: none"> • The purpose of the systematic review was to identify strategies that have been implemented and evaluated across diverse global contexts in an effort to respond to, and manage, issues of vaccine hesitancy. <p>Financial and Non-Financial Incentives</p> <ul style="list-style-type: none"> • Incentive-based interventions using either conditional or non-conditional cash transfers were least successful among those evaluated, although these interventions were usually targeting general preventive health engagement and not just vaccination. • The evidence for non-financial incentives for parents/communities located in low-income settings (India) was moderate for a large, positive effect on uptake of the Expanded Program on Immunization (EPI) vaccines (RR 2.16 [1.68, 2.77]). <ul style="list-style-type: none"> ○ However, in this study the target group was very disadvantaged and as such, the food-based incentive, so closely linked with basic survival, was readily received.

Source	Type of Source	Summary of Findings
		<ul style="list-style-type: none"> Furthermore, the baseline vaccination rates were very low (2%), which suggests that this target group were underserved and more likely to show greater outcome changes with an intervention. <p>Implications</p> <ul style="list-style-type: none"> This review shows that vaccine hesitancy is a complex issue and no single strategy will be able to address it.
Giles, Emma L., Shannon Robalino, Elaine McColl, Falko F. Sniehotta, and Jean Adams. The Effectiveness of Financial Incentives for Health Behaviour Change: Systematic Review and Meta-Analysis . Edited by Hamid Reza Baradaran. <i>PLoS ONE</i> 9, no. 3 (March 11, 2014): e90347.	Systematic review & Meta-Analysis	<p>Overview</p> <ul style="list-style-type: none"> The authors aimed to conduct a systematic review of the effectiveness of financial incentive interventions for encouraging healthy behaviour change, and to explore whether effects vary according to the type of behaviour incentivized, post-intervention follow-up time, or incentive value. Seventeen papers reporting on 16 studies on smoking cessation (n=10), attendance for vaccination or screening (n=5), and physical activity (n=1) were included. <p>Financial Incentives</p> <ul style="list-style-type: none"> In meta-analyses, the average effect of incentive interventions was greater than control for attendance for vaccination or screening (1.92 (1.46 to 2.53)). Meta-regression found some, limited, evidence that effect sizes decreased as post-intervention follow-up period and incentive value increased. <ul style="list-style-type: none"> However, the latter effect may be confounded by the former.
Kreps, Sarah, Nabarun Dasgupta, John S. Brownstein, Yulin Hswen, and Douglas L. Kriner. Public Attitudes toward COVID-19 Vaccination: The Role of Vaccine Attributes, Incentives, and Misinformation . <i>Npj Vaccines</i> 6, no. 1 (December 2021): 73.	Single study	<p>Overview</p> <ul style="list-style-type: none"> Employing a survey of 1,096 adult Americans, the authors examined the relationships between vaccine attributes, proposed policy interventions such as financial incentives, and misinformation on public vaccination preferences. <p>Financial Incentives^e</p> <ul style="list-style-type: none"> While a CAD \$24 co-pay reduced the likelihood of vaccination relative to a no-cost baseline, financial incentives (of either CAD \$12 or CAD \$120) did not increase willingness to vaccinate, although they did not discourage vaccination either. <p>Implications</p> <ul style="list-style-type: none"> Higher degrees of vaccine efficacy significantly increased individuals' willingness to receive a COVID-19 vaccine, while a high incidence of minor side effects, a co-pay, and Emergency Use Authorization to fast-track the vaccine decreased willingness.
Mantzari, Eleni, Florian Vogt, and Theresa M. Marteau. Financial Incentives for Increasing Uptake of HPV Vaccinations: A Randomized Controlled	Single study	<p>Overview</p> <ul style="list-style-type: none"> This trial assesses: (a) the impact of financial incentives on uptake and completion of an HPV vaccination program; and (b) whether impacts are moderated by participants' deprivation level. It also assesses the impact of incentives on decision quality to get vaccinated, as measured by attitudes toward the vaccination and knowledge of its consequences <p>Financial Incentives</p>

^e The study reported figures of USD \$20, USD \$10, and USD \$100. All Canadian Dollar (CAD) amounts were calculated using Purchasing Power Parities (PPPs) as published by the Organisation for Economic Co-operation and Development (OECD) for 2019 (1 United States Dollar [USD] = 1.200 CAD). PPPs are the rates of currency conversion that eliminate the differences in price levels between countries ([OECD, 2019](#)).

Source	Type of Source	Summary of Findings
<p>Trial, <i>Health Psychology</i> 34, no. 2 (February 2015): 160–71.</p>		<ul style="list-style-type: none"> • One thousand 16- to 18-year-old girls were invited to participate in an HPV vaccination program: 500 previously uninvited, and 500 unresponsive to previous invitations. • Participants randomly received either a standard invitation letter or a letter including the offer of vouchers worth ~CAD \$78.39 for undergoing three vaccinations.^f Outcomes were uptake of the first and third vaccinations and decision quality. • The intervention increased uptake of: <ul style="list-style-type: none"> ○ The first vaccination (first-time invitees: 28.4% vs. 19.6%, odds ratio [OR] = 1.63, 95% confidence interval [CI; 1.08, 2.47]; previous nonattenders: 23.6% vs. 10.4%, OR = 2.65, 95% CI [1.61, 4.38]); and ○ The third vaccination (first-time invitees: 22.4% vs. 12%, OR = 2.15, 95% CI [1.32, 3.50]; previous nonattenders: 12.4% vs. 3%, OR = 4.28, 95% CI [1.92, 9.55]). • Impacts were not moderated by deprivation level. • Decision quality was unaffected by the intervention. <p>Implications</p> <ul style="list-style-type: none"> • Although the intervention increased completion of HPV vaccinations, uptake remained lower than the national target, which, in addition to cost effectiveness and acceptability issues, necessitates consideration of other ways of achieving it.
<p>Yue, Mu, Yi Wang, Chng Kiat Low, Joanne Su-yin Yoong, and Alex R. Cook. Optimal Design of Population-Level Financial Incentives of Influenza Vaccination for the Elderly. <i>Value in Health</i> 23, no. 2 (February 2020): 200–208.</p>	<p>Single study</p>	<p>Overview</p> <ul style="list-style-type: none"> • The objective of this study was to identify how monetary incentives affect influenza vaccination uptake rate using an RCT and to subsequently design an optimal incentive program in Singapore, a high-income country with a market-based health care system. <p>Financial Incentives^g</p> <ul style="list-style-type: none"> • Increasing the total incentive for vaccination and reporting from CAD \$13.60 to CAD \$27.20 increased participation in vaccination from 4.5% to 7.5% ($P < .001$). • Increasing the total incentive from CAD \$27.20 to CAD \$40.80 increased the participation rate to 9.2%, but this was not statistically significantly different from a CAD \$27.20 incentive. • The group of nonworking elderly were more sensitive to changes in incentives than those who worked. • In addition to working status, the effects of increasing incentives on influenza vaccination rates differed by ethnicity, socio-economic status, household size, and a measure of social resilience. • There were no significant differential effects by age group, gender, or education, however. • The cost of the program per completed vaccination under a CAD \$27.20 incentive is CAD \$50.05, which was the lowest among the three intervention arms. <p>Implications</p> <ul style="list-style-type: none"> • Appropriate monetary incentives can boost influenza vaccination rates.

^f The study reported a figure of GBP £45. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 British Pound [GBP] = 1.742 CAD) ([OECD, 2019](#)).

^g The study reported figures of SGD 10, SGD 20, SGD 30 and SGD 36.80. All CAD amounts were calculated using PPPs as published by the OECD for 2018 (1 Singapore Dollar [SGD] = 1.360 CAD) ([OECD, 2018](#)).

Source	Type of Source	Summary of Findings
<p>Robertson, Christopher T., Daniel Scheitrum, K. Aleks Schaefer, Trey Malone, Brandon R. McFadden, Paul Ferraro, and Kent D. Messer. Paying People to Take the Vaccine - Would It Help or Backfire? SSRN <i>Electronic Journal</i>, 2021.</p>	<p>Preprint</p>	<ul style="list-style-type: none"> Increasing monetary incentives for vaccination from CAD \$13.60 to CAD \$27.20 can improve the influenza vaccination uptake rate, but further increasing the monetary incentive to CAD \$40.80 results in no additional gains. A partial incentive may therefore be considered to improve vaccination coverage in this high-risk group. <p>Overview</p> <ul style="list-style-type: none"> This research investigates the extent to which financial incentives (conditional cash transfers) would induce Americans to opt for vaccination against COVID-19. The authors performed a randomized survey experiment with a representative sample of 1,000 American adults in December 2020. <p>Financial Incentives^h</p> <ul style="list-style-type: none"> Respondents were asked whether they would opt for vaccination under one of three incentive conditions (CAD \$1,200, CAD \$1,800, or CAD \$2,400 financial incentive) or a no-incentive condition. The authors found that, without coupled financial incentives, only 58% of survey respondents would elect for vaccination. A coupled financial incentive yields an eight-percentage-point increase in vaccine uptake relative to this baseline. The size of the cash transfer does not dramatically affect uptake rates. However, incentive responses differ dramatically by demographic group. <ul style="list-style-type: none"> Republicans were less responsive to financial incentives than the general population. For Black and Latino Americans especially, very large financial incentives may be counter-productive. <p>Implications</p> <ul style="list-style-type: none"> The authors find that financial incentives between CAD \$1,200 and CAD \$2,400 to receive the vaccine yields an eight-percentage-point increase in uptake relative to baseline.
<p>Largent, Emily A., and Franklin G. Miller. Problems With Paying People to Be Vaccinated Against COVID-19. <i>JAMA</i> 325, no. 6 (February 9, 2021): 534-535.</p>	<p>Opinion</p>	<p>Overview</p> <ul style="list-style-type: none"> This commentary describes features of two payment-for-vaccination proposals that have garnered attention from academics and politicians, outline several important objections, and maintain that payment for vaccination is morally suspect, likely unnecessary, and may be counterproductive. <p>Financial Incentives</p> <ul style="list-style-type: none"> It is likely that a majority of the population will be eager to get vaccinated as soon as possible in view of the extremely high and increasing number of SARS-CoV-2 infections and COVID-19-related hospitalizations and deaths. Some of the documented reluctance may naturally dissipate as individuals observe others being vaccinated without adverse health effects and as reports of vaccine-related adverse effects remain quite rare. There are opportunity costs associated with using money for cash incentives.

^h The study reported figures of USD \$1,000, USD \$1,500 and USD \$2000. All CAD amounts were calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Source	Type of Source	Summary of Findings
		<ul style="list-style-type: none"> Some might feel that a substantial monetary incentive for vaccination is coercive; the author stipulates that this is a misconception that confuses an offer with a threat, but also acknowledges that there is a genuine ethical concern about the influence of such an incentive on decision-making. COVID-19 vaccine hesitancy is rooted in concerns such as the warp speed development and approval of vaccines, politicization of the broader pandemic response, and even denial that the pandemic is real. It is unclear that offering incentive payments can or will overcome apprehensions like these. <ul style="list-style-type: none"> Rather, cash incentives might reasonably be expected to heighten these apprehensions or raise new ones, as offers of payment are often understood to signal that a behaviour is undesirable or risky. <p>Implications</p> <ul style="list-style-type: none"> A policy of paying people for COVID-19 vaccination should be adopted only as a last resort if voluntary vaccine uptake proves insufficient to promote herd immunity within a reasonable period of time. Public funds would be better spent advancing other evidence-based proposals to increase voluntary vaccine uptake.
<p>Katz GM, Born KB, Balicer RD, et al. Lessons Learned from Israel's Reopening During a Nationwide COVID-19 Vaccination Campaign. <i>Science Briefs of the Ontario COVID-19 Science Advisory Table</i>. 2021;2(33).</p>	<p>Evidence Review</p>	<p>Overview</p> <ul style="list-style-type: none"> This brief describes how Israel maintained an overall decrease in SARS-CoV-2 cases and COVID-19 hospitalizations, ICU admissions, and deaths throughout all phases of reopening. In particular, this brief discusses the role of Israel's 'Green Pass'. <p>Green Pass</p> <ul style="list-style-type: none"> The Green Pass was a vaccination certificate which was introduced from February 21, 2021 to June 1, 2021 to allow fully vaccinated or COVID-19 recovered individuals to enter higher SARS-CoV-2 transmission risk settings. Temporary Green Passes were also granted to children with a negative COVID-19 PCR test within 72 hours. A goal of the Green Pass was to motivate vaccine uptake among younger or vaccine hesitant groups. <ul style="list-style-type: none"> Full vaccination enabled citizens to hold a Green Pass, and have access to cultural venues, sports events, and concert halls. When SARS-CoV-2 infection levels were higher, restaurants, hotels, gyms, and other higher transmission risk indoor settings also required a Green Pass to enter. Green Pass standard requirements expired on June 1, 2021 — corresponding with low nationwide SARS-CoV-2 infection numbers and high COVID-19 vaccine coverage. These were key initiatives to incentivize COVID-19 vaccine uptake and facilitate Israel's safe reopening. <p>Implications</p> <ul style="list-style-type: none"> Vaccine passports or certification systems such as Israel's Green Pass can incentivize vaccine uptake, emphasize outdoor activities, and support a safe return to social and communal events in the arts and recreation.
<p>Wilf-Miron, Rachel, Vicki Myers, and Mor Saban. Incentivizing Vaccination Uptake: The 'Green Pass'</p>	<p>Opinion</p>	<p>Overview</p> <ul style="list-style-type: none"> This commentary aims to describe the possible impact of a vaccine passport on vaccine coverage by incentivizing vaccine uptake.

Source	Type of Source	Summary of Findings
<p>Proposal in Israel. <i>JAMA</i> 325, no. 15 (April 20, 2021): 1503.</p>		<p>Key Considerations</p> <ul style="list-style-type: none"> • The aim of Israel's Green Pass vaccine passport program is to encourage citizens, including those at lower risk of severe COVID-19 disease, to receive vaccination in a national attempt to achieve a 95% immunization rate, presumably a sufficient percentage to reach herd immunity. • Issues of equity, with groups of low socioeconomic status initially demonstrating lower vaccination rates despite higher disease burden, should be addressed with outreach actions. <p>Estimated Impact</p> <ul style="list-style-type: none"> • In a recent survey conducted in 2021, among 503 Israelis, 21% reported not intending to be vaccinated soon. • Of these individuals (n = 106), 31% said the offer of a Green Pass and the associated benefits would possibly or definitely persuade them to get vaccinated, whereas 46% said that incentives would not persuade them. <p>Implications</p> <ul style="list-style-type: none"> • Although the proposed Green Pass model provides little more than freer movement, once adopted, after months of restrictions it certainly could be perceived as an incentive. • If this model is to be implemented, all barriers to vaccination must be removed for individuals who want to receive the vaccine, including obstacles related to access, logistics, and health literacy, as well as provision of reliable information to help people make an informed and free choice.
<p>Volpp, Kevin G., George Loewenstein, and Alison M. Buttenheim. Behaviorally Informed Strategies for a National COVID-19 Vaccine Promotion Program. <i>JAMA</i>, December 14, 2020.</p>	Opinion	<p>Overview</p> <ul style="list-style-type: none"> • This commentary proposes five strategies, informed by insights from behavioural science, for a national COVID-19 vaccine promotion program in the US. <p>Financial Incentives</p> <ul style="list-style-type: none"> • Paying people to engage in activities including vaccination can, in theory, make sense in situations where an individual's actions benefit other people. • Considerable research shows, however, that payments in some contexts can send the signal that an action is undesirable, unpleasant, or even dangerous and not worth taking based purely on personal benefit. <p>Implications</p> <ul style="list-style-type: none"> • Financial incentives are likely to discourage vaccination (particularly among those most concerned about adverse effects); instead, contingent non-financial incentives are the desired approach.
Other health-related behaviours		
<p>Flodgren, Gerd, Martin P Eccles, Sasha Shepperd, Anthony Scott, Elena Parmelli, and Fiona R Beyer. An Overview of Reviews Evaluating the Effectiveness of Financial Incentives in Changing Healthcare Professional</p>	Overview of systematic reviews	<p>Overview</p> <ul style="list-style-type: none"> • An overview of systematic reviews that evaluates the impact of financial incentives on health care professional behaviour and patient outcomes. • The authors identified four reviews reporting on 32 studies. Two reviews received AMSTAR scores indicating moderate quality and two received scores indicating high quality. The reported quality of the included studies was, by a variety of methods, low to moderate. <p>Financial Incentives</p> <ul style="list-style-type: none"> • The authors found no evidence from reviews that examined the effect of financial incentives on patient outcomes.

Source	Type of Source	Summary of Findings
<p>Behaviours and Patient Outcomes. Edited by Cochrane Effective Practice and Organisation of Care Group. <i>Cochrane Database of Systematic Reviews</i>, July 6, 2011.</p>		
<p>Till, Sara R, David Everetts, and David M Haas. Incentives for Increasing Prenatal Care Use by Women in Order to Improve Maternal and Neonatal Outcomes. Edited by Cochrane Pregnancy and Childbirth Group. <i>Cochrane Database of Systematic Reviews</i>, December 15, 2015.</p>	Systematic review	<p>Overview</p> <ul style="list-style-type: none"> • The objective of this review was to determine whether incentives are an effective tool to increase utilization of timely prenatal care among women. • The authors identified 11 studies (19 reports), six of which were excluded. Five studies, involving 11,935 pregnancies were included, but only 1,893 pregnancies contributed data regarding our specified outcomes. • Incentives in the studies included cash, gift card, baby carrier, baby blanket, or taxicab voucher and were compared with no incentives. <p>Financial Incentives</p> <ul style="list-style-type: none"> • The review found that pregnant women receiving incentives were no more likely to initiate prenatal care (risk ratio (RR) 1.04, 95% confidence interval (CI) 0.78 to 1.38, one study, 104 pregnancies). • Pregnant women receiving incentives were more likely to attend prenatal visits on a frequent basis (RR 1.18, 95% CI 1.01 to 1.38, one study, 606 pregnancies) and obtain adequate prenatal care. <p>Implications</p> <ul style="list-style-type: none"> • There is limited evidence that incentives may increase utilization and quality of prenatal care, but may also increase caesarean rate. Overall, there is insufficient evidence to fully evaluate the impact of incentives on prenatal care initiation. • There are conflicting data as to the impact of incentives on return for postpartum care. • Two of the five studies which accounted for the majority of women in this review were conducted in rural, low-income, overwhelmingly Hispanic communities in Central America, thus limiting the external validity of these results.
<p>Giles, Emma L., Shannon Robalino, Elaine McColl, Falko F. Sniehotta, and Jean Adams. The Effectiveness of Financial Incentives for Health Behaviour Change: Systematic Review and Meta-Analysis. Edited by Hamid Reza Baradaran.</p>	Systematic review and meta-analysis	<p>Overview</p> <ul style="list-style-type: none"> • In this systematic review, the authors aimed to conduct a systematic review of the effectiveness of financial incentive interventions for encouraging healthy behaviour change, and to explore whether effects vary according to the type of behaviour incentivized, post-intervention follow-up time, or incentive value. • Seventeen papers reporting on 16 studies on smoking cessation (n=10), attendance for vaccination or screening (n=5), and physical activity (n=1) were included. <p>Results</p> <ul style="list-style-type: none"> • The available evidence suggests that financial incentive interventions are more effective than usual care or no intervention for encouraging healthy behaviour change.

Source	Type of Source	Summary of Findings
<p>PLoS ONE 9, no. 3 (March 11, 2014): e90347.</p>		
<p>Barnabas, Ruanne V, Alastair Heerden, Margaret McConnell, Adam A Szpiro, Meighan L Krows, Torin T Schaafsma, Thulani Ngubane, et al. Lottery Incentives Have Short-term Impact on ART Initiation among Men: Results from a Randomized Pilot Study. <i>Journal of the International AIDS Society</i> 23, no. S2 (June 2020).</p>	Single study	<p>Overview</p> <ul style="list-style-type: none"> This study consisted of a randomized, prospective trial of lottery incentives in the context of HIV testing and linkage to antiretroviral therapy (ART) in rural KwaZulu-Natal, South Africa. <p>Lottery Incentives</p> <ul style="list-style-type: none"> Compared to motivational text messages, lottery incentives decreased the median time to ART initiation from 126 to 66 days ($p = 0.0043$, age-adjusted Cox regression) among all participants, and, from 134 days to 20 days ($p = 0.0077$) among participants who were not virally suppressed at baseline. Lottery incentives had an inconclusive effect on clinic registration (RR = 1.21, 95% CI: 0.83 to 1.76) and on viral suppression at six months (RR = 1.13, 95% CI: 0.73 to 1.75) compared to motivational text messages. <p>Implications</p> <ul style="list-style-type: none"> Conditional lottery incentives shortened the time to ART initiation among South African men. Behavioural economics strategies strengthen linkage to ART, but the study power was limited to see an impact on viral suppression.
<p>Dolan, Paul, and Caroline Rudisill. The Effect of Financial Incentives on Chlamydia Testing Rates: Evidence from a Randomized Experiment. <i>Social Science & Medicine</i> 105 (March 2014): 140–48.</p>	Single study	<p>Overview</p> <ul style="list-style-type: none"> In this study, the authors tested the effect of providing different types of non-cash financial incentives on the return rates of chlamydia specimen samples among 16- to 24-year-olds in England. In 2011 and 2012, the authors ran a two-stage randomized experiment involving 2,988 young people (1,489 in Round 1 and 1,499 in Round 2) who requested a chlamydia screening kit from Freetest.me, an online and text screening service run by Preventx Limited. Participants were randomized to control, or one of five types of financial incentives in Round 1 or one of four financial incentives in Round 2. The authors tested the effect of five types of incentives on specimen sample return; reward vouchers of differing values, charity donation, participation in a lottery, choices between a lottery and a voucher and including vouchers of differing values in the test kit prior to specimen return. <p>Financial Incentives</p> <ul style="list-style-type: none"> Financial incentives of any type did not make a significant difference in the likelihood of specimen return. <ul style="list-style-type: none"> The more deprived individuals were, as calculated using Index of Multiple Deprivation (IMD), the less likely they were to return a sample. The extent to which incentive structures influenced sample return was not moderated by IMD score. Non-cash financial incentives for chlamydia testing do not seem to affect the specimen return rate in a chlamydia screening program where test kits are requested online, mailed to requestors, and returned by mail. They also do not appear more or less effective in influencing test return depending on deprivation level. <p>Implications</p>

Source	Type of Source	Summary of Findings
		<ul style="list-style-type: none"> This study suggests that non-cash financial incentives do not appear to affect the rate of specimen return in a chlamydia screening program where individuals request test kits online, receive them in the mail and return them by mail and that these effects are no stronger or weaker depending on socioeconomic status.
<p>Giles, Emma L., Frauke Becker, Laura Ternent, Falko F. Sniehotta, Elaine McColl, and Jean Adams. Acceptability of Financial Incentives for Health Behaviours: A Discrete Choice Experiment. Edited by Nandita Mitra. <i>PLOS ONE</i> 11, no. 6 (June 17, 2016): e0157403.</p>	<p>Single study</p>	<p>Overview</p> <ul style="list-style-type: none"> There is concern that financial incentives to encourage healthy behaviours may be unacceptable to the public and to those delivering services and policymakers, but this has been poorly studied. Without widespread acceptability, financial incentives are unlikely to be widely implemented. The authors sought to answer two questions: <ul style="list-style-type: none"> What are the relative preferences of UK adults for attributes of financial incentives for healthy behaviours (e.g. not smoking, regular physical activity, and taking part in vaccination and disease screening)? Do preferences vary according to the respondents' socio-demographic characteristics? The authors conducted an online discrete choice experiment. Participants were adult members of a market research panel living in the UK selected using quota sampling. Preferences were examined for financial incentives for: smoking cessation, regular physical activity, attendance for vaccination, and attendance for screening. <p>Financial Incentives</p> <ul style="list-style-type: none"> Cash or shopping voucher incentives were preferred as much as, or more than, no incentive in all cases. Lower value incentives and those offered to all eligible individuals were preferred. Younger participants and men were more likely to prefer incentives. There were no clear differences in preference according to educational attainment. <p>Implications</p> <ul style="list-style-type: none"> Cash or shopping voucher-type financial incentives for healthy behaviours are not necessarily less acceptable than no incentives to UK adults.

Table 3: Jurisdictional Scan of Incentives to Promote COVID-19 Vaccine Uptake (in 2021)

Jurisdiction/Organization	Summary of Implementation
Canada	
Alberta	<ul style="list-style-type: none"> • Open for Summer Lottery^{66,67} <ul style="list-style-type: none"> ○ <u>Type: Financial, Travel</u> <ul style="list-style-type: none"> ▪ All Alberta residents 18 years and older who have had at least one dose of an approved COVID-19 vaccine can enter to win one of three \$1 million prizes. ▪ Albertans who get fully vaccinated with two doses of COVID-19 vaccine will also have the chance to win one of several travel-related prizes. The province said people must opt into the vaccine lottery to comply with Alberta’s privacy legislation. For the travel prizes, the province said Albertans need to have received both vaccine doses before registration closes at 11:59 p.m. on August 24. Winners will be announced on August 31. • WestJet prize includes: <ul style="list-style-type: none"> ○ One WestJet Vacation Package for two to Dreams Vista Cancun Golf & Spa Resort, including round-trip economy flights and a seven-night all-inclusive stay; ○ One voucher for two people to fly round trip, business class, anywhere in WestJet’s network; ○ 10 vouchers for two people to fly round trip, economy class, anywhere in Canada; ○ Three giveaways of 1,500 WestJet dollars; and ○ Five giveaways of WestJet Rewards Gold Status. • Air Canada prize includes: <ul style="list-style-type: none"> ○ One Air Canada Vacation Package for two to Planet Hollywood Cancun, including round-trip economy flights and a seven-night all-inclusive stay; ○ One voucher for two people to fly round trip, business class, anywhere in Air Canada’s network; ○ 10 vouchers for two people to fly round trip, economy class, anywhere in Canada; ○ Three giveaways of 100,000 Aeroplan bonus points; and ○ Five giveaways of Aeroplan 50K Status.
Manitoba	<ul style="list-style-type: none"> • Manitoba Vaccination Lottery^{68,69} <ul style="list-style-type: none"> ○ <u>Type: Financial</u> <ul style="list-style-type: none"> ▪ Manitoba plans to hold a lottery that will hand out \$2 million in cash and scholarships to entice people to get vaccinated against COVID-19, becoming the first province in Canada to offer incentives to boost slowing demand for the shots. ▪ All Manitobans aged 12 and up who have received at least one dose of vaccine by August 2 will be eligible for the first draw. ▪ All Manitobans aged 12 and up who have received two doses by September 6 will be eligible for the second draw. ▪ Anyone who has been immunized by these deadlines will automatically be entered.
Nunavut	<ul style="list-style-type: none"> • Nunavut Vaccination Lottery⁷⁰ <ul style="list-style-type: none"> ○ <u>Type: Financial</u> <ul style="list-style-type: none"> ▪ In Arviat, Nunavut, the community in Nunavut that has seen most of the territory’s COVID-19 cases, the municipality is encouraging residents to get vaccinated by offering cash prizes. <p>Residents of the central Nunavut hamlet of about 3,000 people can win one of five \$2,000 prizes for getting the shot.</p>
United States	

Jurisdiction/Organization	Summary of Implementation
United States (National)	<ul style="list-style-type: none"> • Dating platforms (Nationwide)⁷¹ <ul style="list-style-type: none"> ○ <u>Type: Other</u> <ul style="list-style-type: none"> ▪ The White House is partnering with several prominent dating platforms including Tinder, Hinge, and Bumble to give access to premium content to those who can prove they have been vaccinated. ▪ Among the extra incentives being offered by Tinder, for example, is access to the ‘Super Like’ feature to ‘help them stand out among potential matches’, the White House said.
United States (Private)	<ul style="list-style-type: none"> • <u>Krispy Kreme ‘Be Sweet to your Community’ (Nationwide)</u>⁷² <ul style="list-style-type: none"> ○ <u>Type: Food & Drink</u> <ul style="list-style-type: none"> ▪ With the campaign ‘Be Sweet to your Community’, the donut chain Krispy Kreme is offering one free donut per day for the rest of 2021 upon showing your vaccination record card. ▪ Qualified guests include anyone who has received at least one of the two shots of the Moderna or Pfizer COVID-19 Vaccine or one shot of the Johnson & Johnson COVID-19 Vaccine. • <u>White Castle ‘Vax for Snacks’ (Nationwide)</u>⁷³ <ul style="list-style-type: none"> ○ <u>Type: Food & Drink</u> <ul style="list-style-type: none"> ▪ White Castle is offering a free ‘Dessert-On-A-Stick’ upon proof of a COVID-19 vaccination. ▪ The offer is part of White Castle’s ‘Vax for Snacks’ effort, which seeks to support the US vaccination campaign and end the pandemic. The offer is valid through May 31, with no purchase necessary. • <u>Anheuser-Busch ‘Buy Americans 21+ A Round of Beer’ (Nationwide)</u>⁷⁴ <ul style="list-style-type: none"> ○ <u>Type: Food & Drink</u> <ul style="list-style-type: none"> ▪ On June 2, the major brewer Anheuser-Busch pledged to buy Americans 21+ a round of beer once 70% of U.S. adults are partially vaccinated, in support of the President’s goal of hitting that milestone by July 4. ▪ Once the national goal is hit, Budweiser will buy the nation’s next round of beer, seltzer or non-alcoholic beverage. ▪ Those over age 21 can cash in by submitting a photo of themselves at their favorite spot to grab a drink to MyCooler.com/Beer. • <u>UpDown ‘Tokens for Poke’ns</u>⁷⁵ <ul style="list-style-type: none"> ○ <u>Type: Other</u> <ul style="list-style-type: none"> ▪ An arcade bar chain located across five Midwestern states (Iowa, Missouri, Wisconsin, Minnesota, Tennessee, and Oklahoma) started a ‘Tokens for Poke’ns’ campaign, offering CAD \$6ⁱ in free tokens to anyone who can show proof that they have been fully-vaccinated against the coronavirus. • <u>NFL Super Bowl LVI Tickets</u>⁷⁶ <ul style="list-style-type: none"> ○ <u>Type: Sport</u> <ul style="list-style-type: none"> ▪ The NFL announced during the Global Citizen’s VAX Live: The Concert to Reunite the World event that they would be giving away 50 tickets to Super Bowl LVI to vaccinated people who shared why it was important to get the shot. The New York-based Major League Baseball teams are offering vaccinations at their respective stadiums (Yankee Stadium and Citi Field) and a free ticket to a game as encouragement to get the vaccine.

ⁱ The report included a figure of USD \$5. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
Alabama	<ul style="list-style-type: none"> • Alabama ‘The Race to End COVID’⁷⁷ <ul style="list-style-type: none"> ○ <u>Type: Experience</u> <ul style="list-style-type: none"> ▪ Alabama Department of Health recently gave residents aged 16 and older the opportunity to drive two laps in their own vehicle on the Talladega Superspeedway after getting a drive-through COVID test or vaccine at the racetrack.
Alaska	<ul style="list-style-type: none"> • Alaska (name of incentive program not identified)⁷⁸ <ul style="list-style-type: none"> ○ <u>Type: Travel & Other</u> <ul style="list-style-type: none"> ▪ In Alaska, the Norton Sound Health Corp., with a hospital in Nome and 15 clinics across western Alaska, has given away prizes, including airline tickets, money toward the purchase of an all-terrain vehicle, and CAD \$600 for groceries or fuel.^j
Arizona	<ul style="list-style-type: none"> • Arizona (name of incentive program not identified)⁷⁹ <ul style="list-style-type: none"> ○ <u>Type: Sport</u> <ul style="list-style-type: none"> ▪ Arizona has partnered with the Arizona Diamondbacks to host a vaccination event at Chase Field on Saturday, June 5, where people will be able to run the bases, take photos on the field, and receive a voucher for two tickets to a future baseball game.
Arizona (Private)	<ul style="list-style-type: none"> • Arizona ‘Snax for Vaxx’⁸⁰ <ul style="list-style-type: none"> ○ <u>Type: Food/Drink</u> <ul style="list-style-type: none"> ▪ In Arizona, the Mint Cannabis Dispensary, partnered with a medical group to offer vaccines under a ‘Snax for Vaxx’ promotion. Adults who get vaccinated are offered a joint and an edible cannabis sweet, while Greenhouse dispensary, in Walled Lake, Michigan, has also given out free pre-rolled joints as part of a ‘Pot for Shots’ initiative.
Arkansas	<ul style="list-style-type: none"> • Arkansas (name of incentive program not identified)⁸¹ <ul style="list-style-type: none"> ○ <u>Type: Financial & Sport</u> <ul style="list-style-type: none"> ▪ Starting May 26, Arkansans who get a COVID-19 vaccination can receive a CAD \$24^k Arkansas Game and Fish certificate for fishing/hunting licenses or a CAD \$24^l lottery ticket that could win a million dollars.
California	<ul style="list-style-type: none"> • California ‘Vax for the Win’⁸² <ul style="list-style-type: none"> ○ <u>Type: Financial, Sport, Experience^m</u> <ul style="list-style-type: none"> ▪ 10 winners were selected on June 15 to win cash prizes of CAD \$1.8 million each. ▪ Any Californian ages 12 years or over who has had at least one dose of the vaccine will be eligible to win — no entry necessary. ▪ If a minor wins, the funds will be put into a savings account until they turn 18 years. ▪ 30 winners will be selected on ‘\$50,000 Fridays.’ Fifteen winners will be selected on June 4 and fifteen more will be chosen on June 11 to win a CAD \$60,000 cash prize each. If a minor wins, the funds will be put into a savings account until they turn 18 years.

^j The report listed a figure of USD \$500. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^k The report listed a figure of USD \$20. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^l The report listed a figure of USD \$20. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^m The report listed figures of USD \$1.5 million, USD \$50,000, USD \$2,000 and USD \$50. All CAD amounts were calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
	<ul style="list-style-type: none"> ▪ The next 2 million Californians who begin and complete their COVID-19 vaccinations, starting Thursday, will be eligible to receive a CAD \$60 virtual prepaid card or a CAD \$60 grocery gift card for Kroger or Albertsons while supplies last. ▪ On July 1, California will give away six vacations, including hotels, food, and entertainment for up to four. Winners will be able to: <ul style="list-style-type: none"> ○ See the Giants play in San Francisco; ○ Enjoy a spa in Palm Springs; ○ Say hi to Mickey at Disneyland in Anaheim; ○ Watch the Lakers play in Los Angeles; ○ Learn to surf in San Diego; and ○ Receive CAD \$2,400 for expenses. All vaccinated Californians 18 years and over are automatically entered to win.
Colorado	<ul style="list-style-type: none"> • Colorado "Comeback Cash"⁷⁸³ <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarshipⁿ</u> <ul style="list-style-type: none"> ▪ The Colorado Lottery will conduct a random weekly drawing on behalf of the Colorado Department of Health & Environment to identify one vaccinated Colorado resident each week to win a million-dollar cash prize. All Colorado residents age 18 years and older who have received at least one dose of COVID-19 vaccine, as determined by eligibility rules, are automatically entered. ▪ Coloradans age 12 to 17 years can also win CAD \$60,000 toward college tuition or other postsecondary education. Each week for five weeks, five eligible Coloradans will each be selected to win a CAD \$60,000 scholarship. Teens who have received at least one dose of a COVID-19 vaccine may be eligible for the scholarship drawing.
Connecticut	<ul style="list-style-type: none"> • Connecticut #CTDrinksOnUs⁸⁴ <ul style="list-style-type: none"> ○ <u>Type: Food & Drink</u> <ul style="list-style-type: none"> ▪ The Connecticut Restaurant Association is partnering with Governor Ned Lamont and the State of Connecticut to launch the #CTDrinksOnUs campaign, where participating Connecticut restaurants will offer complimentary drinks to vaccinated patrons beginning May 19, 2021.
Delaware	<ul style="list-style-type: none"> • Delaware 'DE Wins'⁸⁵ <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship, Travel, Experience, Other</u> <ul style="list-style-type: none"> ▪ <u>Description & Eligibility:</u> <ul style="list-style-type: none"> • Delawareans aged 18 and older vaccinated in Delaware between May 25 and June 29 will have the opportunity to win cash prizes. • Delawareans vaccinated in Delaware are eligible to win CAD \$362,400^o and two low-number license plates. • Delawareans aged 12 to 17 who receive a vaccine in Delaware will be entered into a raffle for a full scholarship to a Delaware university. • Other prizes include tickets to Firefly, four-day vacations at destinations in Delaware, a dart pass for a year, and free tolls within the state of Delaware. • Delaware officials are offering to reimburse bars, restaurants, and shops that offer discounts, freebies, or other incentives to customers who get vaccinated. • Delaware officials are offering to inmates five days of good time credits, a free video visit, snack bag, or a special meal, and an opportunity to be scheduled first for in-person visitations when they resume.

ⁿ The report listed a figure of USD \$50,000. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^o The report listed a figure of USD \$302,000. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
Florida (Miami)	<ul style="list-style-type: none"> • Miami ‘Shots for Shots’⁸⁶ <ul style="list-style-type: none"> ○ <u>Type: Food & Drink</u> <ul style="list-style-type: none"> ▪ Miami Beach Chamber of Commerce ran a ‘Shots for Shots’ promotion on America’s Memorial Day to encourage beachgoers to get their vaccines at a drop-in site, where they were given a coupon for a free drink.
Hawaii	<ul style="list-style-type: none"> • Hawaii (name of incentive program not identified)⁸⁷ <ul style="list-style-type: none"> ○ <u>Type: Other</u> <ul style="list-style-type: none"> ▪ Description & Eligibility: At a 70% vaccination rate, all restrictions will be terminated, including social gatherings, travel restrictions, and restaurant capacity limits.
Illinois	<ul style="list-style-type: none"> • Illinois (name of incentive program not identified)⁸⁸ <ul style="list-style-type: none"> ○ <u>Type: Experience</u> <ul style="list-style-type: none"> ▪ Illinois will give out 50,000 free Six Flags tickets to anyone who has been vaccinated through a partnership with Six Flags Great America payment. ▪ Chicago is putting on a show for fully vaccinated residents this summer: The Protect Chicago Music Series, a monthly music event open exclusively to vaccinated residents and taking place across the city all summer long.
Indiana	<ul style="list-style-type: none"> • Indiana (name of incentive program not identified)⁸⁹ <ul style="list-style-type: none"> ○ <u>Type: Food & Drink</u> <ul style="list-style-type: none"> ▪ State health officials announced that anyone who gets vaccinated at specially designated sites will receive a box of Girl Scout cookies along with the shot.
Kentucky	<ul style="list-style-type: none"> • Kentucky ‘Shot At A Million’⁹⁰ <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship</u> <ul style="list-style-type: none"> ▪ Kentuckians aged 18 years old and older who have received at least their first dose of a Moderna or Pfizer COVID-19 vaccine, or the one-dose Johnson & Johnson vaccine, may enter to win one of three CAD \$1.2 million^P drawings. ▪ Kentuckians aged 12 to 17 years old who have received at least their first dose of the Pfizer COVID-19 vaccine may enter to win one of 15 full scholarships to a Kentucky public college, university, technical or trade school, which includes tuition, room-and-board and books.
Louisiana	<ul style="list-style-type: none"> • Louisiana ‘Shot for A Shot’⁹¹ <ul style="list-style-type: none"> ○ <u>Type: Food & Drink, Experience</u> <ul style="list-style-type: none"> ▪ Participating businesses will provide a free alcoholic or non-alcoholic drink to people who can prove they have been fully vaccinated within the previous seven days. ▪ Vaccinated individuals can gain free entry into all of Louisiana’s 21 State Parks through July 31. This offer is available to all visitors from Louisiana and elsewhere who have been vaccinated, no matter when they got their shot. This offer does not extend to tour groups.
Maine	<ul style="list-style-type: none"> • Maine ‘Your Shot to Get Outdoors’⁹² <ul style="list-style-type: none"> ○ <u>Type: Experience</u> <ul style="list-style-type: none"> ▪ Any Maine resident aged 18 years and older who gets their first shot of a Pfizer or Moderna vaccine, or the single-shot Johnson & Johnson vaccine in Maine will qualify to receive one of the below rewards from the state’s public-private initiative: <ul style="list-style-type: none"> • Fishing License: The Maine Department of Health and Human Services will purchase up to 5,000 fishing licenses for the year 2021 for Maine residents from the Maine Department of Inland Fisheries and Wildlife.

^P The report listed a figure of USD \$1 million. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
	<ul style="list-style-type: none"> • Hunting License: The Maine Department of Health and Human Services will purchase up to 5,000 hunting season licenses for the year 2021 for eligible Maine residents from the Maine Department of Inland Fisheries and Wildlife. Eligible Maine residents include those who have completed a hunter safety course, have previously held a license, and are not felons. • Maine Wildlife Park Pass: The Maine Department of Health and Human Services will purchase up to 5,000 passes to the Maine Wildlife Park in Gray, which are good for admission through the 2021 season, from the Maine Department of Inland Fisheries and Wildlife. One pass allows admission for up to two people. • Maine State Park Day Pass: The Maine Department of Health and Human Services will purchase up to 5,000 day passes for Maine residents to Maine State Parks through the Maine Department of Agriculture, Conservation and Forestry. The passes can be used through June 15, 2021. One pass allows admission for one vehicle. • L.L. Bean Gift Card: The Maine Department of Health and Human Services will purchase up to CAD \$24^q gift cards from L.L.Bean for use at their stores. • Sea Dogs Admission Ticket: The Maine Department of Health and Human Services will purchase up to 5,000 tickets from the Portland Sea Dogs, the Double-A affiliate of the Boston Red Sox, for baseball games at Hadlock Field in Portland for 2021 regular season. • Oxford Plains Speedway Pass: The Maine Department of Health and Human Services will purchase from Oxford Plains Speedway up to 5,000 tickets for weekly events in the 2021 racing season.
Maryland	<ul style="list-style-type: none"> • Maryland 'VaxToWin'^{93,94,95} <ul style="list-style-type: none"> ○ Type: Financial, Food & Drink <ul style="list-style-type: none"> ▪ A partnership between the Maryland Lottery and the Maryland Health Department provided a lottery prize worth CAD \$2.4 million^r for Marylanders who get vaccinated. ▪ The Annapolis, Maryland-based pizza chain Ledo Pizza is offering one free eight-inch Cheese Pizza to Maryland residents who've received their first dose of the vaccine through June 30, or until they've given out 10,000 pizzas.
Massachusetts	<ul style="list-style-type: none"> • Massachusetts (name of incentive program not identified)⁹⁶ <ul style="list-style-type: none"> ○ Type: Financial, Scholarship, Other^s <ul style="list-style-type: none"> ▪ Fully vaccinated residents who are 18 or older will have a chance to win one of the five CAD \$1.2 million prizes, while those between the ages of 12 and 17 will be eligible to win one of five CAD \$360,000 scholarship grants. ▪ In Chelsea, a predominantly young and Latino city near Boston that has been one of Massachusetts' virus hotspots, health officials organized a vaccination party in late May attended by 120 people, replete with music and Latin American food. Health officials are planning a follow-up so that attendees can get second shots.⁹⁷
Michigan	<ul style="list-style-type: none"> • Michigan 'MI Vacc Back to Normal'⁹⁸ <ul style="list-style-type: none"> ○ Type: Other, Food & Drink

^q The report listed a figure of USD \$20. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^r The report listed a figure of USD \$2 million. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^s The report listed figures of USD \$1 million and USD \$300,000. All CAD amounts were calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
	<ul style="list-style-type: none"> ▪ Once the state documents that 70% of the eligible population received at least one dose, its orders on masks and limitations for public and private gatherings would be dropped. ▪ The Greenhouse of Walled Lake, a marijuana dispensary in Michigan, is giving out 'pot for shots'.⁹⁹
Minnesota	<ul style="list-style-type: none"> • Minnesota 'Your Shot to Summer' and 'Cheers to the Vaccine'¹⁰⁰ <ul style="list-style-type: none"> ○ <u>Type: Experience, Food & Drink</u> <ul style="list-style-type: none"> ▪ Minnesotans who get vaccinated between Memorial Day weekend through of June 30 will be eligible to choose a reward from nine different options. The incentives are state park passes, fishing licenses, and tickets to fairs and amusement parks. There is also the possibility to receive a CAD \$30[†] Visa card. ▪ Minnesotans 21 years of age and older who have received at least one COVID-19 vaccine dose will be eligible for a free or discounted drink at participating establishments starting May 28 through June 30.
Nevada (Las Vegas)	<ul style="list-style-type: none"> • Las Vegas (name of incentive program not identified)¹⁰¹ <ul style="list-style-type: none"> ○ <u>Type: Experience</u> <ul style="list-style-type: none"> ▪ The popular strip club the Hustler Club hosted a free vaccination clinic with complimentary dances, bottles, and show tickets.
New Jersey	<ul style="list-style-type: none"> • New Jersey 'Vax and Visit' and 'Shot and a Beer'¹⁰² <ul style="list-style-type: none"> ○ <u>Type: Experience, Food & Drink</u> <ul style="list-style-type: none"> ▪ Beginning May 27 through July 4, the New Jersey Department of Environmental Protection will offer a State Parks Vax Pass — allowing free access to State parks, including Island Beach State Park — good through December 31, 2021. ▪ Residents who get vaccinated before the end of May, including anyone who has received their shots in the preceding five-plus months, will also be eligible to have dinner with Murphy and first lady Tammy Snyder Murphy. ▪ In partnership with the Brewer's Guild of New Jersey, the Governor's Office launched the 'Shot and a Beer' program to encourage eligible New Jerseyans ages 21 and over to get vaccinated. Any New Jerseyan who got their first vaccine dose in the month of May and took their vaccination card to a participating brewery received a free beer, courtesy of the participating brewery. This program ended May 31.
New Mexico	<ul style="list-style-type: none"> • New Mexico 'Vax 2 the Max Sweepstakes'¹⁰³ <ul style="list-style-type: none"> ○ <u>Type: Financial</u>[‡] <ul style="list-style-type: none"> ▪ Five weekly drawings will award CAD \$300,000 to one winner from each of the state's four public health regions, for a total of CAD \$1.2 million in cash prizes each week. A grand prize of CAD \$6 million will be awarded at the conclusion of the sweepstakes, in early August, to one winner drawn from the statewide pool of vaccinated New Mexicans who have opted into the sweepstakes.
New York	<ul style="list-style-type: none"> • New York (name of incentive programs not identified)^{104,105,106} <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship, Sport, Experience, Transit, Food & Drink</u> <ul style="list-style-type: none"> ▪ Vaccination program that will provide free NYS Lottery scratch-off tickets to individuals 18 and over with a grand prize of CAD \$6 million.[‡]

[†] The report listed a figure of USD \$25. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

[‡] The report listed figures of USD \$1 million, USD \$5 million and USD \$250,000. All CAD amounts were calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

[‡] The report listed a figure of USD \$5 million. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
	<ul style="list-style-type: none"> ▪ In New York, new incentives include a full-ride scholarship to one of the state’s public universities, according to The New York Times. Beginning May 27, any 12- to 17-year old New York residents are eligible to be entered into the raffle after getting their first dose of the Pfizer vaccine. ▪ Governor Andrew Cuomo began a promotion that would provide free tickets to Mets games from May 24 through June 17 and to Yankee games from May 7 through June 6 for newly vaccinated people, along with another promotion that gave residents free weekly subway passes. ▪ New York City mayor Bill de Blasio announced that tickets to many of the city’s top destinations and experiences will be made available at a discount or for free to those who’ve received the COVID-19 vaccine. The list, which he says will continue to expand, currently includes: NYC Aquarium, NY Botanic Garden, Brooklyn Botanic Garden, Bronx Zoo, Public Theatre Membership, Lincoln Center, Brooklyn Cyclones, New York City Football Club, the NYC Ferry and a free two-week Citi Bike membership. ▪ Between May 21 and 31, every person who receives the COVID-19 vaccine, either a first dose or single dose of Johnson & Johnson, anywhere in New York State, was eligible to receive a free two-day pass to any state park. ▪ The State is partnering with six public transportation providers in Upstate New York to incentivize more New Yorkers to get vaccinated. The six providers cover the Capital, Finger Lakes, Central New York, and Southern Tier regions. Anyone who receives their first dose of Pfizer or Moderna or the single-dose Johnson & Johnson vaccine at any provider in New York State between June 15 and July 14 and presents proof of vaccination at a participating transportation redemption center no later than July 14 will receive an unlimited seven-day public transportation pass for a participating provider’s transit network. ▪ The burger chain Shake Shack joined forces with N.Y.C. Mayor Bill de Blasio to offer vaccinated New Yorkers free Crinkle Cut Fries with the purchase of any burger or chicken sandwich until June 12. While supplies last, residents can also earn a ShackBurger voucher (good through the end of the year) when they get vaccinated at one of the city’s mobile vaccine buses. ▪ Nathan’s is offering a free hot dog on the same day of your vaccine at their original Coney Island location in Brooklyn, New York.
<p>North Carolina</p>	<ul style="list-style-type: none"> • North Carolina (name of incentive program not identified)^{107,108} <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship</u> <ul style="list-style-type: none"> ▪ From May 26 through June 8, select vaccine sites will offer Summer Cash Cards in Mecklenburg, Guilford, Rowan and Rockingham counties. Anyone 18 and older who gets their first dose of a COVID-19 vaccination — or drives someone to their vaccination — will receive a CAD \$30^w cash card after vaccination at a participating location while supplies last. Cards are for the first dose only for both the person being vaccinated and the driver. ▪ The state university is offering students who get vaccinated a chance to win the cost of housing.
<p>Ohio</p>	<ul style="list-style-type: none"> • Ohio ‘Vax-a-Million’¹⁰⁹ <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship</u> <ul style="list-style-type: none"> ▪ Ohioans aged 18 and older will be entered into ‘Ohio Vax-a-Million,’ a weekly drawing with a prize of up to CAD \$1.2 million.^x A total of five weekly drawings for each prize will take place, with the first winners being announced May 26. Winners must have received at least one dose of a COVID-19 vaccine by the date of their respective drawing. ▪ Ohioans 17 and under who are eligible to receive a COVID-19 vaccination will be entered into a drawing for a full, four-year scholarship to any of Ohio’s state colleges and universities, including full tuition, room and board, and books. A total of five weekly drawings for a full, four-year scholarship will take place, with the first winner being announced May 26.

^w The report listed a figure of USD \$25. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^x The report listed a figure of USD \$1 million. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
Oregon	<ul style="list-style-type: none"> • Oregon (name of incentive program not identified)¹¹⁰ <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship^y</u> <ul style="list-style-type: none"> ▪ Oregonians 18 and older will have the chance to win CAD \$1.2 million or one of 36 CAD \$12,000 prizes—with one winner in each county in Oregon. ▪ Oregonians age 12 to 17 will have a chance to win one of five CAD \$120,000 Oregon College Savings Plan scholarships. ▪ All Oregonians who have received at least one dose of a COVID-19 vaccine by the draw date will be entered to win.
Pennsylvania	<ul style="list-style-type: none"> • Pennsylvania (name of incentive program not identified)¹¹¹ <ul style="list-style-type: none"> ○ <u>Type: Other</u> <ul style="list-style-type: none"> ▪ If 70 percent of eligible people got their shots, the state would lift its mask mandate for everyone. ▪ Philadelphia has partnered with local sports teams the Sixers, Eagles, Flyers, and Wawa to bring mascots, free game tickets, and complimentary coffee to clinics, a city spokesperson said, and is planning additional incentives.
Washington	<ul style="list-style-type: none"> • Washington (name of incentive program not identified)¹¹² <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship, Sport, Food & Drink</u> <ul style="list-style-type: none"> ▪ The Washington State Lottery will be conducting a giveaway series during the month of June, working with state agencies, technology companies, sports teams and higher education institutions across the state to offer a myriad of different prizes to vaccinated individuals. The incentives include: <ul style="list-style-type: none"> • Lottery cash drawings, with prizes totaling CAD \$2.4 million;^z • Higher education tuition and expense assistance; • Sports tickets and gear; • Gift cards; • Airline tickets; and • Game systems and smart speakers. ▪ Washington State announced their promotion called ‘Joints for Jobs,’ which will allow adults who are 21 or older to claim a free marijuana joint once they receive their shot. The promotion will run through July 12.¹¹³
Washington D.C.	<ul style="list-style-type: none"> • Washington D.C. (name of incentive program not identified)¹¹⁴ <ul style="list-style-type: none"> ○ <u>Type: Food & Drink</u> <ul style="list-style-type: none"> ▪ The World Central Kitchen founder, José Andrés, is giving out CAD \$60^{aa} gift cards to his restaurants in the Washington, D.C. area to those who show proof of vaccination as of May 8 or later. ▪ The participating restaurants include Jaleo DC, Jaleo Crystal City, Oyamel, Zaytinya, or China Chilcano.
West Virginia	<ul style="list-style-type: none"> • West Virginia (name of incentive program not identified)¹¹⁵ <ul style="list-style-type: none"> ○ <u>Type: Financial, Scholarship, Experience, Other^{bb}</u>

^y The report listed figures of USD \$1 million, USD \$10,000 and USD \$100,000. All CAD amounts were calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^z The report listed a figure of USD \$2 million. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^{aa} The report listed a figure of USD \$50. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

^{bb} The report listed figures of USD \$1.588 million, USD \$588,000, USD \$1 million, and USD \$100. All CAD amounts were calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
	<ul style="list-style-type: none"> ▪ The giveaway will include a CAD \$1.906 million grand prize, a CAD \$705,600 second prize, weekly drawings for CAD \$1.2 million, full scholarships to any West Virginia state college or university, custom-outfitted trucks, weekend vacations at state parks, lifetime hunting and fishing licenses, custom hunting rifles and custom hunting shotguns. <ul style="list-style-type: none"> • West Virginians 12 to 17 years of age, who have received at least their first dose of the Pfizer COVID-19 vaccine, may enter for a chance to win one of five, four-year full-ride scholarships, including room-and-board, tuition, and books, to any West Virginia state college or university. • West Virginians 18 years of age and older, who have received at least their first COVID-19 vaccine if receiving the Pfizer or Moderna vaccines or one dose if receiving the Johnson & Johnson vaccine, have a chance to win one of several large prizes. ▪ West Virginia is offering CAD \$120 savings bond or CAD \$120 gift card to anyone between the ages of 16 to 35 who receives, or has already received, a COVID-19 vaccine. Money for this incentive will come from federal CARES Act funding.
International	
Australia	<ul style="list-style-type: none"> • Australia (name of incentive program not identified)¹¹⁶ <ul style="list-style-type: none"> ○ <u>Type: Travel</u> <ul style="list-style-type: none"> ▪ In a bid to accelerate Australia's sluggish vaccine rollout, Qantas Airways is offering a host of incentives, including unlimited flights for a year for people who are inoculated.
France	<ul style="list-style-type: none"> • France (name of incentive program not identified)¹¹⁷ <ul style="list-style-type: none"> ○ <u>Type: Travel</u> <ul style="list-style-type: none"> ▪ France has been administering vaccines in a decommissioned World War II submarine base in the western city of Lorient, where almost 60,000 shots have been given.
Hong Kong	<ul style="list-style-type: none"> • Hong Kong (name of incentive program not identified)¹¹⁸ <ul style="list-style-type: none"> ○ <u>Type: Financial, Experience, Other</u> <ul style="list-style-type: none"> ▪ To encourage citizens to get their jabs, many businesses in Hong Kong are offering a slew of perks and prizes — ranging from shopping vouchers, flight tickets, staycation packages, cruise vacation, cold cash, and a Tesla, Rolex watch, million-dollar flat, and gold bars.
Indonesia	<ul style="list-style-type: none"> • Indonesia (name of incentive program not identified)¹¹⁹ <ul style="list-style-type: none"> ○ <u>Type: Disincentives (fines)</u> <ul style="list-style-type: none"> ▪ Indonesian authorities believe disincentives may work better. People refusing to be vaccinated will face fines (up to CAD \$1,400^{cc}) or see their welfare payments restricted.
Israel	<ul style="list-style-type: none"> • Israel 'Green Pass'^{120, 121, 122} <ul style="list-style-type: none"> ○ <u>Type: Tax discounts, Food & Drink, Restrictions</u> <ul style="list-style-type: none"> ▪ The mayor of Givatayim, east of Tel Aviv, on Wednesday to offer a discount on property taxes to families in which everyone above the age of 16 is vaccinated through the end of the month. His announcement, via Twitter, did not provide further details, such as the discount amount. ▪ Israel initially offered vaccinated residents a 'green pass' — state-issued documentation indicating they had been fully vaccinated. The pass holders could easily access restaurants, clubs, gyms, weddings and other venues, while those without had to take frequent coronavirus tests to gain entry. ▪ Some Israelis were offered a can of Coca-Cola, alcoholic or non-alcoholic beer, a loaf of challah, pizza, pastries or cholent, a meat stew traditionally eaten on the sabbath.
Philippines	<ul style="list-style-type: none"> • Philippines (name of incentive program not identified)¹²³

^{cc} The report listed a figure of IDR 5 million. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 Indonesian Rupiah [IDR] = 0.00028 CAD) ([OECD, 2019](#)).

Jurisdiction/Organization	Summary of Implementation
	<ul style="list-style-type: none"> ○ <u>Type: Financial, Food & Drink</u> <ul style="list-style-type: none"> ▪ The mayor of a small town in the Ilocos Sur province is planning to raffle off a plot of land with a house in December, when he expects vaccines to be available for his community. ▪ Elsewhere in the country, malls serving as vaccination sites are offering free parking and banana fritters.
Russia	<ul style="list-style-type: none"> ● Russia (name of incentive program not identified)¹²⁴ <ul style="list-style-type: none"> ○ <u>Type: Financial</u> <ul style="list-style-type: none"> ▪ In Moscow, anyone over 18 who receives the first of a two-dose vaccine from June 14 until July 11 will be entered into a draw with five cars worth CAD \$47,000^{dd} being given away every week.
Saudi Arabia	<ul style="list-style-type: none"> ● Saudi Arabia (name of incentive program not identified)¹²⁵ <ul style="list-style-type: none"> ○ <u>Type: Restriction</u> <ul style="list-style-type: none"> ▪ Saudi Arabia has announced it will ban people from entering its shopping malls from August unless they have been inoculated.
Serbia	<ul style="list-style-type: none"> ● Serbia (name of incentive program not identified)¹²⁶ <ul style="list-style-type: none"> ○ <u>Type: Financial</u> <ul style="list-style-type: none"> ▪ In Serbia, citizens who had received one or two doses by May 31 could get a one-time payment of about CAD \$36^{ee} - about 5% of the average monthly salary.
United Arab Emirates	<ul style="list-style-type: none"> ● United Arab Emirates 'Everyone is Responsible for Everyone'^{127,128,129} <ul style="list-style-type: none"> ○ <u>Type: Restrictions, Food/Drink</u> <ul style="list-style-type: none"> ▪ The United Arab Emirates will bar individuals from live events including sports, cultural, and arts activities. ▪ For two weeks from May 3, participating gyms and sports clubs are opening their doors to people who have had two doses. The initiative requires residents to produce a COVID-19 'vaccination certificate'. ▪ One chain of restaurants, run by Gates Hospitality, has an offer it's hoping will incentivize vaccination and attract customers: a discount of 10 percent for diners who can show proof they've had the first dose, and 20 percent off for both doses.

^{dd} The report listed a figure of RUB 1 million. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 Russian Rouble [RUB] = 0.047 CAD) ([OECD, 2019](#)).

^{ee} The report listed a figure of USD \$30. The CAD amount was calculated using PPPs as published by the OECD for 2019 (1 United States Dollar [USD] = 1.200 CAD) ([OECD, 2019](#)).

References

- 1 Kreps, Sarah, Nabarun Dasgupta, John S. Brownstein, Yulin Hswen, and Douglas L. Kriner. [Public Attitudes toward COVID-19 Vaccination: The Role of Vaccine Attributes, Incentives, and Misinformation](#). *Npj Vaccines* 6, no. 1 (December 2021): 73.
- 2 Robertson, Christopher T., Daniel Scheitrum, K. Aleks Schaefer, Trey Malone, Brandon R. McFadden, Paul Ferraro, and Kent D. Messer. [Paying People to Take the Vaccine - Would It Help or Backfire?](#) *SSRN Electronic Journal*, 2021.
- 3 Robertson, Christopher T., Daniel Scheitrum, K. Aleks Schaefer, Trey Malone, Brandon R. McFadden, Paul Ferraro, and Kent D. Messer. [Paying People to Take the Vaccine - Would It Help or Backfire?](#) *SSRN Electronic Journal*, 2021.
- 4 Wilf-Miron, Rachel, Vicki Myers, and Mor Saban. [Incentivizing Vaccination Uptake: The 'Green Pass' Proposal in Israel](#). *JAMA* 325, no. 15 (April 20, 2021): 1503.
- 5 Katz GM, Born KB, Balicer RD, et al. [Lessons Learned from Israel's Reopening During a Nationwide COVID-19 Vaccination Campaign](#). *Science Briefs of the Ontario COVID-19 Science Advisory Table*. 2021;2(33).
- 6 Wilf-Miron, Rachel, Vicki Myers, and Mor Saban. [Incentivizing Vaccination Uptake: The 'Green Pass' Proposal in Israel](#). *JAMA* 325, no. 15 (April 20, 2021): 1503.
- 7 Volpp, Kevin G., George Loewenstein, and Alison M. Buttenheim. [Behaviorally Informed Strategies for a National COVID-19 Vaccine Promotion Program](#). *JAMA*, December 14, 2020.
- 8 Largent, Emily A., and Franklin G. Miller. [Problems With Paying People to Be Vaccinated Against COVID-19](#). *JAMA* 325, no. 6 (February 9, 2021): 534..
- 9 Abdullahi, Leila H, Benjamin M Kagina, Valantine Ngum Ndze, Gregory D Hussey, and Charles S Wiysonge. [Improving Vaccination Uptake among Adolescents](#). Edited by Cochrane Effective Practice and Organisation of Care Group. *Cochrane Database of Systematic Reviews*, January 17, 2020.
- 10 Crocker-Buque, Tim, Godwin Mindra, Richard Duncan, and Sandra Mounier-Jack. [Immunization, Urbanization and Slums – a Systematic Review of Factors and Interventions](#). *BMC Public Health* 17, no. 1 (December 2017): 556.
- 11 Crocker-Buque, Tim, Michael Edelstein, and Sandra Mounier-Jack. [Interventions to Reduce Inequalities in Vaccine Uptake in Children and Adolescents Aged <19 Years: A Systematic Review](#). *Journal of Epidemiology and Community Health* 71, no. 1 (January 2017): 87–97.
- 12 Tressler, Stacy, and Ruchi Bhandari. [Interventions to Increase Completion of Hepatitis B Vaccination in People Who Inject Drugs: A Systematic Review and Meta-Analysis](#). *Open Forum Infectious Diseases* 6, no. 12 (December 1, 2019): ofz521.
- 13 Ryan, Rebecca, Nancy Santesso, Dianne Lowe, Sophie Hill, Jeremy M Grimshaw, Megan Pictor, Caroline Kaufman, Genevieve Cowie, and Michael Taylor. [Interventions to Improve Safe and Effective Medicines Use by Consumers: An Overview of Systematic Reviews](#). Edited by Cochrane Consumers and Communication Group. *Cochrane Database of Systematic Reviews*, April 29, 2014.
- 14 Giles, Emma L., Shannon Robalino, Elaine McColl, Falko F. Sniehotta, and Jean Adams. [The Effectiveness of Financial Incentives for Health Behaviour Change: Systematic Review and Meta-Analysis](#). Edited by Hamid Reza Baradaran. *PLoS ONE* 9, no. 3 (March 11, 2014): e90347.
- 15 Bassani, Diego G, Paul Arora, Kerri Wazny, Michelle F Gaffey, Lindsey Lenters, and Zulfiqar A Bhutta. [Financial Incentives and Coverage of Child Health Interventions: A Systematic Review and Meta-Analysis](#). *BMC Public Health* 13, no. Suppl 3 (2013): S30.
- 16 Jarrett, Caitlin, Rose Wilson, Maureen O'Leary, Elisabeth Eckersberger, and Heidi J. Larson. [Strategies for Addressing Vaccine Hesitancy – A Systematic Review](#). *Vaccine* 33, no. 34 (August 2015): 4180–90.
- 17 Thomas, Roger E, and Diane L Lorenzetti. [Interventions to Increase Influenza Vaccination Rates of Those 60 Years and Older in the Community](#). Edited by Cochrane Acute Respiratory Infections Group. *Cochrane Database of Systematic Reviews*, May 30, 2018.
- 18 Hutchinson, Anastasia F., and Sheree M. Smith. [Effectiveness of Strategies to Increase Uptake of Pertussis Vaccination by New Parents and Family Caregivers: A Systematic Review](#). *Midwifery* 87 (August 2020): 102734.
- 19 Adams, Jean, Belinda Bateman, Frauke Becker, Tricia Cresswell, Darren Flynn, Rebekah McNaughton, Yemi Oluboyede, et al. [Effectiveness and Acceptability of Parental Financial Incentives and Quasi-Mandatory Schemes for Increasing Uptake of Vaccinations in Preschool Children: Systematic Review, Qualitative Study and Discrete Choice Experiment](#). *Health Technology Assessment* 19, no. 94 (November 2015): 1–176.
- 20 Abdullahi, Leila H, Benjamin M Kagina, Valantine Ngum Ndze, Gregory D Hussey, and Charles S Wiysonge. [Improving Vaccination Uptake among Adolescents](#). Edited by Cochrane Effective Practice and Organisation of Care Group. *Cochrane Database of Systematic Reviews*, January 17, 2020.
- 21 Crocker-Buque, Tim, Godwin Mindra, Richard Duncan, and Sandra Mounier-Jack. [Immunization, Urbanization and Slums – a Systematic Review of Factors and Interventions](#). *BMC Public Health* 17, no. 1 (December 2017): 556.
- 22 Ryan, Rebecca, Nancy Santesso, Dianne Lowe, Sophie Hill, Jeremy M Grimshaw, Megan Pictor, Caroline Kaufman, Genevieve Cowie, and Michael Taylor. [Interventions to Improve Safe and Effective Medicines Use by Consumers: An Overview](#)

- of Systematic Reviews. Edited by Cochrane Consumers and Communication Group. *Cochrane Database of Systematic Reviews*, April 29, 2014.
- ²³ Bassani, Diego G, Paul Arora, Kerri Wazny, Michelle F Gaffey, Lindsey Lenters, and Zulfiqar A Bhutta. [Financial Incentives and Coverage of Child Health Interventions: A Systematic Review and Meta-Analysis](#). *BMC Public Health* 13, no. Suppl 3 (2013): S30.
- ²⁴ Rashid, Harunor, Jiehui Kevin Yin, Kirsten Ward, Catherine King, Holly Seale, and Robert Booy. [Assessing Interventions To Improve Influenza Vaccine Uptake Among Health Care Workers](#). *Health Affairs* 35, no. 2 (February 2016): 284–92.
- ²⁵ Mantzari, Eleni, Florian Vogt, and Theresa M. Marteau. [Financial Incentives for Increasing Uptake of HPV Vaccinations: A Randomized Controlled Trial](#). *Health Psychology* 34, no. 2 (February 2015): 160–71.
- ²⁶ Yue, Mu, Yi Wang, Chng Kiat Low, Joanne Su-yin Yoong, and Alex R. Cook. [Optimal Design of Population-Level Financial Incentives of Influenza Vaccination for the Elderly](#). *Value in Health* 23, no. 2 (February 2020): 200–208.
- ²⁷ Giles, Emma L., Shannon Robalino, Elaine McColl, Falko F. Sniehotta, and Jean Adams. [The Effectiveness of Financial Incentives for Health Behaviour Change: Systematic Review and Meta-Analysis](#). Edited by Hamid Reza Baradaran. *PLoS ONE* 9, no. 3 (March 11, 2014): e90347.
- ²⁸ Rashid, Harunor, Jiehui Kevin Yin, Kirsten Ward, Catherine King, Holly Seale, and Robert Booy. [Assessing Interventions To Improve Influenza Vaccine Uptake Among Health Care Workers](#). *Health Affairs* 35, no. 2 (February 2016): 284–92.
- ²⁹ Jarrett, Caitlin, Rose Wilson, Maureen O’Leary, Elisabeth Eckersberger, and Heidi J. Larson. [Strategies for Addressing Vaccine Hesitancy – A Systematic Review](#). *Vaccine* 33, no. 34 (August 2015): 4180–90.
- ³⁰ Jarrett, Caitlin, Rose Wilson, Maureen O’Leary, Elisabeth Eckersberger, and Heidi J. Larson. [Strategies for Addressing Vaccine Hesitancy – A Systematic Review](#). *Vaccine* 33, no. 34 (August 2015): 4180–90.
- ³¹ Ryan, Rebecca, Nancy Santesso, Dianne Lowe, Sophie Hill, Jeremy M Grimshaw, Megan Pictor, Caroline Kaufman, Genevieve Cowie, and Michael Taylor. [Interventions to Improve Safe and Effective Medicines Use by Consumers: An Overview of Systematic Reviews](#). Edited by Cochrane Consumers and Communication Group. *Cochrane Database of Systematic Reviews*, April 29, 2014.
- ³² Abdullahi, Leila H, Benjamin M Kagina, Valentine Ngum Ndze, Gregory D Hussey, and Charles S Wiysonge. [Improving Vaccination Uptake among Adolescents](#). Edited by Cochrane Effective Practice and Organisation of Care Group. *Cochrane Database of Systematic Reviews*, January 17, 2020.
- ³³ Crocker-Buque, Tim, Godwin Mindra, Richard Duncan, and Sandra Mounier-Jack. [Immunization, Urbanization and Slums – a Systematic Review of Factors and Interventions](#). *BMC Public Health* 17, no. 1 (December 2017): 556.
- ³⁴ Jarrett, Caitlin, Rose Wilson, Maureen O’Leary, Elisabeth Eckersberger, and Heidi J. Larson. [Strategies for Addressing Vaccine Hesitancy – A Systematic Review](#). *Vaccine* 33, no. 34 (August 2015): 4180–90.
- ³⁵ Rashid, Harunor, Jiehui Kevin Yin, Kirsten Ward, Catherine King, Holly Seale, and Robert Booy. [Assessing Interventions To Improve Influenza Vaccine Uptake Among Health Care Workers](#). *Health Affairs* 35, no. 2 (February 2016): 284–92.
- ³⁶ Bassani, Diego G, Paul Arora, Kerri Wazny, Michelle F Gaffey, Lindsey Lenters, and Zulfiqar A Bhutta. [Financial Incentives and Coverage of Child Health Interventions: A Systematic Review and Meta-Analysis](#). *BMC Public Health* 13, no. Suppl 3 (2013): S30.
- ³⁷ Tressler, Stacy, and Ruchi Bhandari. [Interventions to Increase Completion of Hepatitis B Vaccination in People Who Inject Drugs: A Systematic Review and Meta-Analysis](#). *Open Forum Infectious Diseases* 6, no. 12 (December 1, 2019): ofz521.
- ³⁸ Yue, Mu, Yi Wang, Chng Kiat Low, Joanne Su-yin Yoong, and Alex R. Cook. [Optimal Design of Population-Level Financial Incentives of Influenza Vaccination for the Elderly](#). *Value in Health* 23, no. 2 (February 2020): 200–208.
- ³⁹ Thomas, Roger E, and Diane L Lorenzetti. [Interventions to Increase Influenza Vaccination Rates of Those 60 Years and Older in the Community](#). Edited by Cochrane Acute Respiratory Infections Group. *Cochrane Database of Systematic Reviews*, May 30, 2018.
- ⁴⁰ Adams, Jean, Belinda Bateman, Frauke Becker, Tricia Cresswell, Darren Flynn, Rebekah McNaughton, Yemi Oluboyede, et al. [Effectiveness and Acceptability of Parental Financial Incentives and Quasi-Mandatory Schemes for Increasing Uptake of Vaccinations in Preschool Children: Systematic Review, Qualitative Study and Discrete Choice Experiment](#). *Health Technology Assessment* 19, no. 94 (November 2015): 1–176.
- ⁴¹ Giles, Emma L., Shannon Robalino, Elaine McColl, Falko F. Sniehotta, and Jean Adams. [The Effectiveness of Financial Incentives for Health Behaviour Change: Systematic Review and Meta-Analysis](#). Edited by Hamid Reza Baradaran. *PLoS ONE* 9, no. 3 (March 11, 2014): e90347.
- ⁴² Flodgren, Gerd, Martin P Eccles, Sasha Shepperd, Anthony Scott, Elena Parmelli, and Fiona R Beyer. [An Overview of Reviews Evaluating the Effectiveness of Financial Incentives in Changing Healthcare Professional Behaviours and Patient Outcomes](#). Edited by Cochrane Effective Practice and Organisation of Care Group. *Cochrane Database of Systematic Reviews*, July 6, 2011.

- ⁴³ Till, Sara R, David Everetts, and David M Haas. [Incentives for Increasing Prenatal Care Use by Women in Order to Improve Maternal and Neonatal Outcomes](#). Edited by Cochrane Pregnancy and Childbirth Group. *Cochrane Database of Systematic Reviews*, December 15, 2015.
- ⁴⁴ Barnabas, Ruanne V, Alastair Heerden, Margaret McConnell, Adam A Szpiro, Meighan L Krows, Torin T Schaafsma, Thulani Ngubane, et al. [Lottery Incentives Have Short-term Impact on ART Initiation among Men: Results from a Randomized Pilot Study](#). *Journal of the International AIDS Society* 23, no. S2 (June 2020).
- ⁴⁵ Dolan, Paul, and Caroline Rudisill. [The Effect of Financial Incentives on Chlamydia Testing Rates: Evidence from a Randomized Experiment](#). *Social Science & Medicine* 105 (March 2014): 140–48.
- ⁴⁶ Giles, Emma L., Shannon Robalino, Elaine McColl, Falko F. Sniehotta, and Jean Adams. [The Effectiveness of Financial Incentives for Health Behaviour Change: Systematic Review and Meta-Analysis](#). Edited by Hamid Reza Baradaran. *PLoS ONE* 9, no. 3 (March 11, 2014): e90347.
- ⁴⁷ Till, Sara R, David Everetts, and David M Haas. [Incentives for Increasing Prenatal Care Use by Women in Order to Improve Maternal and Neonatal Outcomes](#). Edited by Cochrane Pregnancy and Childbirth Group. *Cochrane Database of Systematic Reviews*, December 15, 2015.
- ⁴⁸ Barnabas, Ruanne V, Alastair Heerden, Margaret McConnell, Adam A Szpiro, Meighan L Krows, Torin T Schaafsma, Thulani Ngubane, et al. [Lottery Incentives Have Short-term Impact on ART Initiation among Men: Results from a Randomized Pilot Study](#). *Journal of the International AIDS Society* 23, no. S2 (June 2020).
- ⁴⁹ Giles, Emma L., Frauke Becker, Laura Ternent, Falko F. Sniehotta, Elaine McColl, and Jean Adams. [Acceptability of Financial Incentives for Health Behaviours: A Discrete Choice Experiment](#). Edited by Nandita Mitra. *PLoS ONE* 11, no. 6 (June 17, 2016): e0157403.
- ⁵⁰ Friedersdorf, C. (2021, May 14). *Put Anthony Fauci in a Dunk Tank*. The Atlantic. <https://www.theatlantic.com/ideas/archive/2021/05/vaccination-cash-lottery-tickets-americans/618882/>
- ⁵¹ Picard, A. (2021, May 31). *Lotto-Vax? Everyone's a winner with higher vaccination rates, so let's not rule out incentives*. The Globe and Mail. <https://www.theglobeandmail.com/opinion/article-when-you-encourage-vaccination-everyone-is-a-winner/>
- ⁵² Picard, A. (2021, May 31). *Lotto-Vax? Everyone's a winner with higher vaccination rates, so let's not rule out incentives*. The Globe and Mail. <https://www.theglobeandmail.com/opinion/article-when-you-encourage-vaccination-everyone-is-a-winner/>
- ⁵³ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁵⁴ Holder, S. (2021, May 6). *Can Incentives Sway the Vaccine-Hesitant?* Bloomberg. <https://www.bloomberg.com/news/articles/2021-05-06/from-beer-to-cash-cities-dangle-vaccination-perks>
- ⁵⁵ *Ohioans continue to get vaccinated, sign up for next Vax-a-Million lottery drawing*. (2021, May 28). Ohio Department of Health. <https://odh.ohio.gov/wps/portal/gov/odh/media-center/odh-news-releases/odh-news-release-05-28-21>
- ⁵⁶ Kost, H. (2021, June 15). *Alberta Clinical Psychologist Explains Vaccine Lotteries and Behavioural Change*. CBC News. <https://www.cbc.ca/news/canada/calgary/vaccine-lotteries-psychology-alberta-calgary-1.6065462>
- ⁵⁷ *Covid-19 Dashboard*. (2021). Ohio Department of Health. Retrieved June 16, 2021, from <https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/covid-19-vaccine/covid-19-vaccination-dashboard>
- ⁵⁸ *Ohioans continue to get vaccinated, sign up for next Vax-a-Million lottery drawing*. (2021, May 28). Ohio Department of Health. <https://odh.ohio.gov/wps/portal/gov/odh/media-center/odh-news-releases/odh-news-release-05-28-21>
- ⁵⁹ Kost, H. (2021, June 15). *Alberta Clinical Psychologist Explains Vaccine Lotteries and Behavioural Change*. CBC News. <https://www.cbc.ca/news/canada/calgary/vaccine-lotteries-psychology-alberta-calgary-1.6065462>
- ⁶⁰ *Covid-19 Dashboard*. (2021). Ohio Department of Health. Retrieved June 16, 2021, from <https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/covid-19-vaccine/covid-19-vaccination-dashboard>
- ⁶¹ Open for Summer Lottery. (2021). Government of Alberta. Retrieved June 16, 2021, from <https://www.alberta.ca/open-for-summer-lottery.aspx>
- ⁶² Passafiume, A. (2021, June 9). *Manitoba launches vaccine lottery to offer incentives to get a shot, offering \$2-million in prizes*. The Globe and Mail. <https://www.theglobeandmail.com/canada/article-manitoba-launches-vaccine-lottery-to-offer-incentives-to-get-a-shot/>
- ⁶³ Brown, B. (2021, January 14). *Nunavut municipality holds cash draw for vaccinated residents*. CBC News. <https://www.cbc.ca/news/canada/north/nunavut-cash-draw-covid-vaccinations-1.5872160>
- ⁶⁴ Boyd, A. (2021, June 17). *Vaccine lotteries are now in Canada – can they really boost slowing job rates? Here's what we know*. The Star. <https://www.thestar.com/news/canada/2021/06/18/vaccine-lotteries-are-now-in-canada-can-they-really-boost-slowing-job-rates-heres-what-we-know.html>
- ⁶⁵ The Editorial Board. (2021, June 16). The Globe and Mail. <https://www.theglobeandmail.com/opinion/editorials/article-want-canada-to-vax-to-the-max-think-bigger-and-smaller-than-a-vaccine/>
- ⁶⁶ Open for Summer Lottery. (2021). Government of Alberta. Retrieved June 16, 2021, from <https://www.alberta.ca/open-for-summer-lottery.aspx>

- ⁶⁷ Ramsay, C. (2021, June 16). *Alberta's Covid-19 vaccine lottery now includes 40 travel-related prizes*. Global News. <https://globalnews.ca/news/7955110/alberta-covid-19-vaccine-lottery-vacation-packages/#westjet-prizes-include>
- ⁶⁸ Passafiume, A. (2021, June 9). *Manitoba launches vaccine lottery to offer incentives to get a shot, offering \$2-million in prizes*. The Globe and Mail. <https://www.theglobeandmail.com/canada/article-manitoba-launches-vaccine-lottery-to-offer-incentives-to-get-a-shot/>
- ⁶⁹ *Manitoba Vaccination Lottery*. (2021). Protect Manitoba. Retrieved June 18, 2021, from <https://protectmb.ca/lottery/>
- ⁷⁰ Brown, B. (2021, January 14). *Nunavut municipality holds cash draw for vaccinated residents*. CBC News. <https://www.cbc.ca/news/canada/north/nunavut-cash-draw-covid-vaccinations-1.5872160>
- ⁷¹ Hunter, J. (2021, May 21). *From beer to Tinder boosts: The bribes for people to get jabbed*. BBC News. <https://www.bbc.com/news/world-57201111>
- ⁷² *Be Sweet To Your Community Covid-19 Vaccine Offer*. (2021). Krispy Creme Doughnuts. Retrieved June 16, 2021, from <https://www.krispykreme.com/promos/vaccineoffer>
- ⁷³ Nexstar Media Wire. (2021, April 26). WGN-TV. Retrieved June 16, 2021, from <https://wgntv.com/news/vaccinated-white-castle-others-have-freebies-for-you/>
- ⁷⁴ Anheuser-Busch. (2021, June 2). *Anheuser-Busch Teams Up with the White House to Support Goal of Getting 70% of Adults Partially Vaccinated by July 4th*. Retrieved June 16, 2021, from <https://www.anheuser-busch.com/newsroom/2021/06/anheuser-busch-teams-up-with-the-white-house.html>
- ⁷⁵ Artz, J. (2021, May 11). *9 Free Things Businesses Are Offering to Encourage You to Get Your Covid-19 Vaccine*. Global Citizen. <https://www.globalcitizen.org/en/content/covid-19-vaccine-businesses-free-incentives/?template=next>
- ⁷⁶ NFL providing 50 free Super Bowl LVI tickets to vaccinated fans as part of 'Global Citizen's VAX Live'. (2021, May 5). NFL. <https://www.nfl.com/news/nfl-providing-50-free-super-bowl-lvi-tickets-to-vaccinated-fans-as-part-of-globa>
- ⁷⁷ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁷⁸ Johnson, Carla K. and Michelle R. Smith. (2021, April 29) *Free rides and beer: Incentives are added to vaccine drive*. AP News. <https://apnews.com/article/us-news-coronavirus-business-health-09632d90e5ee363aeb988a9a8d5d2fc1>
- ⁷⁹ Grigg, N. (2021, June 2) *As states offer lotteries to get the COVID-19 vaccine, there are no plans like that in Arizona*. ABC 15. <https://www.abc15.com/news/coronavirus/as-states-offer-lotteries-to-get-the-covid-19-vaccine-there-are-no-plans-like-that-in-arizona>
- ⁸⁰ Bacon, J. (2021, June 8) *'Joints for Jabs': Washington state turns to marijuana giveaways to encourage residents to get vaccinated*. USA Today. <https://www.usatoday.com/story/news/health/2021/06/08/washington-state-allows-free-marijuana-covid-vaccine/7598398002/>
- ⁸¹ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁸² *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁸³ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁸⁴ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁸⁵ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁸⁶ Sugden, M. (2021, June 11). *Issue of the day: 'Joints for jabs' in the USA*. The Scotland Herald. <https://www.heraldscotland.com/news/19363168.issue-day-joints-jabs-usa/>
- ⁸⁷ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁸⁸ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- Chicago Launches Concert Series Exclusively for Residents Fully Vaccinated Against COVID*. (2021, May 5). NBC Chicago. Retrieved June 16, 2021, from <https://www.nbcchicago.com/news/local/chicago-launches-concert-series-exclusively-for-residents-fully-vaccinated-against-covid/2502727/>
- ⁸⁹ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁹⁰ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁹¹ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>

- ⁹² *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁹³ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁹⁴ NBC Washington Staff. (2021, May 5). *Maryland to Offer Lottery Prizes Up to \$400K for Getting Covid-19 Vaccine*. NBC Washington. <https://www.nbcwashington.com/news/coronavirus/maryland-to-offer-lottery-prizes-up-to-400k-for-getting-covid-19-vaccine/2678446/>
- ⁹⁵ Mitchell, S. (2021, May 13). *Ledo Pizza offering free cheese pizza to Md. Residents who get vaccine in May and June*. 7News. <https://wjla.com/news/local/ledo-pizza-offering-free-cheese-pizza-md-residents-get-vaccine-may-june>
- ⁹⁶ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁹⁷ Levin, J. and Goldberg, C. (2021, June 4). *Bribing People to Get Inoculated Just Might Be Working in U.S.* Bloomberg News. <https://www.bnnbloomberg.ca/bribing-people-to-get-inoculated-just-might-be-working-in-u-s-1.1612741>
- ⁹⁸ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ⁹⁹ Hunter, J. (2021, May 21). *From beer to Tinder boosts: The bribes for people to get jabbed*. BBC News. <https://www.bbc.com/news/world-57201111>
- ¹⁰⁰ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹⁰¹ Loo, N. (2021, May 21). *Vaccine incentives: Which states are offering the chance to become a Covid-19 millionaire*. NewsNation Now. <https://www.newsnationnow.com/health/coronavirus/vaccine-incentives-which-states-offering-you-the-chance-to-become-a-covid-millionaire/>
- ¹⁰² *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹⁰³ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹⁰⁴ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹⁰⁵ Zaveri, M. (2021, May 26) *New York's latest vaccination incentive: a full-ride scholarship to a public state college*. The New York Times. <https://www.nytimes.com/2021/05/26/nyregion/new-york-covid-vaccine-college.html>
- ¹⁰⁶ Schulz, D. (2021, May 13). *All the free stuff and discounts you can get in NYC if you're vaccinated*. 6sqft. <https://www.6sqft.com/all-the-free-stuff-and-discounts-you-can-get-in-nyc-if-youre-vaccinated/>
- ¹⁰⁷ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹⁰⁸ Robertson, C. (2021, May 19). *Paying people to get vaccinated might work – but is it ethical?* The Conversation. <https://theconversation.com/paying-people-to-get-vaccinated-might-work-but-is-it-ethical-160959>
- ¹⁰⁹ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹¹⁰ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹¹¹ McCarthy, E., McDaniel, J., and Steele, A. (2021, May 29). *Can water ice, booze, and cash encourage the unvaccinated and ambivalent to get shots? Philly-area officials are finding out*. The Philadelphia Inquirer. <https://www.inquirer.com/health/coronavirus/vaccine-cash-lottery-incentives-pennsylvania-nj-20210529.html>
- ¹¹² *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹¹³ Jimenez, Jesus. (2021, June 7). *Washington State allows for free marijuana with Covid-19 vaccine*. The New York Times. <https://www.nytimes.com/2021/06/07/us/washington-marijuana-covid-vaccine.html>
- ¹¹⁴ Kubota, S. (2021, May 11). *Chef Jose Andres gives out \$50 gift cards for getting vaccinated*. MSNBC. <https://www.today.com/food/chef-jos-andr-s-gives-out-50-gift-cards-getting-t218003>
- ¹¹⁵ *Covid-19 Vaccine Incentives*. (2021, June 15). National Governors Association. Retrieved June 16, 2021, from <https://www.nga.org/center/publications/covid-19-vaccine-incentives/>
- ¹¹⁶ Whitley, A. (2021, May 30). *Qantas Offers Unlimited Flights in Biggest Vaccine Incentive*. Bloomberg News. <https://www.bnnbloomberg.ca/qantas-offers-unlimited-flights-in-biggest-vaccine-incentive-1.1610641>
- ¹¹⁷ Fournier, G. (2021, May 30). *A World War II hub for German U-boats is now a French vaccination center*. The New York Times. <https://www.nytimes.com/live/2021/05/30/world/covid-vaccine-coronavirus-mask#france-vaccine-submarine-base>

-
- ¹¹⁸ Ancheta, Tatum. (2021, June 16). *Your guide to vaccine incentives and prizes in Hong Kong*. TimeOut. <https://www.timeout.com/hong-kong/things-to-do/your-guide-to-vaccine-incentives-and-prizes-in-hong-kong>
- Dong, J. and Jett, J. (2021, June 3) *Hong Kong Is Dangling Incentives to Get Vaccinated. That May Not Be Enough*. The New York Times. <https://www.nytimes.com/2021/06/03/world/asia/hong-kong-vaccine.html>
- Berger, M. (2021, June 6). *In countries where vaccines are available, offers of free airline tickets and apartments for the fully vaccinated*. The Washington Post. <https://www.washingtonpost.com/world/2021/06/06/coronavirus-vaccine-incentives/>
- ¹¹⁹ Lih Yi, B. (2021, February 23). *Jakarta will fine people who refuse Covid vaccines. Will it work?* Thomson Reuters Foundation News. <https://news.trust.org/item/20210223133903-1yqor/>
- Elks, S. (2021, June 14). *Carrot or stick? How countries are tackling Covid-19 hesitancy*. Thomson Reuters Foundation News. <https://news.trust.org/item/20210601155421-gr1fs/>
- ¹²⁰ Berger, M. (2021, February 5). *Discounts, tax breaks and bonuses: How governments and employers are incentivizing coronavirus vaccination*. The Washington Post. <https://www.washingtonpost.com/world/2021/02/05/coronavirus-vaccine-incentives-discounts-bonuses/>
- ¹²¹ Sullivan, H. (2021, April 14). *A gold nose pin, boxes of eggs, or a tax rebate: Covid vaccine incentives around the world*. The Guardian. <https://www.theguardian.com/world/2021/apr/14/a-gold-nose-pin-boxes-of-eggs-or-a-tax-rebate-covid-vaccine-incentives-around-the-world>
- ¹²² Berger, M. (2021, June 6). *In countries where vaccines are available, offers of free airline tickets and apartments for the fully vaccinated*. The Washington Post. <https://www.washingtonpost.com/world/2021/06/06/coronavirus-vaccine-incentives/>
- ¹²³ Berger, M. (2021, June 6). *In countries where vaccines are available, offers of free airline tickets and apartments for the fully vaccinated*. The Washington Post. <https://www.washingtonpost.com/world/2021/06/06/coronavirus-vaccine-incentives/>
- ¹²⁴ Balmforth, T. (2021, June 13). *Moscow to give away free cars to spur people to get Covid vaccine*. Thomson Reuters Foundation News. <https://news.trust.org/item/20210613103719-5ec0d/>
- ¹²⁵ Elks, S. (2021, June 14). *Carrot or stick? How countries are tackling Covid-19 hesitancy*. Thomson Reuters Foundation News. <https://news.trust.org/item/20210601155421-gr1fs/>
- ¹²⁶ Berger, M. (2021, June 6). *In countries where vaccines are available, offers of free airline tickets and apartments for the fully vaccinated*. The Washington Post. <https://www.washingtonpost.com/world/2021/06/06/coronavirus-vaccine-incentives/>
- ¹²⁷ Berger, M. (2021, February 5). *Discounts, tax breaks and bonuses: How governments and employers are incentivizing coronavirus vaccination*. The Washington Post. <https://www.washingtonpost.com/world/2021/02/05/coronavirus-vaccine-incentives-discounts-bonuses/>
- ¹²⁸ Elks, S. (2021, June 14). *Carrot or stick? How countries are tackling Covid-19 hesitancy*. Thomson Reuters Foundation News. <https://news.trust.org/item/20210601155421-gr1fs/>
- ¹²⁹ Staff reporter. (2021, May 2). *Covid Dubai: Fully vaccinated residents to get free access to top gyms*. *Khaleej Times*. <https://www.khaleejtimes.com/coronavirus-pandemic/covid-dubai-fully-vaccinated-residents-to-get-free-access-to-top-gyms>