

## Mandatory Immunisation Policy by Ruler from Syariah Perspective

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### Abstract

Islam highly emphasises on life preservation as dictated in *maqasid syariat* and rejects any harm. One of the forms of harm rejection is by having immunisation. Immunisation is a method of prevention method for dangerous illnesses proved effective though activation of body's immunity opposing contagious disease. However, effectiveness for mass protection of disease and total disease eradication can only be achieved through total participation of community for establishment of herd immunity. History proved that polio and smallpox has been eradicated at global level through comprehensive access of immunisation. Unfortunately, recently there is a group who reject and even anti to vaccine until the world re-experience spread of diseases that are nearly vanished such as diphtheria, pertussis, measles, and rubella, besides diseases such as pneumococcal and meningococcal that have not been vaccinated completely yet. This study aims to elaborate on the need of establishing immunisation policy by the government side viewed from Syariah perspective. Methodology of this study is of qualitative research. Data were obtained through document analysis by referring to books of *fiqh*, *maqasid*, *qawaid fihiyyah* and current fatwas together with statistics and guidelines from world and Malaysian health agency. Interview method with informants who are expertises in both medical and Syariah field and also medical authority was performed. Data collected were analysed and elaborated through inductive, deductive, extractive and comparative methods to achieve the determined objectives. This study found that vaccine taking by every Muslim individual to form herd immunity to protect Muslim community is an action necessary of obligation among the citizens, looking at its great benefit to the citizens at this time. *Siyasah Syariyyah* principle also demands that 'action of ruler to his people must be based on *maslahah* and it can be made reference for the ruler in enforcing mandatory immunization policy'.

**Keywords:** Immunisation, Mandatory, Herd Immunity, Siasah Syariyyah, Policy, Ruler

## Introduction

Immunisation is the best medical achievement in this modern era in eradicating and controlling contagious disease. This is done through vaccine application. Vaccine does not only prevent contagious disease, chronic illness, cancer and death, indeed it is proved to elevate economic development and educational level of a nation (*World Health Organization*, 2019). Complication and death avoided through vaccination can reduce various long term costs involving treatment costs, work productivity and national treasure (Zakuan, 2019). Immunisation is agreed to succeed in prevention of 2-3 million casualties each year and able to save 1.5 million lives more if its coverage is more comprehensive (WHO, 2019).

Islamic laws basically accept immunization process as permitted and beneficial and can remove harm from its people. Immunisation complies with preservation of *daruriyat khams* principles which are preservation of religion, life, mind, lineage and property which are highly demanded by Islamic laws (Umar, 2019; Hidayah, 2017; Irwan, 2016; KKM & JAKIM, 2015; Fadl, 2008). It is also regarded as *fardu kifayah* responsibility as mass disease protection and total disease eradication can only be achieved through total participation by the community to establish herd immunity (Suhazeli & Faidhi, 2019). As a result, WHO reported that *smallpox* has been eradicated from the world. Lately, polio disease is also nearly extinct from the world except in three Islamic countries which are Pakistan, Afghanistan and Nigeria (WHO, 2019).

Unfortunately, recently, there are a group of people who oppose and even anti to vaccine until the world re-experience spread of diseases that are nearly eradicated such as *diphtheria*, *pertussis*, *measles*, and *rubella*, besides diseases such as *pneumococcal* and *meningococcal* that have not been vaccinated completely yet. After almost 70 years that government has organised National Immunisation Program encompassing 12 types of contagious disease, immunisation coverage of diseases such as *Measles* and *Rubella* have still not been achieved yet. Latest, around 2017-2018 witnessed a surge in cases and deaths due to *measles*, *rubella*, *diphtheria* and *pertussis*, (interview, 2019) and Ministry of Health confirmed that the involved children did not take vaccine (Syarafiz, 2019).

Minister of Health admitted that this outbreak recurred due to immunization decline in consequent to propaganda by anti-vaccine group (Zin, 2019). Following that, there was urge from many sides either at governmental or citizen level who want mandatory immunisation policy in Malaysia to form as formed by developed countries (*Sinar Harian*, 2019). This means that all citizens are obligated to vaccinate children according to schedule of National Immunisation Program without failure. Particular penalty or prohibition of schooling and nursery for children will be enforced if there are parents who refuse to take vaccine. This suggestion has already reached discussion level in Ministry of Health and to be presented to cabinet and parliament (Bernama, 2019). Meanwhile, there are group from professional agency (Rohman, 2019), and over 80,000 citizens had signed petition to execute this immunisation mandatory policy (Radhi, 2019).

However, MacDonald et al. (2018) and Salmon (2002) pinpointed stance from expert of public health policy suggesting that this mandatory immunisation policy if formed, it must consider the nation's socio-cultural context. Therefore, in context of Malaysia country in which majority are Muslims, this problem should be investigated from Islamic perspective.

This study aims to analyse the necessity of Malaysian government to oblige mandatory vaccine from Syariah perspective. This mandatory immunization issue is a current issue arising in year 2019 and there are not much specific writings on it be done. However, a few early studies by Anuar (2019), Umar (2019), Zahra et al. (2017) permitted government's action for obligation of vaccination for the sake of *maslahah* and avoiding harm. There are also studies supporting the policy performed by health authorities through National Immunisation Program before this by explaining on the permissibility and halal status of prepared vaccine (Hidayah et al., 2017; Norhidayah, 2017; Irwan, 2016; Musa et al., 2015; Suhazeli, 2014). Several medical and health journals meanwhile touched on problem of immunisation rejection worsening in Islamic countries and Malaysia (Ahmed, 2018; Jannah, 2018) and immediately suggested policy or act of mandatory immunisation by the government as exemplified by other countries (MacDonald et al., 2018; Lee & Robinson, 2016; Omer et al., 2009)

### **Methodology**

Methodology of this study was of qualitative research. Data obtained were analysed through document analysis by referring to books of fiqh, *maqasid*, *qawaid fiqhiyyah* and current fatwas together with statistics and guidelines from world and Malaysian health agency. Interview method with informants who are experts in both medical and Syariah field and also medical authority was performed. Data collected were analysed and elaborated through inductive, deductive, extractive and comparative methods to achieve the determined objectives.

### **Findings of Study**

Vaccine taking helps a lot in constraining the spread of various dangerous contagious diseases in Malaysia in era of year 1960s and 1970s. Nevertheless, unfortunately recently arises rejection to vaccine by certain groups in Malaysia and their reasons vary.

#### *Reasons of Doubt and Rejection to Immunisation*

Deputy Minister of Health Malaysia stated, the main reason of decline in immunisation coverage now is due to presence of propaganda by anti-vaccine movement influencing parents until posing of negative effects to children's health (Jazimah, 2019). Between propagandas and reasons of this group to reject vaccine are (Izza, 2016):

- a. Vaccine poses serious side effects until causing death, even though there is no data or statistics proving the claim.
- b. Vaccine contains dangerous ingredient as it is made from virus besides containing mercury and aluminum.
- c. Vaccine contains prohibited ingredient which is swine DNA.
- d. Vaccine can cause autism as in an old research by Andrew Wakefiel which was retracted (Syarafiz, 2019).
- e. Vaccine is a Western conspiracy to weaken Muslim community (Ahmed et al., 2018).
- f. 3C Mentality (Complacency, Confidence, Convenience) thinking that it is all right for their children not vaccinated as many of those who had taken vaccine then herd immunity has already been established (Rozita, 2019). From aspect of behavioural psychology, the phenomenon experienced by this anti-vaccine group was explained as Dunning-Kruger Effect in which someone is ignorant of his own

ignorance and feeling that he knows everything (Anuar et al., 2019; Dunning, 2011).

Ministry of Health Malaysia through the statement of its Director General is on guard of spread of corrupted information in social media sites by anti-vaccine group. They blindly claim that immunisation administered by the government brings many bad effects and has no benefit. He pinpointed WHO's statement vaccine rejection is a threat for global health in year 2019 besides quoting statistics of increase in cases of disease preventable by vaccine in Malaysian recently (Hisham, 2019). Ahmed et al. (2018) summarised that this phenomenon is caused by misunderstanding from parents who are influenced by viral propaganda in social media.

The same situation also happens in developed countries. United States of America (USA), measles cases escalated at 20% which is the highest in history in April 2009 until authority in several places declared state of emergency. The most saddening one, the most affected area by the outbreak in New York now is facing the anti-vaccine group challenging the authority which is in attempt of obligating immunisation through laws (AFP, 2019). Bozzola *et. al.* (2018) together with his friends from Italian Pediatric Association blamed the anti-vaccine group for the decline in vaccine coverage and elevation in risk of disease outbreak. Among the campaigns of this anti-vaccine group involves dissemination of fake news and it is added by lack of information on the parents' side. Tim a pediatric expert opined that enforcement of mandatory vaccination is an effective strategy to face this movement and prevent outbreak spread.

### **The Need for Vaccine Mandatory Policy in Malaysia from Syariah Perspective**

Looking at the report posed by Ministry of Health Malaysia above, it is necessary if immunisation is obligated to all citizens for the following reasons:

#### ***a. Many Countries in the World Mandate Vaccine***

Most of countries that possess mandatory vaccine laws are developed countries, where unvaccinated children are prohibited from entering school, kindergarten and playground. Besides that, there is special incentive given to vaccinated children such as tax rebate, and bonus for schooling and medical expenditure. There is variation of implementation for this policy among the countries especially involving the number of vaccine provided. Among the countries mandating immunisation (Walkinshaw, 2011) are:

- a. All states in USA as a condition of school admission
- b. A number of three states in Canada enforce vaccine.
- c. Australia separate unvaccinated children from attending school during outbreak and provide tax incentive if the children fulfill vaccine schedule.
- d. Latvia oblige national institutions to provide vaccine.
- e. Slovenia pose fine for those who fail to get vaccine.
- f. A number of 11 from 35 European Union countries (35.4%) performed mandatory vaccine for children between 9 to 10 vaccines such as *tetanus, diphtheria, pertussis, Haemophilus influenza type B, Hepatitis B, poliovirus, mumps, measles, rubella* (Bozzola et al., 2018).

In the researcher's study so far, there is no Islamic country who execute act or laws of mandatory vaccine for children. If present, it only acts to handle state of emergency during current outbreak such WHO's declaration and world agency for eradication of polio in three Muslim countries (Musa et al., 2015). Due to that, a part of territory in Pakistan enforce prison sentence for parents who reject polio vaccine (Ahmed, 2018). Besides that, Saudi Arabia also oblige seasonal vaccine which is only during pilgrimage season as a condition to obtain pilgrimage visa for the Pilgrims who come from all over the world (The Embassy of the Kingdom of Saudi Arabia, 2019).

**b. Mandatory Immunisation Brings Great Benefit**

History has proved that experience by states in USA obligating laws of *smallpox* vaccine as early as year 1800s has shown success of eradicating *smallpox* in AS and the whole world. Meanwhile, introduction of *varicella* vaccine as a compulsory condition for school admission in USA has led to a drastic decline of *chickenpox* cases (Ahmed, 2016). A study by Lee & Robinson (2016) concluded that mandatory immunisation for school admission in US, Canada and France produced an increase in immunisation taking besides having a high taking rate for a long term.

According to Walkinsham (2011), when a vaccine is not recognised as mandatory, it is considered as not important and unneeded. For example, Italy previously did not mandate *measles* vaccine, the vaccine coverage was only 87%. Thus *measles* outbreak occurred, then immediately Italy widened the enforcement of mandatory immunisation for this vaccine. Simply, mandatory immunisation will elevate immunisation coverage to reduce risk of contagious disease outbreaks that claim casualties.

High vaccine coverage will also facilitate in protection of group with compromised immunity among the community through establishment of herd immunity. Among the community, there exist a group who are prevented from taking vaccine such as cancer and *autoimmune* patients. Therefore, mass vaccine taking could prevent this weak group from contracting infection (MacDonald et al., 2018; Musa et al., 2015). This is aligned with the call from al-Quran that its people must protect each other. Allah said;

Translation: (Why do Our gift they deny?) Are they in power of dividing (spiritual and religious matters that become the greatest of) your God's bounties (O Muhammad, as like We are only powerful of material and worldly matters only? They do not deny): We divided between them all their life needs in this worldly life, (some of them we made rich and some of them poverty-stricken); and also We have made the status of some of them higher than the status of others; (all that) as some of them can easily get assistance in life undertaking from (help) of some others. And more your God's bounties (that encompass happiness of the world and hereafter) are better than mere materials and worldly matters that they gather.  
(al-Quran, 43:32)

**c. Suitable with Usul Fiqh View**

Usul Fiqh is an important subject in Islam. Usul fiqh evidences can be made reference in discussing the ruler's action implementing this mandatory immunisation. The researcher

states two methods of *usul fiqh* complying with this matter. Although these *usul fiqh* methods are classified as *zanni* (unsure) evidence, but it is important as legal instrument and source.

#### ***i. Masalih Mursalah***

*Maslahah al-mursalah* as defined by scholars such as Al-Ghazali, Muhammad Abu Zahrah and Wahbah Zuhayli is the *maslahah* for new issues having no specific evidence, but complies with *Maqasid Syariah* demand (Johari, 2018). Fahmi (2018) meanwhile summarised the conditions for *Masalih Mursalah* to serve as a law evidence as lined by Imam as-Syatibi and Abdul Fattah Muhammad's research which are involvement on beneficial *maslahah*, public nature, not contradicting with *nas*, aligning with *maqasid syarak*, logical and acceptable by mind and must determine that the *maslahah* is to preserve *daruri* matters or to prevent difficulty.

In context of mandatory immunisation policy or act by the ruler, this step fulfills conditions for recognition as *maslahah mursalah* as stated. Even though there is no *nas* or example done by other Islamic countries previously for reference, benefit from implementation of this mandatory policy is believed to be able to preserve *dariruyat khams* which are highly demanded by *syarak* (Jannah, 2018; Hidayah, 2017). This action in fact has no difference with the government's measure if enforcing traffic laws punishing and fining citizens disobeying speed limit, vehicle registration and license renewal. All fall under *masalih mursalah* (Fahmi, 2018).

#### ***ii. Sadd al-Zariah***

*Sadd al-zariah* is another method that can be regarded as source of law in this problem. Result of definition by many scholars which is similar in majority, the term *sadd az-zariah* means to prevent, block or cut the way bringing to harm and danger (Fauzi, 2017). Scholars also lined the conditions in determining something as *sadd az-zariah* which are involving action permitted originally, but bringing to harm if permitted, harm from the action is more obvious than *maslahah* and if the probability of the action's harm is at the same level as for the goodness, then avoiding harm is preferred.

In this problem, leaving existing policy where community still have the right to vaccinate children or not seems to bring more harms due to disseminated propaganda by anti-vaccine group besides parents who are not well-versed with understanding of benefit and importance of mass immunisation. The vaccination practice itself has been recognised by scholars as *sadd az-zariah* in constraining contagious disease (Umar, 2019; Fauzi, 2017; Irwan, 2016). Thus, mandatory immunisation policy to the citizens closes the door for anti-vaccine radical group and prevents disease spread.

#### **d. Compatible with Related Fiqh Methods**

Fiqh methods are main bases of fiqh which are comprehensive (*kulliyyah*) in nature in the form of concise constitutional text containing general and issue-specific legislative laws (definition by al-Zarqa from Manan, 2005). It is not regarded as *syarak* evidence, but as a legislative summary easing referential process for fiqh problems and various laws to *syarak* principles.

Basic fiqh methods in concluding this problem is the fiqh method related to harm (*darar*) which is “No harm and does not harm others”. Umar (2019) together with research team of Federal Territory Mufti Office quoted this method as a reference for community to take vaccine to avoid self-harm and to others, besides being a reason for authorities to convey order of obligation for vaccination to the citizens and their children. Meanwhile, methods derived and related to this harmfulness method support more the permissibility of mandatory immunisation (al-Syarbini, 2014), among them are:

- i. “Harm or damage must be removed”.
- ii. “Heavier harm is removed by lighter harm”.
- iii. “When two harms coincide, heavier harm must be solved by performing lighter harm”.
- iv. “Specific harm must be born to avoid public harm”.
- v. “Avoiding harm is prioritised than bringing benefit” (al-Suaidan, n.d).

Based on all above methods, it can be concluded that outbreak spread is a public and large harm that must be removed. While small and light risk such as pain during vaccine injection and personal opinion of specific nature in rejecting vaccine should not be upraised more than public health interest. Therefore, mandatory immunisation complies with the above fiqh methods in preventing harm of disease outbreak.

#### **d. Compatible with *Siyasah Syariyyah***

The ruler’s action in this case in direct is subject to *Siyasah Syariyyah* framework. *Siyasah Syariah* is defined by Ibn-Aqil as an action by the leader that can save public and avoid them from destruction, even though the action was not performed by Rasulullah s.a.w. or there is no revelation related to the matter (quoted from *al-Turuq al-Hukmiyyah Fi al-Siyasah al-Syariyyah* by Ibn-Qayyim, in Bharuddin, 2010). The objective of law implementation according to *Siyasah Syariah* is to guarantee public interest and communal benefit. Thus, the laws in this matter are of flexible nature depending on *ijtihad* and intellect (wisdom) of the ruler (Tarmizi, 2018).

Obligation and priority of the ruler are always to prioritise benefit and interest of the citizens comprehensively. This is contained in an important fiqh method regarding *Siyasah Syariah* which is:

Translation: *Ruler’s action to the citizens must depend on masalahah* (al-Suyuti, n.d).

Leadership trust to preserve people’s benefit is not a playful trust, later it will be questioned in the Hereafter as Rasulullah s.a.w said:

Translation: *There is no wali (ruler) trusted to lead his people from the Muslims then he dies in condition of betraying his people, except Allah will forbid paradise for him* (al-Bukhari: 7151 and Muslim: 142).

In attempt of the ruler to gain wisdom and rationality to perform this mandatory policy, the ruler should seek advice and recommendation from experts or specialists comprising of medical and religious personnel. Mufti of Kelantan stated that community has no right of determining a matter which is not in their expertise. In the case of immunisation, health

authority is more qualified to provide recommendation for the importance of practice and enforcement of this policy (Hakiem, 2016). This is compatible with al-Quran's suggestion that its people must always ask them who are the experts or *ahl al-Zikr*.

Translation: *And We did not send (the messengers) before you (Muhammad), except that they were several men that We sent revelation upon them, then do ask those who are knowledgeable, if you do not know.*  
(al-Quran, 21: 7)

Dato' Dr. Zulkifli Ismail, (interview, 2019) a pediatrician consultant now serving as Secretary General, *Asian Pacific Pediatric Association (APPA)* opined that this is the time for the government to execute mandatory immunisation act upon reappearance of vaccine-prevented diseases such as *measles, diphtheria* and *pertussis* due to elevation of corruption and refusal of community to vaccine. From perspective of contemporary fiqh studies, this implementation also complies with *Fiqh Ma'alat* intention analysing the result or effect from application of this policy in the future, and also with *Fiqh Muwazanah* performing arbitration of *masalah* and *mafsadah* in its implementation. Finally, the ruler's action in mandating this immunisation does not only results in comprehensive vaccination coverage and equal health access regardless of one's status and property, in fact it can uphold human dignity and glory (*karamah insaniyah*) through justice (*'adalah*) and equality (*musawah*) among community under his auspices.

### Conclusion

Looking at the campaign to constrain immunisation among the people done intensively either within or outside of country, and the bad effects raised by it to the people, it is necessary for mandatory immunisation to be established in Malaysia. Steps towards mandatory immunisation act however is not denied complex. Government should ensure the financial capability, continuous supply and access to vaccine (MacDonald et al., 2018). Besides approving act and enforcement, side mechanism such as counselling and awareness education should move together. Issue of vaccine *halal* status and safety should also be handled by the government by considering the existence of local vaccine industry.

This study however becomes the continuity of various previous studies according to Syariah perspective, but it specifically refers to mandatory immunisation policy by the government permitted by *Syariah* according to *usul fiqh* methods, *fiqh* methods and *siyasa Syariyyah*. Further studies from aspect of laws, socio-culture and education should be accelerated and integrated as a contribution for the government in analysing implementation of mandatory immunisation act in our nation.

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### References

Fadl, M. E. A. (2008). *An Intrduction to Islamic Medical Jurisprudence*. South Africa. Islamic Medical Association of South Africa.



- Jalil, B. A. (2013). Konsep Siyasa Syariyyah dan Pelaksanaannya dalam Konteks Malaysia. *Kertas Kerja Seminar Kebangsaan Pelaksanaan Siyasa Syariyyah Dalam Konteks Masa Kini: Isu Dan Cabaran*, organised by Kolej Universiti Islam Melaka (KUIM).
- Manan, I. A. (2005). Kaedah-kaedah Fqih: Satu Pengenalan Ringkas. *Kajian Syariah dan Undang-Undang – Siri 2*.
- Akmal, F. (2017). *Konsep Saddu Zara’l dalam Penyelesaian Fatwa di Malaysia*. <http://akmalfauzi61.blogspot.com/2017/>. Accessed on 15 September 2019.
- Al-Suaidan, W. R. (n.d). *Qawaid as-Syariyyah fi al-Masail al-Tibbiyyah*
- Ali, A. A. (t.t.). *Tatbiq al-Qawaid al-Fighiyyah ‘ala al-Masail al-Tibbiyyah*. Riyadh.
- As-Syarbini. K. (2014). *Al-Iqna’ fi Hal Alfaz Abi Syuja’*. Mesir: Darul Hadith.
- Bharudin, C. P., Arni, B. S., & Shukeri, M. (2010). Pelaksanaan Siyasa Syariyyah dalam Pentadbiran di Malaysia. *Jurnal al-Tamadun*. 5, 57-72. Kuala Lumpur: Universiti Malaya.
- Bozzola, E., Spina, G., Russo, R., Bozzola, M., Corsello, G., & Villani, A. (2018). Mandatory vaccinations in European countries, undocumented information, false news and the impact on vaccination uptake: the position of the Italian pediatric society. *Italian Journal of Pediatrics* 44(67). doi.org/10.1186/s13052-018-0504-y.
- Dunning, D. (2011). The Dunning-Kruger Effect: On Being Ignorant of One’s Own Ignorance. *Advances in Experimental Social Psychology* 44, 247-296. Science Direct. <https://doi.org/10.1016/B978-0-12-385522-0.00005-6>. Accessed on 15 September 2019.
- Nuraishah, E. Z. E., Azizul, M. K., Athirah, A., & Azura, S. I. (2018). Vaccination: Influencing Factors and View from an Islamic Perspective. *International Medical Journal Malaysia* 17(2), 373-280. Pahang: IIUM.
- Fauwaz, F. (2015). *Fiqh Medic*. Kuala Lumpur: Telaga Biru.
- Immunise4Life, (t.t.) *Panduan Menangani Ibu Bapa yang Ragu Terhadap Vaksin*. Kuala Lumpur.
- Irwan, S. (2016). Pencegahan Penyakit Melalui Kaedah Pelalian Menurut Perspektif Islam. *Ulum Islamiyah Journal*. 17, 57-77. Negeri Sembilan: USIM.
- Jamiatul, A. M. S. (2019). Ketua Penolong Pengarah Kanan, Bahagian Kawalan Penyakit, Kementerian Kesihatan Malaysia, interview in August 2019.
- Kementerian Kesihatan Malaysia & Jabatan Kemajuan Islam Malaysia. (2015). *Soalan Lazim Mengenai Vaksin Dan Imunisasi*. Malaysia: KKM. moh.gov.my.
- Khair, J. A. (2018). *Penggunaan konsep masalah dalam kalangan ulama kontemporari suatu tinjauan*. <https://www.researchgate.net/> Accessed on 15 September 2019.
- Lee, C., & Robinson, J. L. (2016). Systematic review of the effect of immunisation mandates on uptake of routine childhood immunizations. *Journal of Infection*. 72(6), 659-666. Elsevier. <https://doi.org/10.1016/j.jinf.2016.04.002>. Accessed in September 2019.
- Luqman, T. (2018). Isu Perkahwinan Kanak-kanak Menurut Perspektif Siyasa Syariyyah. *Bayan Linnas Siri ke-145*. Putrajaya: Pejabat Mufti Wilayah Persekutuan.
- Anuar, R. M., Fatimah, A. T. M. F., & Fahimah, M. R. N. (2019). Autoriti Kerajaan Dalam Mewajibkan Vaksinasi Kanak-kanak: Kajian Menurut Perspektif Hukum Islam. *UMRAN - International Journal of Islamic and Civilizational Studies* 2, 21-35. Kuala Lumpur: UTM Press.
- Fahmi, R. M. (2018). Undang-undang Jalan Raya dan Kaitan dengan Dalil Masalah Mursalah. *Irsyad Usul al-Feqh Siri ke-21*. Putrajaya: Pejabat Mufti Wilayah Persekutuan. <https://muftiwp.gov.my/ms/artikel/irsyad-usul-fiqh/>. Accessed in September 2019.

- Musa, N., Aisyah, I. S., & Chan, L. J. (2015). *Immunisation Controversies*. Kuala Lumpur: Islamic Medical Association Malaysia.
- Hisham, A. N. (2019). Penyebaran Maklumat Tidak Sahih Berkaitan Imunisasi. *Kenyataan Akhbar KPK*. <https://kpkkesihatan.com/>. Accessed on 15 September 2019.
- Norhidayah, P., & Saadan, M. (2017). Masalah dalam Vaksinasi: Analisis Fatwa Malaysia dan Indonesia. *Journal Fiqh* (14), 27-50.
- Hidayah, S. A. N., & Adib, S. M. (2017). Sorotan Literatur Terhadap Isu Penerimaan dan Penolakan Vaksin Menurut Perspektif Islam. *Al-Qanatir – International Journal of Islamic Studies*. 8 (2). eISSN: 2289-9944.
- Jannah, M. K. N., & Zuhaira, N. Z. (2018). Compulsory Vaccination for Children in Malaysia: Legislation and Realisation. *Yuridika Fakultas Hukum Universitas Airlangga* 33 (3), 402-416. Surabaya: Universitas Airlangga.
- Rozita, A. R. (2019). 'Vaccine Hesitancy & Refusal' di Malaysia, *dalam Lecture Notes: Immunisation Educators Training and Accreditation Program*. Kuala Lumpur: Immunise4Life.
- Saad, O., Salmon, D. A., Orenstein, W. A., DeHart, M. P., Halsey, N. (2009). Vaccine Refusal, Mandatory Immunization, and the Risks of Vaccine-Preventable Diseases. *The New England Journal of Medicine* (360), 1981-1988. DOI: 10.1056/NEJMsa0806477
- Salmon, A. (2002). Mandatory Immunization Laws and the Role of Medical, Religious and Philosophical Exemptions. *Vaccinesafety.edu*.
- Aisyah, I. S. (2014). *Kontroversi Imunisasi*. Jakarta: Pustaka Al-Kautsar.
- Sohana, A. H. (n.d). Anti-Vaksin: Apa Natijahnya Kepada Masyarakat? *Journal of Social Sciences and Humanities*. 16(2), 1-5. ISSN: 1823-884x.
- Suhazeli, A., & Faidhi, M. Z. (2019). Imunisasi Menurut Keperluan Agama, *dalam Lecture Notes: Immunisation Educators Training and Accreditation Program*. Kuala Lumpur: Immunise4Life.
- Suhazeli, A. (2014). *Vaksin untuk Bayi Anda: Mitos vs Realiti*. Selangor: Persatuan Amal Perubatan Isnu Sina Malaysia (Papisma).
- Fatimah, A. T. M. F., Fahimah, M. R. N., & Anuar, R. M. (2018). Polemik Antara Penerimaan dan penolakan Vaksinasi Kanak-kanak: Analisis dari Perspektif Islam. *Jurnal Syariah*. 26(2), 201-230). Kuala Lumpur: Universiti Malaya.
- Fatimah, A. T. M. F., & Anuar, R. M. (2017). Penetapan Keperluan Vaksinasi Terhadap Kanak-kanak Oleh Pemerintah Menurut Perspektif Syarak. *ISLAC 2017*.
- Hassan, S. A., & Khairuldin, W. M. K. F. W. (2020). Research Design Based on Fatwa Making Process: An Exploratory Study. *International Journal of Higher Education*, 9(6), 241-246.
- Said, N. A., & Khairuldin. (2017). Freedom of Speech in Islam and its Connection with Street Demonstrations. *International Journal of Academic Research in Business and Social Sciences*, 7(4), 122-129.
- Khairuldin, Embong, A. H., Anas, W. N. I. W. N., Ismail, D., Ibrahim, I., & Fauzi, N. (2017). Freedom of Speech: A Comparative Study between Islam and Malaysian Laws. *International Journal of Academic Research in Business and Social Sciences*, 7(2), 2222-6990.
- Ibrahim, I., & Khairuldin. (2017). Fatwa as a Medium Da'wah: Studies on the Role of Mufti as a Preacher. *International Journal of Academic Research in Business and Social Sciences*, 7(4), 10-18.

- Umar, M. (2019). Kewajiban Mengambil Vaksin Mengikut Jadual Imunisasi Kebangsaan Daripada Perspektif Islam. *Bayan Linnas Siri ke-167*. Putrajaya: Pejabat Mufti Wilayah Persekutuan.
- Walkinshaw. (2011). Mandatory vaccinations: The international landscape. *Canadian Medical Association Journal*. 183(16), e1167-e1168). doi: 10.1503/cmaj.109-3993.
- World Health Organization. (2019). *Immunization*. <https://www.who.int>. Accessed on 15 September 2019.
- Zakuan, Z. D. (2019). Imunisasi: Sejarah, Sains & Sumbangan, *dalam Lecture Notes: Immunisation Educators Training and Accreditation Program*. Kuala Lumpur: Immunise4Life.
- Zakuan, Z. D. (2018). Vaksin – Sumbangan Islam Kepada Dunia. Kuala Lumpur: Islamic Medical Association Malaysia.