



ISSN: 2230-9926

Available online at <http://www.journalijdr.com>

IJDR

International Journal of Development Research
Vol. 09, Issue, 12, pp. 32346-32350, December, 2019



RESEARCH ARTICLE

OPEN ACCESS

METHODOLOGICAL DEVELOPMENT OF EDUCATIONAL VIDEO ON HEPATITIS B FOR DEAF AND HEARING PEOPLE

¹Lorita Marlena Freitag Pagliuca and ²Valéria Jâne Jácome Fernandes

¹Professor, Universidade da Integração Internacional da Lusofonia Afro-Brasileira, Redenção, Ceará, Brazil; Nursing Master Curs

²Master Degree, Universidade da Integração Internacional da Lusofonia Afro-Brasileira, Redenção, Ceará, Brazil; Nursing Master Curs

ARTICLE INFO

Article History:

Received 06th September, 2019
Received in revised form
26th October, 2019
Accepted 08th November, 2019
Published online 30th December, 2019

Key Words:

Nursing; Health Education; Hepatitis B;
Audiovisual Resources; Deaf; Hearing.

ABSTRACT

Objective: To describe the methodological development process of making an educational video in health. **Materials and Methods:** Methodological study of health educational video development using a model consisting of pre-production, production and post-production phases. It used the theoretical framework composed of three steps, namely: pre-production, which includes the elaboration of the synopsis, theme, script and storyboard; production and post-production. **Results:** The conceptual aspects of each phase of construction are covered with detailed examples of the preproduction phase, based on the theme of Hepatitis B, its prevention and personal care were addressed; also detailed aspects of gestural communication for the deaf, Seeking to ensure accessibility to the deaf audience and listener. **Conclusion:** It is believed that the educational video to health professionals interventions contribute to the public understanding of the subject. Educational videos have the potential to mediate hospital and outpatient practices.

Copyright © 2019, Lorita Marlena Freitag Pagliuca and Valéria Jâne Jácome Fernandes. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Lorita Marlena Freitag Pagliuca and Valéria Jâne Jácome Fernandes. 2019. "Methodological development of educational video on hepatitis b for deaf and hearing people", *International Journal of Development Research*, 09, (12), 32346-32350.

INTRODUCTION

In 2015, it was estimated that less than 5% of people with chronic liver disease were aware of their condition and less than 1% had access to effective antiviral therapy (RIOU *et al.*, 2015). There are 887,000 deaths per year, the vast majority due to complications such as cirrhosis and liver cancer (WORLD HEALTH ORGANIZATION, 2017). Hepatitis B is an immune preventable disease. Vaccination against virus infection is indicated for all newborns; unvaccinated children, adolescents, adults and pregnant women or without proof of vaccination. Highly efficient three-dose vaccine provided by the Brazilian government in its health services, as part of the vaccination schedule (CHACHA *et al.*, 2011; INOUE; YASUHITO, 2016). It is considered ways to prevent this disease the adoption of safe sexual practices with the use of condoms in all sexual relations, whether anal, vaginal or oral sex; not sharing personal objects such as razors, toothbrushes, manicure and pedicure supplies; not reusing equipment for drug use, tattoo making and piercing (JEMAL *et al.*, 2011). Hepatitis B vaccine has been available since the 1980s, is effective, but coverage is not satisfactory.

In 2017, of the 193 countries in the world, less than half had the first vaccine dose at birth and only 37 countries have coverage of over 95%. Regarding the analysis of the estimated achievement of the three doses, in the registry of 184 countries, 80% have lower coverage, being eleven from the African continent (WORLD HEALTH ORGANIZATION, 2019). There are 360 million people with hearing loss, with mild or moderate to severe or profound deafness (JEMAL *et al.*, 2011). In Brazil 23.92% of the population referred to them selves as living with a disability; of this, 21.31% had some type of hearing impairment (MARTINS; NAPOLITANO, 2017). Deaf people exhibit greater vulnerability due to difficulties in accessing health and rehabilitation services, lack of equipment and trained professionals for their care and lack of specific epidemiological data from this group, having restricted their right to be included in the teaching-learning process in health due to the rarity of accessible material (SHARPLES, 2013; ARAGÃO *et al.*, 2016). Assistive Technology is a set of interdisciplinary knowledge, artifacts, methods and services used to maintain or improve the functional capacity of persons with disabilities. They support professional practice, favor nursing care and have the potential

to improve quality of life, managing risks and personalizing support (CALHEIROS *et al.*, 2018). In nursing, we have invested in the production of educational virtual tools for teaching and care practice, which are known as hypermedia. Such tools come from the combination of various media resources (texts, prints, animations, videos, among others), and are easily disseminated on the Internet (CAMPOY *et al.*, 2018; CARVALHO *et al.*, 2019). Currently, they are an important resource for education, presenting positive results regarding the implementation of the videos produced and improving the knowledge of the target audience (WANG *et al.*, 2015; BROWN *et al.*, 2017). The appropriation of visual technology can guide and contribute to the dialogue of the culture of the deaf and strengthen their identity (SILVA; FARIA, 2016). Thus, the literature reports educational videos in sign language as examples of the applicability of technology to the benefit of the disabled public (BARBOSA; MÜLLER, 2018). The theme covers the prevention of hepatitis B and its choice took into account the epidemiological impact of the disease in the country and the world, its content was previously validated. This study describes the methodological process of developing educational video about hepatitis B for deaf and hearing people.

MATERIALS AND MÉTODOS

Methodological study of health educational video development using a model consisting of the pre-production, production and post-production phases (KINDEM; MUSBURGER, 2005; FLEMING *et al.*, 2009). It will be presented in detail the pre-production phase which consists in the preparation, planning and construction of the video project to be produced. Integral parts of the pre-production phase are: the synopsis, theme, script and storyboard. The synopsis, in up to five lines, describes the idea of what will appear in the video; the theme brings the specifications of the characters, the events, the location, the temporality and the course of the dramatic action; the script details what will happen in the video, being divided into scenes in order to guide the production of the footage; the last phase, storyboard, consists of depicting the script's scenes in sequential cartoon format, similar to a comic book, and guides the creative process towards viewing the scenes before they are recorded (KINDEM; MUSBURGER, 2005).

RESULTS

Synopsis: It comprises the first outline of the video, expressing the central idea to be developed. This is a brief summary of the video's context and objectives, as noted below. The video depicts the fictional story of Laura, Eduardo and Claudia. They are participating in the health week developed by the Health Unit of their neighborhood. And attend a lecture developed by the nurse about the concept, ways of transmission, diagnosis and prevention of hepatitis B. The narrative has simultaneous interpretation in sign language, ensuring access to information from the deaf and hearing public.

Theme: It has a greater richness of elements, including characters, scenario description and situations, as well as their characteristics. The layout of the plot obeys the logical sequence of events in order to guide the construction of the script scenes. Educational video of social intervention for prevention of hepatitis B. It will be produced in animation

format with simultaneous interpretation of the narrative in sign language, to ensure accessibility to the hearing and deaf audience. The fictional scenes approach the daily reality of the target audience; the same logic for costume construction and characterization. The main scenes take place in the context and space of the Basic Family Health Unit (BFHU) where Health Week is celebrated, offering the community various activities, among them concerning Hepatitis B. The representative characters of the community will be Laura, 19, with visible shoulder tattoo; Eduardo, 17, and Claudia, 24, four months pregnant. The story begins with the nurse's invitation to people who are at BFHU to participate in the health week's activities. Then the characters are presented, each with a gestural sign personalized for identification by the deaf audience. In the development are addressed the ways of transmission and prevention of hepatitis B, with examples of the daily lives of Laura, Eduardo and Claudia. The video ends encouraging the disclosure of information to friends, family and community..

Script: The structured script has continuous text with specific demarcations signaling the beginning and end of each scene, narrator talk, character talk and scenario detailing to facilitate storyboard construction.

Scene 1: Instrumental music and animation with a yellow bow that is the symbol of the fight against viral hepatitis. Signboard framing the theme Hepatitis B. Images of people, men and women of different ages, in daily activities, talking, walking, dating, in health care. (10 seconds). Narrator: Hello, how are you? Welcome to the Hepatitis B educational material. This material is intended to inform men and women, deaf and hearing people about ways to prevent Hepatitis B. (This sign introduces the sign language interpreter). To facilitate learning, let's follow the fictional story of Laura, Eduardo and Claudia (introduces the characters). They participate in the health week developed by the Health Unit of the neighborhood where they live. Animation: lecture in the courtyard of the Health Unit and the characters in the first chairs attentive to explanations. Fits each of the characters on the screen, shows their characteristics (five seconds). Laura: 19, white with shoulder tattoo; Eduardo: 17 years old, white, communicative; Claudia: 24 years old, black, four months pregnant; nurse in white coat.

Scene 2: Image of the lecture room. Narrator: Hepatitis B is a disease caused by a virus. It is transmitted from one infected person to another through fluids such as blood, semen and vaginal discharge. Inside our body it causes liver infection. Animation: Displays the virus and ways of transmission.

Scene 3: Narrator: Hepatitis B is a disease for which a vaccine exists; it protects against infection and can be taken by everyone regardless of age, including pregnant women; on screen the title VACCINE. Animation shows the body's vaccine and defenses against the virus with drawing of defense cells chasing the virus. It presents the vaccinable population: elderly, pregnant, child, adolescent and young adult. The narrator goes on: The vaccine is freely available in health facilities by the Brazilian government. The adult population scheme comprises three doses and is highly efficient - Animation shows health system logo and adult vaccination booklet. In the next entry we highlight the three doses of the vaccine in large text.

Scene 4: Narrator: In addition to getting the vaccine, to protect yourself from this disease, it is important to have safe sexual practices with condom use in all relationships, whether anal,

vaginal or oral - Condom use animation during sexual intercourse. Narrator: Do not share personal effects such as razors, toothbrushes, manicure and pedicure supplies; do not reuse equipment for drug use, tattoo making and piercing - Animation shows sharp piercing materials and right after a hand waves negative sign.

Storyboard: Using Adobe InDesign software, the script scenes were represented in sequential drawing format, similar to a comic book. The storyboard assists the researcher and animation technician in final textual and graphic adjustment. For the purpose of marking the presence of the narrator will be used the designation PRESENTER.

The following scenes 1-4 reproduce animation suggestions for characterizing and directing video animation.

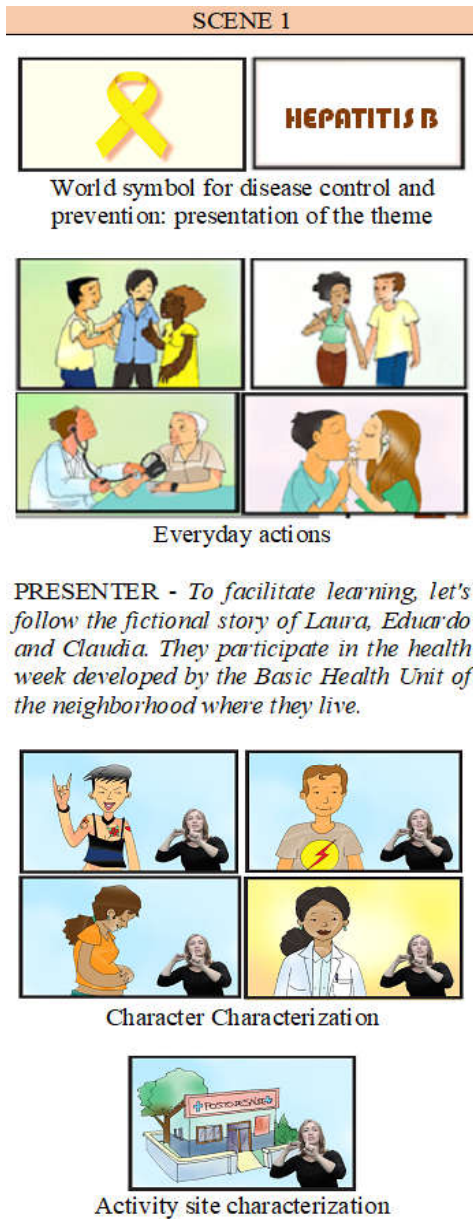


Figure 1. Illustration of SCENE 1

In the process of technical validation of the script and storyboard, direct consultation was made with a professional with expertise in the production of educational video for health. This supervised the writing of the script from its initial version, adaptation to the storyboard, conclusion and final adjustments.

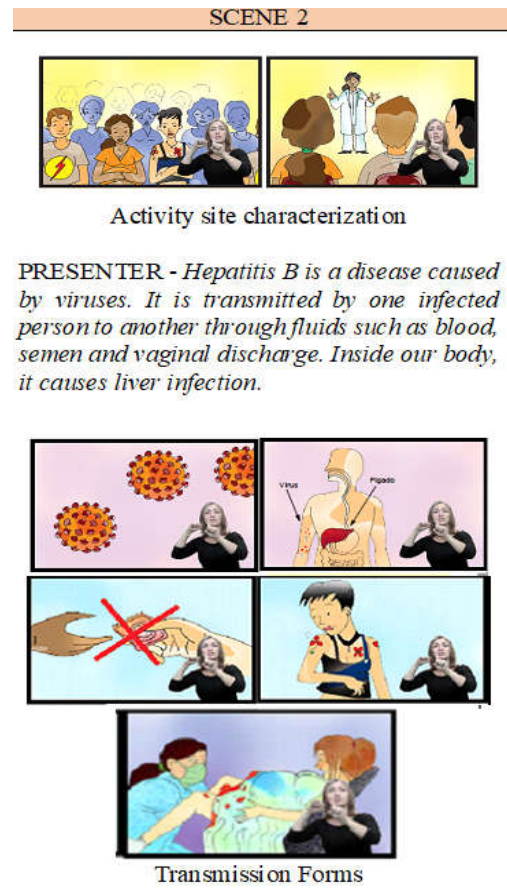
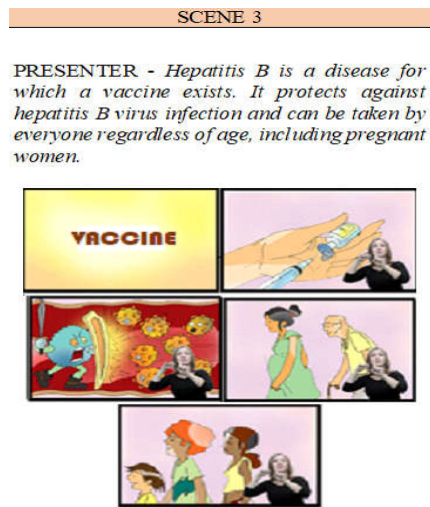


Figure 2. Illustration of SCENE 2



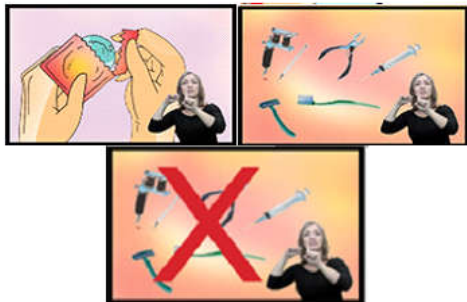
PRESENTER - The vaccine is freely available in health facilities by the Brazilian government. The plan for adult population comprises three doses and is highly efficient.



Figure 3. Illustration of SCENE 3

SCENE 4

PRESENTER - In addition to receiving the vaccine to protect against this disease, it is important to have safe sexual practices with condom use in all relationships, whether anal, vaginal and oral sex. Do not share personal effects, such as razors, shaving brushes, manicure and pedicure supplies; Do not reuse equipment for drug use, tattoo making and piercing.



Characterization of transmission forms

Figure 4. Illustration of SCENE 4

The content was built in simple and objective language, considering the ability of understanding the target audience and aiming to facilitate the scripting. It was obeyed in the process of construction of the scenes, the same sequence of information presented in the content. Adding to the scientific text the narrative of the story and maintaining the consistency of the information. An animated video about 12 minutes long was obtained as a product.

DISCUSSION

Educational materials contribute to knowledge exchange and sharing of ideas and experiences and are important teaching-learning tools (ÁFIO *et al.*, 2014). Accompanying the needs of the connected world, multimethods and hypermedia (videos, online courses) stand out today as effective teaching tools (TAVARES *et al.*, 2018). Thus, it is healthy to establish a methodological system that ensures the reliability of the knowledge conveyed, optimizes the research time and the probability of success in the educational process. The videos conceptualized as “Social Intervention” consist of media intended for specific audiences or groups, lasting on average 15 to 20 minutes, to raise awareness and change behaviors facing a health problem (MORAES, 2008). The incorporation of technological supports applied in the construction of knowledge and the transmission of information is an important step, as it implies choosing the most appropriate alternative for the teaching and learning process according to the required needs of the target audience (PIMENTEL *et al.*, 2016). The process of content assessment by experts about quality and sufficiency in the construction of health education technologies aims to avoid any negligence of important information, abbreviated and superficial exposures or without the emphasis proportional to its importance, which can trigger compromise in effectiveness of technology (GALDINO NETO *et al.*, 2019). Even with a rigorous construction, based on the scientific literature on the subject, it was important to validate the video content and its evaluation by experts. The researcher's direct cooperation with the scriptwriting expert made the process of technology construction quicker, without

compromising scientific credibility. The construction of health education materials should be closer to the universal design model, in order to minimize vulnerability aspects related to the difficulty of access to information (SHARPLES, 2013). In this sense, in the construction of the script was considered the ability of the target population to understand about the content to be disclosed, with adequacy of technical terms in health. It is possible to find in the literature studies that indicate success of effectiveness in the use of video in various health topics. For example, a study conducted in Michigan to improve patients' knowledge of asthma and inhaler practice after video (BROWN *et al.*, 2017). Another study in Atlanta found an increase in the understanding of technical terms used in urology and the identification of anatomical structures by patients after educational video presentation (WANG *et al.*, 2015). Educational videos facilitate health promotion actions, with the potential for change to modify behaviors in the face of health problems, since they are easily accessible media (PLETSCH; LEITE, 2017).

Conclusion

The relevance of this work comprises the simple and clear description of an extremely important methodological step in the construction of educational videos. The production stage of the educational video, thus performed, was positive in preventing linguistic, structural and presentation of educational material inadequacies. It has been shown to be effective and efficient, with optimization of technology construction time, while proposing the replacement of traditional script validation by specialists, by direct audiovisual professional tutoring of validated content.

REFERENCES

- ÁFIO, A. C. E., BALDINO, A. C., ALVES, D. S. A., CARVALHO, L. V. 2014. Analysis of the concept of nursing educational technology applied to the patient. *Rev Rene*, 15(1), 158–165; doi: <https://dx.doi.org/10.15253/2175-6783.2014000100020>
- ARAGÃO, J. S., FRANÇA, I. S. X., COURA, A. S., MEDEIROS, C. C. M., ENDERS, B. C. 2016. Vulnerability associated with sexually transmitted infections in physically disabled people. *Ciênc Saúde Coletiva*, 21(10), 3143–3152. doi: <https://dx.doi.org/10.1590/1413-812320152110.20062016>
- BARBOSA, G. L. T., MÜLLER, K. 2018. Accessible content production to deaf people on the web: analysis of the video channel Ôxe. *Rev Bras Ciênc Comunic*, 41(2), 153–165. doi: <https://dx.doi.org/10.1590/1809-5844201829>
- BROWN, S., LEHR, V. T., FRENCH, N., GIULIANO, C. A. 2017. Can a short video improve inhaler use in urban youth? *J Pediatr Pharmacol Ther*, 22(4), 293–299. doi: <https://doi.org/10.5863/1551-6776-22.4.293>
- CALHEIROS, D., MENDES, E., LOURENÇO, G. 2018. Considerations about the assistive technology in the Brazilian educational scenario. *Rev Educ Esp*, 31(60), 229–244. doi: <http://dx.doi.org/10.5902/1984686X18825>
- CAMPOY, L. T., RABEH, S. A. N., CASTRO, F. F. S., NOGUEIRA, P. C., TERÇARIOL, C. A. S. 2018. Bowel rehabilitation of individuals with spinal cord injury: video production. *Rev Bras Enferm*, 71(5), 2376–2382. doi: <https://dx.doi.org/10.1590/0034-7167-2017-0283>
- CARVALHO, A. T., ÁFIO, A. C. E., MARQUES, J. F., PAGLIUCA, L. M. F., CARVALHO, L. V., LEITE, S. S.

2019. Instructional design in nursing: assistive technologies for the blind and deaf. *Cogitare Enferm*, 24, e62767. doi: <http://dx.doi.org/10.5380/ce.v24i0.62767>
- CHACHÁ, S. G. F., FERREIRA, S. C., COSTA, T. V., ALMEIDA FILHO, L. C., VILLANOVA, M. G., SOUZA, F. F., et al. 2011. Clinical, demographic and epidemiological characteristics of patients with hepatitis B followed at a university hospital in southeastern Brazil: predominance of HBeAg negative cases. *Rev Soc Bras Med Trop*, 44(1), 13–17. doi: <https://dx.doi.org/10.1590/S0037-86822011000100004>
- FLEMING, S., REYNOLDS, J., WALLACE, BARB. 2009. Lights...camera...action! A guide for creating a DVD/Video. *Nurse Educ*, 34(3), 118–121. doi: 118-21. <https://dx.doi.org/10.1097/NNE.0b013e3181a0270e>
- GALDINO NETO, N. M., ALEXANDRE, A. C. S., BARROS, L. M., SÁ, G. G. M., CARVALHO, K. M., CAETANO, J. Á. 2019. Creation and validation of an educational video for deaf people about cardiopulmonary resuscitation. *Rev Latino-Am Enfermagem*, 27, e3130. doi: <http://dx.doi.org/10.1590/1518-8345.2765.3130>.
- INOUE, T., YASUHITO, T. (2016). Hepatitis B virus and its sexually transmitted infection – an update. *Microbial Cell*, 3(9), 420–437. doi: <https://dx.doi.org/10.15698/mic2016.09.527>
- JEMAL, A., BRAY, F., CENTRO, M.M., FERLAY, J., WARD, E., FORMAN, D. 2011. Global cancer statistics. *Cancer J Clin*, 61: 69–90. doi: <https://doi.org/10.3322/caac.20107>
- KINDEM, G., MUSBURGER, R. B. 2005. *Introduction to media production: from analog to digital*. Boston: Focal Press.
- MARTINS, S. E. S. O., NAPOLITANO, C. J. 2017. Inclusion, accessibility and permanence: the right to higher education for people with hearing impairment. *Educ Rev*, 3, 107–126. doi: <http://dx.doi.org/10.1590/0104-4060.51043>
- MORAES, A. F. 2008. Cultural diversity in health-related videos. *Interface Comunic Saúde Educ*, 12(27), 811–822. doi: <https://doi.org/10.1590/S1414-32832008000400011>
- PIMENTEL, K. S., CONDE, I. B., MENDES, R. M. Z., FEITOSA, C. R. S., PAIXÃO, G. C., PANTOJA, K. S. P. M. 2016. Production and evaluation of health education videos with translation into Brazilian sign language. *Rev Educ Esp*, 31(60), 181–196. doi: <https://doi.org/10.5902/1984686X24101>
- PLETSCH, M. D., LEITE, L. P. 2017. Analysis of scientific production on the inclusion in Brazilian higher education. *Educ Rev*, 3, 87–106. doi: <http://dx.doi.org/10.1590/0104-4060.51042>
- RIOU, J., AÏT AHMED, M., BLAKE, A., VOZLINSKY, S., BRICHLER, S., EHOÏÉ, S., BOËLLE, P. Y., FONTANET, A. 2015. Hepatitis C virus seroprevalence in adults in Africa: a systematic review and meta-analysis. *J Viral Hepat*, 32(4), 244–255. doi: <https://doi.org/10.1111/jvh.12481>
- SHARPLES, N. 2013. An exploration of deaf women's access to mental health nurse education in the United Kingdom. *Nurse Educ Today*, 33(9), 976–980. doi: <https://doi.org/10.1016/j.nedt.2012.10.017>
- SILVA, D., FARIA, N. 2016. Subtitles and windows: a question of accessibility. *Rev Sinalizar*, 1(1), 65–77. doi: <https://doi.org/10.5216/rs.v1i1.36156>
- TAVARES, A. P. C., LEITE, B. S., SILVEIRA, I. A., SANTOS, T. D., BRITO, W. A. P., CAMACHO, A. C. L. F. 2018. Analysis of Brazilian publications on distance education in nursing: integrative review. *Rev Bras Enferm*, 71(1), 214–222. doi: <https://dx.doi.org/10.1590/0034-7167-2016-0454>.
- WANG, D. S., JANI, A. B., SESAY, M., TAI, C. G., LEE, D. K., ECHT, K.V., et al. 2015. Video-based educational tool improves patient comprehension of common prostate health terminology. *Cancer*, 121(5), 733–740. doi: <https://doi.org/10.1002/cncr.29101>
- WORLD HEALTH ORGANIZATION. 2017. *Global hepatitis report*. Retrieved from <https://www.who.int/hepatitis/publications/global-hepatitis-report2017/en/>
- WORLD HEALTH ORGANIZATION. 2019. *Estimate of national immunization coverage*. Retrieved from <https://www.who.int/immunization/monitoring>
